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The Open University of Tanzania
Faculty of Education
P. O. Box 23409
Dar es Salaam
Tanzania

Email: jipe@out.ac.tz
Website: www.out.ac.tz

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All correspondence should be addressed to:
The Chief Editor –JIPE
The Open University of Tanzania
P.O. Box 23409
Dar es Salaam, Tanzania
or
Email: jipe@out.ac.tz



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## The Purpose of the Publication

The Journal of Issues and Practice in Education (JIPE) is a refereed journal produced by the Faculty of Education of the Open University of Tanzania. It is published twice a year that is June and December. The journal is designed to inform both academics and the public on issues and practice related to the field of education.

The journal provides academics with a forum to share experiences and knowledge. It also informs the public about issues pertinent to their day to day educational experiences. Sharing information related to education is important not only for academic, professional and career development but also for informed policy makers and community activity in matters pertaining to the field of education.

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## Editorial

Dear JIPE readers, on behalf of the editorial board, I wish to introduce to you this Issue Number 2, Volume 12 of Journal of Issues and Practices of Education (JIPE) of the Faculty of Education at the Open University of Tanzania. I wish as well to acknowledge the efforts and trust given to this Journal by authors, reviewers, and editors.

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This issue is comprising of 8 articles on a diverse a range of issues in the fields of education. It is the expectation of the Chief Editor and the editorial secretariat that you will enjoy reading articles published in this issues and you continue contributing articles in this journal d the teaching and learning processes.

Dr Newton Kyando
**CHIEF EDITOR**

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# The Students ways of Financing the Higher Learning Education at The Open University of Tanzania

Joseph Magali
E-mail: joseph.magali@out.ac.tz, josephmagali@yahoo.com
**The Open University of Tanzania**

**ABSTRACT**
*This paper assesses the ways the students from the Open University of Tanzania finance their education by using descriptive analysis. The study involved 182 students from Manyara regional centre in Tanzania who were selected by using the systematic random sampling technique. The study reveals that only 45% of the students finance higher education by using a loan from commercial banks. The study further found that students financed their higher education by using money from SACCOS, NGO MFIs and VICOBA. This paper recommends that commercial banks and other MFIs devise ways to finance higher education in Tanzania.*

***Keywords: Students, Ways of Financing the higher learning education, Open University of Tanzania***

## INTRODUCTION

The Open University of Tanzania (OUT) is a public higher learning institution that offers academic programmes leading to awards of certificates, diplomas, undergraduate and postgraduate qualifications since 1992. OUT delivers its programmes using the Open and Distance Learning (ODL) system. The total number of students admitted into certificates, diploma, degree and postgraduate programmes by OUT Since 1999-2018 are more than 125,000 (OUT Facts and Figures, 2018). OUT's students finance their higher learning in different ways as other colleges and universities globally do. Countries globally, including the European Union, stressed the diversified funding sources of higher education, which includes developing public-private partnerships (PPP). However, the PPP strategy can be successful, if countries adopting this strategy have long term investment in higher education (Gherghina and Crețan, 2012). Pranevičienė and Pūraitė (2010) argued that despite the funding formulae are good instruments for allocation of government resources to higher learning students, they are not always good to ensure the quality and equity access of the higher education. Goksu and Goksu (2015) stated that the participation of the private sector in higher education financing in the U.S.A, United Kingdom and Korea was more important than for the public sector where they spent 1.5-2.5% of their GDPs. However, public sector participation was more dominant in most European countries. Hillman (2016) pointed out that the increase in the number of college graduates in the United States promoted the idea of using the performance-based finance model in public universities. However, meeting performance goals was difficult if a college had no adequate financial resources to support the students' achievement. Mitchell, Leachman and Masterson (2017) reported that the great economic recession of 2008 has forced the government of the United States to reduce the funds for higher education students and this has contributed to higher tuition and reduced education quality by some of the colleges. Moreover, the rising of higher education expenses troubles poor families because they can't afford to pay for it.

Therefore, Mitchell et al. (2017) recommended loans subsidization for poor students especially for those who are academically capable. Juris et al. (2006) argued that the fees for public higher learning institutions in Lativia were high comparing with affordability status for poor and disadvantaged students. However, Romanian private and public universities offered discounts and scholarships to attract potential higher learning students. Attracting sponsorship and funding from the private sector were also used as other strategies to finance higher education (Filip, 2012). Brazil finances higher education using public and private means. However, the cost of higher education was higher in the public university compared to the private university and this posed a threat to the quality of education in the private higher learning institutions (Chavez, 2017). Dunga and Mncayi (2016) argued that methods of financing higher education exclude the majority of students in developing countries. Johnstone (2003) reported that the current worldwide mechanism for financing higher education was to emphasize greatly cost-sharing which has implications on increasing the tuition fees and reduction of the levels of public subsidies. However, this increases the burden for parents and students to finance higher education, particularly in developing countries. Azmat and Simion

(2017) argued that moving from free education to cost-sharing in England has adversely affected the poor students from entering university. However, financing of higher education was done thorough using the maintenance grants and loans which were insured. Asian Development Bank (2012) argued that the expansion of higher education systems and students' enrollment in the past decade have not matched with the increment of funds for higher education in Asia. However, higher learning institutions failed to meet the education quality and equality because the universities struggle to increase income through various strategies such as the introduction of high-demand programs, increasing fees for courses, expanding international programs, and introducing executive programmes. Lee (2014) argued that the decline in the confidence in offering higher education in Asian universities for the past three decades was not caused only by lack of funding but also inadequacies of university structures that would enable the efficient use of funds and facilities. Therefore, to overcome this problem, they have formulated new policies and practices which focus on quality assurance, university governance, funding mechanism, private universities and community colleges management and internationalization.

Direct cost in public higher education at the Sultan Qaboos University in Oman was fully subsidized by the Government in the form of loan and students did not incur any direct cost and the condition was that the loans should be recovered by students in the first twenty years of their employment. However, the new policy emphasized the individual students contribute to the cost of their education without restricting their access to higher education by considering efficiency and equity (Ai-hajry, 2002). The World Bank (2010) argued that in most Sub-Saharan African countries, the enrollment rate of students in higher education was higher than the financing capabilities. Therefore, many universities have adopted the cost-sharing strategy where students finance their education through loans and financial aids; the strategy which was also used by low-income students. Oketch (2016) pointed out that African universities particularly in sub-Saharan Africa have devised new solutions for reducing the students' reliance on state funds such as private funding for supporting the bright students from disadvantaged households. The World Bank (2010) further emphasized there was a need for higher learning institutions to link the financing model and graduates' employability so that the graduates may contribute positively to the economic growth of their countries. Bitzer and De Jager (2018) contended that it is not feasible to implement free higher education in South Africa. South Africa's national student loan scheme considered larger numbers of historically disadvantaged students into higher education. In the same way, Kenyan, Botswana and Tanzanian loan schemes addressed the issue of equity (Pillay, 2010). Despite the Nigerian government finances about 90% of the total Universities' expenditure, the funds allocated to university education in Nigeria was inadequate. Because the private university depended on its proprietor and other sources of funding, charged a higher fee (US$ 9,168) compared to a State-owned university (US$ 4,835) (Ahmed, 2015). Cooksey, Levey and Mkude (2003) stated that the overreliance on state funding on higher education in Tanzania has resulted in inadequate resources, low enrolments, high unit costs, institutional inefficiency, student unrest, non-accountability and laxity.

Therefore, the Tanzania 1995 Education and Training Policy stressed not only the liberalization and expansion of higher education but also cost-sharing and continued international cooperation. The policy listed parents' contributions, students' loans and institutions sale of services as strategies towards achieving the cost-sharing in higher learning institutions in Tanzania. However, changes of the funding policy of the international organizations such as the World Bank has affected the release of funds for higher learning institution in Tanzania and this accelerated the students' inability to afford to pay the tuition fee. This has increased the burden for poor families to finance higher education for their children (Johnson, 2012). This paper concentrates on how Open and Distance Learning (ODL) students finance their higher education because the modalities of financing may differ from that of conventional higher learning institutions.

**Theoretical framework: Human Capital Theory:** When individuals spend financial and time resources, expect that, they will earn more than the resources used. Therefore, students pursue a certain programme because they expect that, the programme they study will result in higher lifetime earnings. Similarly, the governments decide to allocate resources to education because it expects that the resources invested will have a positive contribution to economic growth. This implies that individuals, households, and societies make rational choices and decisions to invest in education and training. The government recognizes that through learning students will develop and enhance skills that will be used to improve labour productivity. It implies that, through learning, the individuals acquire the skills which will be useful in the workplace. When hired the learned individuals increase their levels of income through wages and salaries and work; individuals promote both productivity and economic growth for their nations (Schultz, 1961; 1981). Therefore, this paper uses the human capital theory because the students at OUT spend their financial resources to acquire education in expectation of gaining more financial resources after graduation. This can be achieved by securing self-employment or being employed. Moreover, since the paper focuses on how the students finance their education at OUT; the author intends to match the human capital theory and the ways ODL students at OUT finance their higher learning education.

## Methodology

This study uses descriptive analysis to explain the ways open and distance education students at the Open University of Tanzania, which is an ODL institution, finance their higher learning education. The sample size of 182 (from the total population of 471) students from the Manyara regional centre, in Tanzania, was used for the study. The study used a systematic random sampling procedure where every 3$^{rd}$ student from the list was picked for an interview. The study used face to face interview technique where the researcher personally asked questions to students. This was possible because the researcher was living in the centre since 2014. The participants of the research were asked to express their consents before filling the questionnaires. Also, other ethical issues such as anonymity, confidentiality, using the real data from the field and plagiarism avoidance were considered. The study was done in 2017.

## Literature Review

### Higher Education Financing Strategies

Dowd and Shieh (2013) stated that the community college financing strategies in the USA involved funds from state and local governments, operating grants, student financial aids from the federal government, and students themselves. Also, the private sectors were encouraged to finance higher education in terms of charities or contributions. Dalrymple (2016) found that despite the traditional approaches of financing higher education in low-income countries such as free education policies, cash transfers, stipends, scholarships and decentralization had positive effects on equity dimensions; there was a need to identify other sustainable higher education financing approaches. Students' strategies for financing higher education in the USA included saving money and earning college credits. Other strategies included choosing schools and matching the application for college and financial aids, prepaid tuition plans, studying in less expensive colleges, earning advance credits before admission in the college degree, earning rewards from shopping**,** securing the community colleges scholarship or fee waiver and working while attending school (Vilorio, 2013). Yang (2011) asserted that the higher education financing strategies for students in China included scholarships or grants and student loans where students were issued loans without subtracting the interest payments. McFarland et al. (2018) revealed that students in the USA financed their higher education through financial aids (grant and scholarship) and loans. The study further noted that in the academic year 2015–16 and 2016–17, the number of grants and scholarships awarded to students at private nonprofit institutions were higher than for students in the 4th and 5th year from the public colleges and universities respectively in the USA relied upon loans to cover their college expenses in 1995–96.

The study further revealed that offering financial assistance predicted significantly the enrollment of the students in courses of their first choices. Hutton (2013) found that using the loan to pay for university fees at the University of the West Indies, Mona and the University of Technology in Jamaica was uncertain because many students were unable to use other financial strategies to finance their higher education. Armstrong and Chapman (2011) argued that in Thailand students financed their higher learning education by using income-contingent loans which have advantages over mortgage-type loans because they provided insurance coverage for the loans during the repayment hardships. Hanover, Research (2014) argued that while the universities devise strategies to increase enrolment such as using branding and other marketing strategies and raising fees to expand their fundraising capabilities; numerous families experience diminished ability to pay for a college education. Alphin Jr, Chan and Lavine (2017) revealed that because of depriving the government loans in Nigeria, students struck and this forced the government of Nigeria to order the higher learning institutions (HLIs) to raise funds to supplement government funding. Therefore, the students in Nigeria financed their education through government grants and community assistance. Other sources of funds for HLIs in Nigeria were financial aids, sale of services and business enterprises. Due to inadequate fiscal resources, Akinyemi and Bassey (2012) recommended the higher learning institutions in Nigeria to find ways to enhance the effective utilization of the available educational scarce resources. They further recommended that government and private organization should increase funds for HLIs. Akinyemi (2012) asserted that the funding sources for higher education in Kenya included the government, parents, individuals, firms and cooperative bodies. The universities sources for earning income included tuition fees, endowment funds or donation, grants, private contributors, commercial ventures, alumni relations and associations, undertaking researches and consultancy services and manufacturing or processing activities. Duru-Bellat (2012) argued that if the households in Kenya financed their dependants' higher education using savings, borrowing from commercial banks and relying on friends and relatives' contributions, might face challenges because these means have limitations.

Therefore, they recommended that the government should devise strategies to ensure that students from poor families also get loans to finance their higher education. Rugambuka (2008) found that the loan scheme in Tanzania was partly not performing well in terms of application procedures, disbursement of funds to students and loan recovery. Nyahende (2013) suggested that Higher Education Students' Loan Board (HESLB) had worked successfully to disburse loans to higher learning students in Tanzania and the recovery efforts for loans from beneficiaries since 1994 was satisfactory. The study further revealed that the students' loans recovery strategies included, public awareness, publishing names of the loan beneficiaries, follow-up on job vacancies and mindset awareness change on the importance of loan repayment to the beneficiaries. Makulilo (2014) found that there was a drastic reduction in the role of the government in financing higher education in Kenya since the 1990s where the students' loans allocation from the government served 50% of students. This had negative impacts on the affordability and availability of education, especially from low-income families who depended solely on government's loans. The author further argued that cost-sharing of the higher education policy cannot suit the Tanzanian and Kenyan situations. Mussa (2015) asserted that implementation of the HESLB in Tanzania from 2006 – 2012 was inefficient and unsustainable because it lacked adequate support for poor students and it failed to recover the loans from beneficiaries. Mgaiwa (2018) similarly, found that the government funds for public university education in Tanzania from 2010/2011 to 2015/2016 were unreliable and unsustainable.

**The Study Gaps**

Most of the studies which analyzed how higher learning education is financed were done outside Tanzania. The literature review also indicates that few studies which have been done in Tanzania on higher learning financing mechanism, mostly focus on the effectiveness of the HESLB operations (Rugambuka, 2008; Nyahende, 2013; Mussa, 2015; Mgaiwa, 2018). The literature, therefore, to the best of the author knowledge, indicates that none of the studies concentrates on how the ODL students finance their higher education. It should be noted that the ODL students are different from conventional students because they study while working, hence the ways they finance their education may differ from the conventional students. Therefore, this study may contribute to the literature on the ways various students from higher learning institutions finance their education, including those from ODL higher learning institutions, particularly at OUT.

**Results and Discussion**

**Bio-data of the Respondents**

The data shows that 73% of respondents were males while 27% were females. The data indicates that the majority of the students who joined the university were males. Manyara region is dominated by livestock keepers, who do not prioritize many educating female children and this ultimately may result in a low enrolment rate for female students in the higher learning institutions.

**Residents of the Students**

The study reveals that 55% of the students were coming from rural areas while 45% were coming from urban areas. The data indicates that the Open University of Tanzania, Manyara regional centre by having the district exams centres in Mbulu, Kiteto and Kondoa; it attracts many potential students from rural areas to join the university.

**Marital Status of the Students**

The results reveal that 40% of the students were single while 60% of the students were married. The study reveals that OUT admit students with diverse marital status. As the data shows that the majority of respondents were married, it implies that students continued with their socio-economic responsibilities while studying and this may help them to pay the expenditures for their higher learning.

**Programme of Study**

Table 3.1 shows the students' programme of study at OUT Manyara regional centre. The results reveal that the majorities (41.2%) were degree students and the results registered a small number of postgraduate students. The data indicates that teachers were 71.4% of all students and the majority of non-teachers- students were from the police army (15.4%) and other professions such as bankers, administrative officers and businessmen and women were 10.5%. The degree students were higher because the majority of Diploma teachers and foundation students pursued degree after their graduation.

**Table 3.1: Students' programme of the study**

| Programme of study | Frequency | Percent |
|---|---|---|
| Certificate | 68 | 37.4 |
| Diploma | 22 | 12.1 |
| Degree | 75 | 41.2 |
| Postgraduate student | 17 | 9.3 |
| Total | 182 | 100.0 |

Table 3.2 shows the occupation of the student. The data shows that only 1 respondent was studying without being involved with any economic activities while 96% of students were employed by the government or private institutions while 3% of the students were doing businesses or were self-employed. The implication of these data is that, majority of the OUT students have a high probability of financing their higher education; since they engage in income-generating activities while studying. Moreover, the study reveals that the age of the students ranged from 20 to 61 with a mean of 33.64, indicating that OUT admits students with diverse age ranges. The number of dependants also ranges from 0 to 19 with a mean of 4.6, indicating that students continued with studies while at the same time handled their dependents.

**Students with Accounts and Loans with Banks**

Students at Manyara centre opened their accounts in National Microfinance Bank, National Bank of Commerce and Cooperative and Rural Development Bank. The study found that 95% of the students were having bank accounts. It implies that they can use the financial services such as saving, loans and insurance offered by their respective commercial banks. Mosenda (2018) reported that the president of Tanzania The president of the United of Tanzania during the official inauguration of the Parastatal Social Pension Fund office and National Microfinance Bank office in Dodoma City in Tanzania stated that “only 4.7 million Tanzanians have bank accounts.” This study found that 45% of the students had loans with their commercial banks. The results indicate that more than half of the students did not have loans with banks. Therefore, they probably finance their higher education by other means such as personal savings and family or relative assistances. The study reveals that the collaterals that were used for loan application were employment (85%) and house (15%). The study further reveals that 44.5% of students had loans in SACCOS which ranged from TZS 100,000 to 5 million and the interest rate ranged from 2% to 3% per month. Moreover, the study finds that some students borrowed from VICOBA up to 6 Tshs million and the interest were 5% per annum.

The interest rate for various Microfinance institutions ranged from 4% to 48% per annum depending on the regulations of the respective financial institutions. The banking information shows that some students have joined the banks currently but there was also enough experience with the banks, where the maximum duration to stay with the bank was 30 years. The data indicates that there were students with enough experience with the bank and these could train their fellow students to use the banking services. The amount of the current loan of the students with a bank ranged from 500,000/= to 50,000,000. The data shows that there was a variation of the amount of the loan borrowed by the students based on their financial strengths and conditions sat by their banks. Frangos, Fragkos, Sotiropoulos, Manolopoulos and Valvi (2012) revealed that the most important determinants of loans taking from banks for Greek customers were marital status, customer service, shop design and interest rates. Elliott and Beverly (2011) found that students who had neither bank account nor saved money might face the challenge of not attending college education if they do not get loans to finance their education. Srinivasan and Das (2011) found that in India and postgraduate students were likely to get education loan from a bank than undergraduate students. Likewise, banks preferred giving loans to students admitted to government recognized institutions.

**Financial Services used by Students**

Table 3.3 presents the financial services used by the students. The results show that all students (100%) used mobile money services. The majority of students (93%) confirmed to send and receive money worth Tshs 5,000 -500,000 while 3% and 4% sent and received the amount of money between Tshs 600,000-1,000,000 and > Tshs 1,000,000 respectively. The data signifies that the majority of OUT students have relatively low income. The results also indicate that about 45%, 38%, and 22% used SACCOS, VICOBA and NGO MFIs financial services respectively. The study finds that the types of NGO MFIs used by students were Bangladesh Rural Advancement Committee (BRAC), Faidika and Foundation for International Community Assistance (FINCA). It should be noted that, in most circumstances, mobile money service was meant only for sending and receiving money, where a student did not have a chance to borrow while in SACCOS, VICOBA and NGO MFIs students had a chance to borrow some money.

The data shows that majority of students used SACCOS' services than VICOBA and NGOs MFIs. This was probably because SACCOS are semi-formal financial institutions that offer a relatively high amount of loan compared to VICOBA. Gichuh (2015) found that higher learning students from Kenya finance their education through their salaries or wages, higher education board loan, from families, relatives and friends and loans from bank, SACCOS and group organizations. However, the study found that financing higher education through the selling of farm and livestock products was sometimes unreliable because many farmers depended on rain-fed agriculture which was sometimes erratic. Also borrowing from commercial banks sometimes was not possible, because the commercial banks demanded the collateral; which most of the poor farmers did not have.

**Table 3.3: Financial services used by students**

| Financial service(s) | Frequency | Percent |
|---|---|---|
| Mobile money | 182 | 100 |
| SACCOS | 81 | 44.5 |
| VICOBA | 69 | 37.9 |
| NGO MFIs | 40 | 22.0 |

### Students' Recommendations to the Bank and the Financial Institutions

The students provided the following recommendations to the commercial banks and the financial institutions. To improve customer service and reliability of the service from Automatic Teller Machine (ATM). It means that the bank officers should make sure that the ATM accessible all the time, improve the accessibility of mobile money network, increase the loan repayment duration, training bank customers on the importance of saving money in the bank, opening more branch in rural areas, improve the communication procedures, reduce bureaucracy, the transaction charges, loan interest rate and time for loan processing and training customers on loan management and other banks services.

### Conclusion and Recommendations

The paper reveals that students at OUT Manyara regional centre finance their higher learning education using private based strategies such as commercial bank loans. The paper further finds that students also used various MFIs services from Savings and Credit Cooperative Societies (SACCOS), Non-Government Organization Microfinance Institutions (MFIs) and Village Community Banks (VICOBA). These also play a significant role in facilitating the financing of higher education for OUT students. This paper recommends that commercial banks and other MFIs devise ways to finance the higher learning institutions in Tanzania.

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# Barriers to Prison Education: A Tanzanian Perspective

Mohamed Salum Msoroka[1] Brian Findsen[2] & Jo Barnes[3]
Email: mohamed.msoroka@out.ac.tz[1;]

The Open University of Tanzania[1] University of Waikato[2] & University of Waikato[3]

## ABSTRACT

*This article discusses the barriers to prison education from a Tanzanian perspective. The paper addresses one major research question, "What are the barriers to prison education in the Tanzanian context?". This qualitative study employed multiple-case study design, which involved 51 participants, including 28 inmates, six (6) inmate-teachers, 14 prison officers from five prisons, two (2) representatives from the Institute of Adult Education and a District Adult Education Officer. The data were mainly collected through individual and focus group interviews. Focus Group Interviews were employed to collect information from some inmates who were available in groups. Data from the rest of the participants, including some inmates, were collected through Individual Interviews. Thematic analysis was used to process the data. The study found two main categories of barriers – the prison and imprisonment situation and dispositional – that inhibited participation in prison education. The findings suggest that most prisoners were affected by the barriers associated with "prison and imprisonment situation"; a few were affected by dispositional barriers. It is suggested here that Tanzania should do more to improve prisoners' access to education in tune with global tendencies to widen participation amid marginalised populations..*

***Key Words:*** ***Barriers to prison education, prison education, correctional education, participation in prison education, lifelong learning, adult education***

## INTRODUCTION

Scholars have different views regarding the causes of crimes and the role of prison education in helping to alleviate recidivism (Callan & Gardner, 2007; Pollock, 2014). However, many of them agree that the *socio-economic* factors make a significant contribution to criminal behavior. They argue that most criminal behaviours and the likelihood of reoffending are the result of socio-economic structures – low education, poor work skills, and poverty (Thornberry & Farnworth, 1982; Weatherburn, 2001; Webster & Kingston, 2014). These circumstances give people no hope for a better life; they feel that they have nothing to lose. Several studies have shown the link between imprisonment and these structural level factors. In the USA, for instance, Lochner and Moretti (2004) reported the link between low education, criminality, and incarceration. In Australia, out of 6,386 prisoners in the state of Victoria, only 246 attained secondary school education prior to their imprisonment (Victorian Ombudsman, 2015). Similarly, in the UK, about 50% of prisoners had low reading skills, 66% had low numeracy skills, and about 81% had low writing skills (Braggins & Talbot, 2003). Relatively similar findings were also reported in New Zealand (Edwards & Cunningham, 2016) and Finland (Koski, 2009). The Tanzanian situation is no different as it is reported that about 75% of prisoners in Dodoma region have minimal literacy skills (Sauwa, 2010; The United Republic of Tanzania, 2014).

Studies suggest that prison education can improve education and work skills among prisoners, and reduce reoffending rates (Bozick, Steele, Davis, & Turner, 2018; Callan & Gardner, 2007; Davis et al., 2014). Despite this sobering suggestion, and the fact that prison education is a subset of adult education, this field (prison education) is not extensively researched in Tanzania. Very few studies (Mboje, 2013; Msamada, 2013) have examined this topic, and none of them has researched the barriers to prison education. Therefore, this current study aims to address this research gap. One question this research project addressed is: *What are the barriers to prison education in the Tanzanian context?* This article discusses the barriers to prison education from participants' perspectives. It is hoped that this article will contribute to the wider discussion on the barriers to prison education and open up a new debate on the same issue in the Tanzanian context.

## Barriers to Adult Education

The focus of this article is on barriers to prison education. Because prison education is a subset of adult education, this article will first (briefly) discuss the general barriers to participation in adult education before embarking on barriers to prison education. Adult education scholars have grouped barriers to adult education in different ways. Johnstone (1963) is among the pioneers who studied barriers to adult education. He developed two clusters of barriers: *external/situational* barriers – that emerge from outside of the learner (e.g. family, social, and work responsibilities) – and *internal/dispositional* barriers – that grow from within the learners themselves (beliefs, values, attitudes, and perceptions about oneself and/or education e.g. a feeling of being too old to learn). Cross (1979) expanded on Johnston's work and proposed a third cluster, *institutional* barriers. The institutional barriers are caused (often inadvertently) by an organisation that offers learning opportunities. Examples are irrelevant content (curriculum), inappropriate marketing and poor timetabling. Darkenwald and Merriam (1982) established a fourth cluster, *informational* barriers (the lack of awareness on the part of learners about the available educational opportunities). Consequently, at the moment, these four typologies – situational, psychological/dispositional, institutional, and informational – have become the most cited typologies of barriers to adult learning (Findsen & Formosa, 2011; Findsen & McCullough, 2007; Merriam, Caffarella, & Baumgartner, 2007). Prison education is undertaken in a different context, namely prisons, which are regarded as "total institutions"[1]. It is noted here that in some cases, prisoners may face relatively similar barriers to those experienced by adult population outside of prisons and some different ones related to the specific prison context. This article extends the discussions regarding the barriers affecting adult education to prisoners – a special group of adult learners.

## Barriers to Prison Education

Scholars have suggested several barriers to prison education. For some developed countries, the quoted reasons for poor inmates' participation in prison education include the lack of proper information for programme opportunities, lack of appropriate programmes, and reduced funds for prison education (Crayton & Neusteter, 2008; Davis, Bozick, Steele, Saunders, & Miles, 2013; Erisman & Contardo, 2005). Also, some prisoners were not permitted to enrol because of disciplinary problems, and others because of the types of their sentences, such as life sentenced prisoners (Braggins & Talbot, 2003; Klein, Tolbert, Bugarin, Cataldi, & Tauschek, 2004). Some prison staff in

[1] Highly restricted organisations, isolated from the rest of the world, and operate with structured daily routines; see Goffman, E. (1962). *Asylums: Essays on the social situation of mental patients and other inmates*. Chicago: Aldine. Amundsen, D., Msoroka, M., & Findsen, B. (2017). "It's a case of access": The problematics of accessing research participants. *Waikato Journal of Education, 22*(4), 5-17. 10.15663/wje.v22i4.425

the USA have shown resentment toward prisoners being offered a chance at college education (Erisman & Contardo, 2005). This resentment was a problem because sometimes prison staff obstructed the learning process by locking up some prisoners when they needed to attend class. Sometimes, they confiscated inmates' textbooks, or interrupted classes (Erisman & Contardo, 2005; Thomas, 1995). In Africa, the situation is worse. Issues related to shortages of funds, poor infrastructure, and a lack of resources have severely affected adequate provision of prison education (Asiimwe & Kinengyere, 2011; Mokwena, 2008; Msoroka, 2018; Sarkin, 2008; Setoi, 2012). The following sections will discuss these barriers in relation to the Tanzanian context of prison education.

**The Context of Tanzanian Prisons**

Tanzania has a total of 33,517 prisoners (The United Republic of Tanzania, 2017c) incarcerated in 126 public prisons. These 126 prisons are grouped into Central/Maximum Security (12), District/Medium Security (68), and Agricultural/Open/Low Security prisons (46) (Inmate Rehabilitation and Welfare Services Tanzania, 2014; The United Republic of Tanzania, 2017b). It should be noted that these 126 (Tanzanian) prisons have the capacity of 29,552 prisoners (Mikongoti, Mlowe, & Wazambi, 2016; The United Republic of Tanzania, 2017c). Hence, the current number of incarcerated prisoners (33,517) indicates overcrowded prisons in Tanzania. This article holds that Tanzanian prisoners are not different from other prisoners around the world; most of them are illiterate and have little work skills (The United Republic of Tanzania, 2014). Despite the observation that prison education is a necessary programme for prisoners' rehabilitation, education is currently not an obligatory component for Tanzanian prisoners. The available policy document (Prison Education Guide) does not legally bind prisons to offer prison education (The United Republic of Tanzania, 2011). Consequently, only a few prisons offer educational options to some prisoners (Msamada, 2013; Msoroka, 2018). This suggests that, in Tanzania, participation in prison education is not easy; hence the current study explored this topic from the Tanzanian perspectives.

## Rehabilitation Theory

This section discusses the theoretical underpinning of this study. Considering the link between prison education and the reduction of recidivism, this research considered rehabilitation theory relevant to this study. Studies suggest that a reduction of recidivism rates in prisons depends on the availability of rehabilitation programmes within prison systems (The United Nations Office on Drugs and Crime, 2012). Campbell (2005) maintains that rehabilitation is “the process of helping a person to readapt to society or to restore someone to a former position or rank” (p. 831). It is assumed here that for being one of the rehabilitation programmes in prisons, prison education can reduce recidivism rates among prisoners (Klein et al., 2004; The United Nations Office on Drugs and Crime, 2012). Literature holds that in the prison context, “educational, vocational, and psychologically based programmes, as well as specialised services for specific problems, have typically been put forward as means to reform prisoners during their sentence (Campbell, 2005, p. 831). As has been observed, educational programmes in prisons such as vocational training, literacy education, and college education have been used to prepare offenders to reintegrate into the society (Campbell, 2005; Cullen & Gendreau, 2000). These programmes provide skills which can help prisoners to handle their after-release lives (Callan & Gardner, 2007; Davis et al., 2014) and consequently reduce reoffending behaviour among the prisoners (Workman, n.d.). For this reason, it is argued here that the provision of prison education is a significant enterprise. Hence, limiting the provision of educational programmes within prisons (as will be discussed in this article) restricts the government’s efforts towards reshaping prisoners’ behaviours.

## Methodology

This research aimed at developing an in-depth understanding of the barriers to prison education in Tanzania. Following Yin’s (2009) suggestion that researchers have to be cautious in case selection; this study selected five prisons which have different characteristics. Two of them were the Maximum Security prisons with some kind of educational programmes (One male’s and the other female’s). The other two were Low Security (males’) prisons (one with some kind of educational programmes while the other had no any educational programme); the fifth one was a youth prison. Arguably, it was more their differences in characteristics which influenced their inclusion in the rproject than their similarities (Stake, 2000). Participation in this study was voluntary. The participants included inmates (28), prison staff (14), inmate-teachers (6), representatives from the Institute of Adult Education (2), and a District Adult Education Officer. The purpose of selecting prisons and participants with different characteristics was to gain information related to barriers to prison education from different perspectives (Creswell, 2007; Yin, 2009). The ethics clearance for this project was granted from the Faculty of Education Ethics Committee, the University of Waikato (New Zealand), the Regional Commissioner Officers (Tanzania) where the relevant prisons were located, and at prison level.

The interpretivist paradigm was central to this study as we believe that the construction of meaning is subjective and multiple; people generate their version of reality while interacting with their environments (Collins, 2010; Mackenzie & Knipe, 2006; Snape & Spencer, 2003). The interpretivist paradigm involves researchers interpreting meaning from their participants' point of view. This view was key in interpreting the perceived barriers to prison education. Hence, the analysis of data has been based on the participants' perspectives. This study employed a qualitative approach (Creswell, 2007). Five prisons constituted the multiple cases for this project. Purposive sampling was mainly used to select the participants, except for ex-offenders who were located through a snowball approach (Patton, 1990; Tongco, 2007). With purposive sampling, teachers, prisoners, prison staff and other participants from outside of prisons (e.g. adult education officers), who were thought to have relevant information to this study, were selected (Cohen, Manion, & Morrison, 2007; Patton, 1990). While in the field, flexibility was key to effective data collection. For instance at times convenience sampling was used to select participants. This method allowed the selection of participants who were "easily accessible and willing to participate in a study" (Teddlie & Yu, 2007, p. 78). For tringulation purposes, both individual interviews and focus group interviews were used to gather information. Since the participants of this study were Tanzanians who were fluent in Kiswahili language, Kiswahili was used during the interviews to allow greater freedom of expression. Most data were collected in prisons where it was not possible to record the interviews. Hence, extensive notes were generated. During interviews, everything seemed to be important was noted; participants were stopped whenever clarification from interviwees was needed. A reflective journal (which was used to keep records of everyday's activities) was used to supplement the field notes. Voice recording was used to obtain participants' data outside of the prisons with their consent. Transcriptions were later generated from field notes and voice recording. When developing transcripts from field notes, the notes generated from different interview sessions were read separately. Whenever the gap was observed, researchers used a reflective journal to seek for more information. Then the transcripts were translated into understandable English, with careful attention given to making sure that the original meaning conveyed by the participants was kept. Themes and subthemes developed from this study were inductively generated through thematic analysis (McMillan & Schumacher, 1993).

Stories from transcripts were read several times, and information related to barriers to prison education was highlighted and noted on the paper margin. The sentences and phrases, which were thought relevant to this study (relevant texts), were intensively examined (Silverstein, 2003). Then, the emerging ideas were written on a separate sheet to form a list of topics (McMillan & Schumacher, 1993). With thorough examination (McMillan & Schumacher, 1993; Merriam, 1998), topics with similar perspectives were identified and marked with similar colours. Then, the topics that seemed to be similar were grouped together to form general themes which were labelled by names that captured the groups best (Auerbach & Silverstein, 2003; McMillan & Schumacher, 1993). Eventually, the study was left with two major themes (categories) – prison and imprisonment situation, and dispositional barriers. Under the first theme, the following eight sub-themes were generated: budget constraints, inadequate infrastructures, insufficient teaching and learning resources, irrelevant curricula, non-credentialed courses, lack of information among prison officers, discriminatory conditions set by prisons, and poor policy interpretation. The second theme had two sub-themes – perceived lack of interest, and truancy and dropout.

## Findings and Discussion

### Perceived barriers to Prison Education

This study found that the majority of prisoners did not have access to prison education. Out of 1298 (total) prisoners this study found in all five selected prisons, only 419 (32%) were attending prison education. This finding is similar to Wlodkowski's (2008) observation that *underrepresented groups* of adults such as prisoners have “underserved students, lacking the accessibility and support, financial as well as academic” (p. 25) to succeed in education. In the present study, several barriers to prison education were observed. Most of the issues raised would fit into some typologies – situational, dispositional, and institutional – discussed previously. However, because of the context of this project (prison), it was extremely difficult to draw a line of demarcation between the “situational barriers” and “institutional barriers”. It was considered that most factors that could be labelled “institutional” were influenced by the prison “situation”. For instance, a lack of relevant curriculum in most selected prisons was influenced by prisons being “total institutions”. Prisons had poor collaboration with other learning institutions (outside of prison system) which could help to provide relevant programmes. For this reason, this study clusters the factors that could be under “institutional” and those which could be under “situational” and calls this cluster “the prison and imprisonment situation”. Also, all issues related to “personal attitudes” were grouped within the “dispositional barriers”. In this study, the majority of the barriers that participants discussed were under the *prison and imprisonment situation*; fewer were recorded under the *dispositional barriers*. However, it is noted here that dispositional barriers, especially for the marginalised adults, are usually the most powerful, but heavily disguised (Darkenwald & Merriam, 1982). Hence, it is not surprising that dispositional barriers were not openly admitted to in this project. This could be associated with a methodological limitation.

### The Prison and Imprisonment Situation

The following is a discussion reflecting the barriers that were labelled under “prison and imprisonment situation”.

#### Budget constraints (shortage of funds)

The findings of this study suggest that prisons which offered education did so for free and hence prisoners were not required to pay for their learning. However, it was clear that prisons did not have budgets for prison education. The majority of participants complained about the lack of funds to support educational programmes. A prison staff member commented:

> *Our prison doesn't have a budget for prison education purpose. We can't afford to buy chalk, notebooks, pens, and textbooks. Sometimes, we are completely out of chalk to run our classes. (Yahaya; Prison staff; Interview)*
>
> *The main problem is how to get those resources. Our prison doesn't have a budget to buy notebooks, pens, chalk and books. (Shida; Prison staff; Interview)*
>
> *Our main challenge is financial constraints. We need funds to buy books and other teaching and learning materials, including tools for workshops. The problem is that the government usually sets funds for prisoners' meals and medication; it doesn't focus on prisoners' education. I think they forget that the prisoners need education for their rehabilitation, which is the main purpose of this prison. (Kapange; Prison staff; Interview)*

It is suggested here that the lack of budget for prison education programmes seems to reflect the Ministerial general budget – The Ministry of Home Affairs (The United Republic of Tanzania, 2017a). Although the Minister claimed to pay attention to prisoners' rehabilitation, no funds were allocated for prison education in the 2017/2018 budget. A lack of funds for prison education, as seen in this study, strongly suggests that the Tanzanian Government does not consider prison education a priority in their budgets. Hence, the situation may not support rehabilitation process among the prisoners.

**Inadequate Infrastructures**

Studies suggest that the learning environment has a significant influence on adults' involvement in education (Wlodkowski & Ginsberg, 1995). Knowles (1980) holds that adults may learn best in an environment that gives them a feeling of being valued. According to Knowles, a learning environment comprises physical and psychological factors. The physical factors are associated with the classroom set up. They include tables and chairs that bring physical comfort during the teaching and learning processes. From a psychological perspective, a positive environment is created by "mutual trust and respect, mutual helpfulness, freedom of expression, and acceptance of differences" (Knowles, Holton, & Swanson, 2005, p. 93). Considering that prison education is a subset of adult education, it could be argued that the learning environment in prison has significant impact in (de)motivating prisoners to participate in education. This can explain why the Prison Education Guide, a local policy document, recommends prisons set aside comfortable learning spaces for prisoners (The United Republic of Tanzania, 2011). However, this study found that teaching and learning environments in prisons were among the main challenges that negatively affected prison education. Out of five selected prisons (all names in this article are pseudonyms), only one (Kipera) had classrooms furnished with desks. One prison (Uluguru) did not have any learning spaces. The other three prisons (Kikuyu, Chinangali, and Lubungo) placed chalkboards on walls outside the prison cells and considered them as the learning spaces. In this situation, learners did not have chairs – some sat on plastic buckets and others on the ground. As the learning spaces were not roofed, teaching and learning could not take place when it rained or when it was too sunny/hot. This finding contradicts recommendations of the Prison Education Guide as seen in the above paragraph (The United Republic of Tanzania, 2011). It also contradicts the propositions of adult education scholars who advocate for a learning environment that provides physical comfort for adult learners (Knowles, 1980).

**Insufficient Teaching and Learning Resources**

This study found that the selected prisons faced a severe shortage of resources. Many prisoners complained of the lack of notebooks, pens, and textbooks. Many prisoners (learners) were taking notes on pieces of papers; they were not happy with that circumstance. Teachers complained about their learners having no notebooks and pens. They also complained about having no chalk to carry out teaching instruction. This shortage of resources forced the closure of two classes in one prison (Chinangali). One prison officer said:

> *As you can see, we don't have proper learning areas, and our learners don't have chairs and tables. Some sit on (plastic) buckets and others in the dust. We don't have sufficient exercise books, pens and chalks. As you have observed, some of our classes are closed due to a shortage of resources. (Yahaya; Prison staff; Interview)*

One inmate who left the study programme associated his dropout with shortage of resources. He said:

> *Learning was very challenging for me because I didn't have resources. I had no notebooks, no pens. This discouraged me, so I opted out. (Kassim; inmate; Interview)*
>
> *I once joined a class and attended the first, second and third levels. I now have an ability to read and write. However, my class is currently closed due*

*to deficit of resources such as notebooks, pens and chalks. That's what made me drop from studies. (Matengo; inmate; Interview)*

*I have never joined a class since I got into this prison. I know that I have no one to give me writing materials (notebooks and pens); how can I be able to study without writing materials? That discourages me to join any class completely. (Marry; inmate; Interview)*

Kassim's, Matengo's, and Marry's comments may be a reflection of several other prisoners who opted out from prison education programmes for resource reasons. It is argued that the shortage of teaching and learning resources have negatively impacted prison education programmes within the Tanzanian context. However, it is noted here that a shortage of resources is not only facing Tanzanian prisons but also other African countries as well. On this issue, Sarkin (2008) reported that:

*Resource scarcity is one of the most significant challenges facing African prisons today. On a continent with so many social needs, protection of prisoners is far from the top of many priority lists. (p. 32)*

Countries such as Uganda and Kenya have reported insufficient resources for prison education (Asiimwe & Kinengyere, 2011; Dhlamini & Heeralal, 2014; Kyalo, Muiwa, Matuta, & Rutere, 2014). It should be noted that in Africa, a deficit of resources and poor learning environments affect other adult education activities outside of prisons (Dhlamini & Heeralal, 2014). Therefore, it is not surprising for this study to find the selected prisons having a shortage of resources for educational activities.

**Irrelevant Curricula**

The literature suggests that a consideration of learners' needs is a key to the success of adult education programme (Gboku & Lekoko, 2007; Knowles et al., 2005). However, it seems that development of educational programmes in Tanzanian prisons took a different path; prisoners' needs and interests were not taken into consideration. This study suggests that the situation negatively affected prisoners' participation. One prisoner said:

*I'm not happy with classes that I attend here. I would like to have an opportunity to study a complete secondary education curriculum which I have never done before, but it isn't fully available here. (Edward; Inmate; FGI)*

Because the programmes failed to accommodate prisoners' needs and interests, this study found that some inmates were reluctant to join programmes. Some of them commented:

> *Here they don't teach a serious secondary education curriculum. Therefore, I don't see an appropriate education for me. Regarding vocational training, I would like to study cookery, but unfortunately, we don't have such training in this prison. (Siwema; Inmate; FGI)*
>
> *I have never attended any education programme at this prison. One of the reasons is that there is no programme of my interest here. I would like to learn electrical studies, which isn't available in this prison. (Matonya; Inmate; Interview)*

This suggests that Tanzanian prisons do not have relevant educational programmes to cater prisoners' needs. For this reason, it is suggested that the Tanzania Prisons Service (TPS) needs to collaborate with other institutions such as the Institute of Adult Education (IAE) to restructure the current prison education courses to better reflect prisoners' needs. This requires effective needs assessment. There is a high possibility that if inmates' learning needs were considered, the number of prisoners involved in prison educational programmes would have increased. One would argue that the irrelevant curricula, as seen in the current study, have possibly contributed to inmates' negative attitude towards prison education (Wlodkowski, 2008).

***Non-credentialed courses***

Some adult education literature suggests that the majority of adult learners can be motivated to learn for the sake of attaining formal qualifications (credentials) (Kim, Hagedorn, Williamson, & Chapman, 2004; Vermeersch & Vandenbroucke, 2009). In the prison education context, Braggins and Talbot (2003) made similar observations with respect to UK prisons. They found that some prisoners did not want to attend education programmes which did not award certificates; they said it was "a waste of time" (p. 35). The current study found that most educational programmes in the selected prisons were non-credentialed. This lack of credentialed courses discouraged many prisoners from participating in programmes. One prisoner said:

> *They don't provide certificates for the courses they offer. If I study, I would like to be awarded a certificate of graduation. (Matonya; inmate; Interview)*

A similar discouraging tone was also observed from prisoners who participated in programmes. One of them complained:

> *Having no certificate awards in these programmes discourages the majority of inmates from participating in education. At times, I also want to stop attending these classes because I prefer to sit for the National Exams and be awarded a certificate. (Simba; Inmate; FGI)*

This study suggests that several inmates would want to attend educational programmes which guarantee credentials. It is argued that the majority of prisoners would like to use qualifications they gain from prison education to seek jobs (provided by employers or through self-employment) and maybe to further their educational qualifications. One can speculate that post-release employment would be more readily attainable if prison education courses were accredited. Therefore, it is recommended that relevant credentialed courses for prisoners should be introduced in Tanzanian prisons. However, arguing this way does not mean that this study underplays the role of non-credit education/training; such programmes have value for other purposes.

***Lack of information among prison officers***

Regarding information, the findings of the present study differ from those in conventional adult education (Darkenwald & Merriam, 1982; Findsen & Formosa, 2011; Merriam et al., 2007) and other prison education studies (Brosens, Donder, Dury, & Verte, 2015; Crayton & Neusteter, 2008; Davis et al., 2013). The above studies discussed a lack of information regarding learning opportunities on the part of learners (prisoners). While this observation is also true in the Tanzanian prison context, the current study found a significant number of prison officers who were not aware of the opportunity to prison education that prisoners have been granted by the 2011 Prison Education Guide (The United Republic of Tanzania, 2011). Some prison officers said:

> *A guide for prison education? No, I have never seen or heard about such document. Therefore, I'm not sure if it exists or not. If it exists, I don't know its content. (Tumaini; Prison Officer; Interview)*
>
> *I'm aware of the existence of the said document. It was introduced a long time ago, during Nyerere's era, but many prison officers are not notified of that document. The document is shelved, and in most cases, it is not in practice. Take an example; you have mentioned about the need for prison*

> *education coordinator at regional and prison levels, but in practice, we don't have those people. (Tamimu; Prison Officer; Interview)*

Tamimu's comment suggests that he was misinformed about the *2011 Prison Education Guide* (The United Republic of Tanzania, 2011); he associated it with Nyerere (the first president of Tanzania), who was in power between 1961 and 1985 (over 30 years ago). Hence, it is argued here that it was the prison staff who did not have reliable information, suggesting a poor flow of information within the Tanzanian prison system. For this reason, one can assume that there was poor implementation of this policy as many staff were not aware of the document (Prison Education Guide) (Stonemeier, Trader, Kaloi, & Williams, 2016). Presumably, the majority of prisoners also were not aware of the learning possibilities in prisons, because the information was not passed on. At this point, it is fair to argue that the poor flow of information regarding the Prison Education Guide may be a result of the low importance attributed to the document, and to prison education itself.

**Discriminatory conditions set by Prisons**

The findings of the present study suggest that prisons have set conditions such as inmates' behaviour and sentence length which determine whether a prisoner can be involved in vocational training. Some participants commented:

> *We allow inmates to attend vocational training based on their interests and willingness. However, we control their number because we cannot allow everyone to join due to limited spaces that we have. Therefore, apart from inmates' interests and willingness, we also consider their sentence length and their behaviour before considering them for vocational training. That's what we do to control their number. (Yahaya; Prison Officer; Interview)*

> *Some other prisoners are not allowed to join the course due to bad behaviour. They [prison staff] have selected us based on our behaviours and sentence length. In our team, we are all serving more than five years. (Kobelo; Inmate; Interview)*

> *Others are short sentenced prisoners. Therefore, they are not given a chance to join our class as the trade requires a substantial amount of time to understand it well. (Kobelo; Inmate; Interview)*

> *For literacy class, it is the illiterate prisoner who decides whether to join class or not, but for metal works and mechanics the criteria is set by prison officials. I have never attended any class as I'm not illiterate and I have never been proposed by the concerned prison officers to join any vocational class. (Isihaka; Inmate; Interview)*

For this reason, one would argue that prison management assumes that attending vocational training is a privilege to prisoners; it is not their right (Quan-Baffour & Zawada, 2012; UN, 1948, 2016). Withholding prisoners from attending vocational training is, therefore, often a punishment for prisoners' inappropriate behaviour. This finding echoes observations from the USA (Klein et al., 2004) and the UK (Braggins & Talbot, 2003) where some prisoners were not allowed to join educational programmes because of misbehaviour. In this article, it is viewed that restricting prisoners' access to education because of misbehaviour is to ignore the fact that prisoners are in custody because of their misbehaviour within that society. Prison officers have a moral obligation to help prisoners change their behaviours (rehabilitation) through various programmes (Braggins & Talbot, 2005). Also, restricting inmates from educational programmes is to ignore the fact that prisoners are human beings (O'Connor, 2017) who are entitled to an education (The United Republic of Tanzania, 1998; UN, 1948).

***Poor policy interpretation***

As stated previously, the TPS has introduced a Prison Education Guide, which sets parameters for educational practices in prison. However, some participants' responses suggested poor interpretation of this policy document. Although the Prison Education Guide recommends all prisons conduct prison education programmes (The United Republic of Tanzania, 2011), the findings suggest that many prisons do not do this. participants said:

> *No, we don't have any educational programmes here. My friend, many prisons [in Tanzania] don't have educational programmes, but I know few prisons with some educational programmes. These prisons include Kipera, Iwambi, Kajiungeni, and Kilimanjaro. (Tumaini; Prison Officer; Interview)*
>
> *In this prison, we don't have any educational programmes. Daily, prisoners are assigned manual work as part of their sentence. It may be working in government buildings, on farms, or in a sisal factory. (Gwakisa; Prison Officer; Interview)*
>
> *I have never engaged in any educational activity since my arrival in this prison because there are no such programmes. But for sure, if there were any programmes, I would have been one of the students in those programmes. (Makingi; Inmate; FGI)*

The Prison Education Guide recommends that inmates should be allowed to take recognised examinations. It states, if possible, "during the National Examinations, the examinations may be brought into prisons. If not, the candidates [prisoners] may be escorted to the appropriate centre in civilian dress" (The United Republic of Tanzania, 2011, p. 2). Very few heads of prisons allowed prisoners to take recognised examinations. An exceptional example is Kipera prison where prisoners take their examinations at the nearby VETA College or Mlali Primary School. Some heads of prisons do not offer that opportunity; the remaining four prisons selected for this study did not offfer such opportunity to prisoners. Komba, one of the Institute of Adult Education officers stated:

> *As opposed to the Songea prisoner – who was allowed by the head of the prison to sit his National Examinations at a centre outside Songea prison – Iwambi's head refused to give them [prisoners who qualified to take National Examinations] permission. He said that he didn't have the mandate to allow prisoners to take their examinations outside of prison. He directed us to seek permission from the Commissioner General of Prison (CGP). (Komba; IAE; Interview)*

He further said:

> *We wrote a letter [to the Head Prison Office] to seek permission for inmates to sit the examinations outside the prison. Unfortunately, the TPS office never responded to our letter [despite the follow-up]. As a result, those inmates didn't sit those examinations. That discouraged the inmates to proceed with the programme, as well as others to join. (Komba; IAE; Interview)*

These findings indicate inconsistency in the alignment between Prison Education Guide and practices at prison level. Lack of educational programmes in many prisons and the failure to allow inmates to take up their National Examinations in the centre outside of prison, as seen at Iwambi, suggest the possibility that the TPS has failed to engage with the Prison Education Guide (Stonemeier et al., 2016). This is an indication that there is limited chance for Tanzanian inmates to attain rehabilitation.

**Dispositional Barriers to Prison Education**

As noted previously, in this study, issues related to dispositional barriers were few. Some participants provided stories related to lack of interest and truancy; the only sub-themes which could be labelled under this category.

## Perceived Lack of interest

This study found that many prisoners were not participating in prison education. Some responses suggested that perceived lack of interest on the part of prisoners contributed to their poor involvement in prison education. They said:

> *I'm close to one prisoner who doesn't have the ability to read and write. I have been trying to encourage her to join me in class, but she refuses. She always tells me that in her life, there is nothing that she dislikes more than schooling. She considers attending education as a waste of time. She thinks that education can't help her in any way based on her current age. She is in her 40s. (Chaurembo; Inmate; FGI)*

> *Some other prisoners just don't like to engage in educational activities. It becomes difficult to encourage those inmates to join classes. (Edward; Inmate; FGI)*

> *I have never joined a class. My main reason is that I'm not interested in studying. I just don't feel ready. (Peter; Inmate; Interview)*

This finding suggests that there are several prisoners in the selected prisons who had no interest in prison education. It can be argued that prisoners' negative attitude, values, and perceptions have contributed to their lack of interest, which resulted in poor involvement in prison education (Cross, 1979; Merriam et al., 2007). It is possible that this lack of interest among prisoners is linked to their previous negative schooling experiences (Findsen & Formosa, 2011; Moriarity, 2014; Wilson, 2007). With such an attitude, one can argue that the identified inmates have limited chances to gain rehabilitation.

### *Truancy and dropout*

In this study, truancy and dropout were mentioned among the problems that limited the effectiveness of prison education. As mentioned earlier, educational programmes in the selected prisons were vocational training, literacy education, general education, and primary education curriculum. However, complaints in truancy and dropout were only recorded in literacy and general education programmes. Some participants said:

> *As monthly reports show, there is a problem of truancy and dropouts among the learners. I will give you some of these reports so that you can verify this. (Kapinga; AEO; Interview)*

> *Some prisoners joined the programme and dropped out after some time. (Mkude; Inmate teacher; FGI)*

> *In this class, learners' attendance is good. However, sometimes some of them miss class. (Kidawa; Inmate teacher; Interview)*
>
> *I was eager to learn, but I faced the challenge of having no learning materials. At some point, I didn't have any notebook or pen. That discouraged me, and therefore, I opted out. (Kassim; Inmate; Interview)*

The monthly reports collected from the field backed up this finding related to non-credit programmes. Reports supplied by prison authorities showed discrepancies between registered learners and their attendance rates. Although in this case, Kassim's comment suggests that he had his own (probably strong) reasons to quit studies, it is still possible that dispositional factors contributed to his failure to persist, as his classmates did. Several other prisoners (his classmates) persisted in learning despite the lack of notebooks; they were taking notes on pieces of papers.

## Limitations

As mentioned earlier, this article is a reflection of the findings of a qualitative research project carried out in five Tanzanian prisons. The five selected prisons may not be a representative sample of 126 Tanzanian prisons. Hence, the findings discussed in this paper may not be relevant for generalisation. Readers can decide whether the findings discussed in this article are relevant to their contexts or not.

## Conclusions

This article addressed one major question: *What are the barriers to prison education in the Tanzanian context.* The barriers to prison education in this study have been grouped into "prison and imprisonment situation," and "dispositional barriers". However, in this study, most barriers to prison education are within the prison and imprisonment situation. Very few were labelled as dispositional, though they may have been latent and potentially under-reported by participants. It is suggested in this paper that prisons place little focus on prison education. The TPS has not worked hard enough to improve prisoners' access to education. consequently, a few prisoners had access to prison education. Nevertheless, it is noted here that this is not a new phenomenon in the African context. Most prisoners in the African countries are reported to have limited access to prison education due to a shortage of resources – human, physical, and fiscal (Asiimwe & Kinengyere, 2011; Dissel, 2008; Msoroka, 2018; Sarkin, 2008). There are two possible explanations of the little focus on prison education in the Tanzanian contexts. First: despite the pledge to focus on prisoners' rehabilitation, the TPS and the Tanzanian penal system in general still use a "conservative" philosophy to imprisonment (Kinemo, 2002; Nyoka, 2013). A conservative philosophy of imprisonment holds that prisoners deserve punishment because they rationally choose to commit crimes. Hence, "Prison life should be uncomfortable – even painful – so that rational people will be deterred from committing a crime. If a short prison term doesn't work, the next sentence should be longer" (Pollock, 2014, p. 9). It can be argued that the prison and imprisonment situational barriers to prison education were affected by this philosophy. Prison education is often seen by society as a soft option for criminals; it is not encouraged within a conservative philosophy. Perhaps this view is common in most prisons in the African context (Sarkin, 2008); it limits the possibility of prisoners' access to education.

However, studies suggest that conservative approaches to imprisonment have failed to address offending and reoffending (Cullen, Jonson, & Nagin, 2011). Therefore, it is recommended that the TPS needs to reassess its approaches and consider prison education as a high priority. It is suggested that the TPS adapt a more liberal philosophy to imprisonment, which supports prison education (Pollock, 2014). With a liberal philosophy towards imprisonment, the TPS may reduce the barriers to prison education, as seen in this study, and improve prisoners' access to education, which, arguably, can reduce reoffending rate among the Tanzanian inmates (Callan & Gardner, 2007). This is a relevant argument from rehabilitation theory, which guided this study. Second: Tanzanian prisons are "total institutions" (Amundsen et al., 2017; Msoroka, 2018). Total institutions are usually restricted and isolated organisations. They have minimal interactions with other organisations and people outside of the prison system (Goffman, 1962). Several prison and imprisonment barriers, including inadequate infrastructures, irrelevant curricula, and insufficient teaching and learning resources could be reduced if prisons collaborate with other institutions and stakeholders such as the Institute of Adult Education, the Open University of Tanzania, and NGOs. Being total institutions, prisons do not benefit from resources which could be offered by other organisations and individuals. It is suggested that prisons become much more open to inviting partnerships in rehabilitation programmes, especially in terms of providing prison education.

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# Implications and Lessons Learned from COVID-19 Crisis to Marketing field: Experience from Tanzania Universities' Students

Victoria Oscar Makuya
Email; velamakuya@yahoo.co.uk
The University of Dodoma

**ABSTRACT**

*This is a survey article sharing experiences from COVID-19 crisis in developing country like Tanzania. COVID-19 crisis in Tanzania was announced early this year. Since then the government and people of Tanzania have been trying on fighting the pandemic. Tanzania decided not to take the common way of lock downs like most countries in order to contain the spread of the disease. The government urged people to take precautions while continue working. One of the precautions was closing universities. Now this article is putting forward the implications and lessons learned from COVID-19 by marketing students after closure of the universities. Experience is drawn from 26 students using snowball sampling procedure where in- depth interviews were conducted to undergraduate and working part-time graduate students. The sample was taken from public and private universities and cross section research design was used. Content analysis was carried out. Collaborations and sharing digital learning experience before crisis universities and businesses were the summary findings. Thus there are lot to learn by universities, students and businesses as a result of the crisis.*

**Key words: COVID-19, Tanzania, marketing field, implications, lessons**

## INTRODUCTION

On Monday 16 March, 2020 the Tanzanian health ministry confirmed the country's first case of COVID-19 at the government-run Mt. Meru Hospital in the centre of Arusha (The citizen, 2020). It was 18th march 2020 when the announcement was made to close universities and colleges after Tanzania confirmed the first corona-virus case. "Most students of higher learning institutions are now on holiday, therefore they shouldn't go back to colleges until further notice and for those who are in examinations, they should stop with immediate effect, so that to avoid mass gathering" the Prime Minister (PM) Mr Kassim Majaliwa directed (Africa Press Office, 2020). The PM however, insisted that people should continue with their day-to-day activities as the government constantly assesses the situation and will be updating the public with accurate information frequently. These two situations (the universities closure and continuing of daily activities) might bring effect to both current marketing students and working graduate students. This is especially due to the fact that students have to return and remain in their homes and those working adjust their activities in their work place to accommodate the COVID-19 interruptions (Edwards, 2020).

As students are at their homes instead of finishing their semester at the University, the situation brought the following question what are the implications and lessons brought by university closure and continuing daily activities at the same time to our students both undergraduates and working graduates. That is, how COVID-19 interruptions have affected marketing learning and field? COVID-19 interruptions might have brought effect to all academic disciplines however the nature of marketing field which require high and updated technology, more interaction with customers and time saving discipline has made this study important. Marketing helps businesses to sell their products and services. That is, the bottom line of any business is to make money and marketing is an essential discipline to reach that end goal. Thus, without marketing many businesses or disciplines would not exist (Urbonavicius and Dikcius, 2008). From this then the following questions were deduced what is the COVID-19 response for marketing students and field? and what challenges do marketers overcome during COVID-19 crisis? Marketing students like any other college student have been affected by COVID-19 crisis academically. Considering their field marketing students are expected to respond differently and innovatively to COVID-19 pandemic to go hand in hand with maintaining contact with markets as the field require. Marketing profession is supposed to be change oriented (resilient with whatever situation found in the market) (Urbonavicius and Dikcius, 2008). The students also are expected to behave accordingly. Resilience in marketing field is of paramount importance to the students, businesses and universities (Tamrat and Tefera, 2020; Moorman, 2020). The study used undergraduate students who are in their final year of marketing studies and graduate students who are working in various industries to explore their perspectives on lessons and implications of COVID-19 crisis after closure of the universities. The closure of Universities has brought and necessitates a need for changes to the university education conduct.

According to Linney (2020) COVID-19 has created a new normal for the higher education sector, revolutionizing the online learning landscape, reshaping application processes, and refreshing crisis management strategies. In Tanzania, this statement might be partially the case. Universities are not accustomed to online system of learning. That is, digital system is still underutilised for providing education to college students. Therefore, the current study was carried out with an intention of uncovering in-depth details of students' experience and perspective on this subject.

*The onset of COVID-19 and its repercussion to marketing field*

Coronavirus Disease 2019 (COVID-19) is a respiratory disease caused by the SARS-CoV-2 virus (OSHA, 2020). Ever since the virus crossed the continent's borders, regular bilateral and multilateral consultations among African leaders have philosophically revolved around the need to rethink our multifaceted responses to COVID-19 and other future threats that have equal or greater potential for disruption (Africa centre for strategic studies, 2020). Measures have been taken by governments responding to the COVID-19 pandemic in African countries**.** Most of the measures are in some form of executive order or proclamation (public statement) which could not give time to digest or take any other adjustments as the pandemic spread quickly so necessitate quick response (Moulds, 2020). As could be predicted given how easily COVID-19 spreads in crowds, most of the measures heavily curb the freedom of movement and of peaceful assembly (ICNL, 2020). Depending on the severity of COVID-19's impact, these measures can affect all aspects of daily life, including travel, trade, tourism, food supplies, financial markets and education systems (African renewal, 2020). It is obvious that the pandemic is likely to hit some sectors the hardest. Firms and businesses which harbours graduates from universities in African cities are highly vulnerable to COVID-19 related effects, especially SMEs which account for 80% of employment in Africa (Edwards, 2020). In particular, the approximately 250 million Africans in informal urban employment will be at risk (African renewal, 2020). Not only businesses, education system is also likely to be affected by COVID-19 crisis. The COVID-19 pandemic has however brought challenges in education systems in Africa. Most countries around the continent have temporarily closed educational institutions in an attempt to contain the spread of the pandemic. According to UNESCO (2020) and Tom (2020) 1.5 billion learners worldwide (91% of the world's student population) and 9.8 million African students are unable to go to school or university, due to measures to stop the spread of COVID-19.

However, while universities are closed in many countries during the pandemic, for Tanzanian education and other African countries, learning isn't on hold: for some, it has moved on line (OECD, 2020a; Tamrat and Teferra, 2020). For example, Ali Hassan Mwinyi Elite school, Feza schools, Ubongo kids and other apps, radio and television learning programmes, some graduate programmes at University of Dodoma for Tanzania and Nairobi and Daystar universities online learning programmes in Kenya were established during the pandemic. To access digital learning, however, students need access to a home computer or digital device (like smart phones) and the technology skills. Yet, not all students have such access, and the devices may need to be shared among parents/guardians and siblings (OECD, 2020b). Thus, those from privileged backgrounds will find their way around closed college doors to alternative learning opportunities, supported by their parents/guardians and eager to learn. Those from low income backgrounds will remain shut out if the college shuts down especially those who are living in remote areas (OECD, 2020a). This crisis exposes the many inequities in the country's education systems, from the internet broadband and computers needed for online education up to the supportive environments needed to focus on learning. Also shown to be relevant is the value of empowering universities to design reactions tailored to address the complexities of their unique local contexts (OECD, 2020b). Given the importance of timeliness and building on existing institutions, such locally adaptive efforts are vital (ibid). Thus as a response and to reduce the impact of COVID-19 outbreak conditions on universities, businesses, workers, customers, and the public, it might be important for all employers to plan in advance for not only COVID-19 but also unexpected crisis like this (OSHA, 2020). The lessons, challenges and responses from COVID-19 crisis could guide responses to future similar crisis for universities, businesses, students and graduates to reduce impact to learning in Africa generally and Tanzania in particular.

## Methodology

### Qualitative Interviews and Analysis

Interviews conducted from 26 students from various universities in Tanzania who are studying marketing from Ruaha Catholic University (RUCU), The University of Dodoma, University of Dar es Salaam and St Augustine University. These Universities were selected basing on the availability of willing students who were mentioned by their fellow students during snowballing and the type of university (that is private and public). These interviews were carried out as a qualitative study that aimed to explore the students' views on implications and lessons learned from COVID-19 crisis so as to inform strategies to improve marketing education in Tanzania and thus marketing field. To be eligible for interview, undergraduate students had to be in their final year of study in marketing field. These were selected since they were about to finish studies (they were supposed to start final semester) and thus some have already planned for new jobs and start using marketing skills they acquired at the university and some have already applied for graduate studies. Graduate (part time) students had to be working in a small business firms during the COVID-19 crisis. Participants provided verbal consent before the interviews. Thus the sampling was purposive in nature. Due to the situation with COVID-19 crisis face-to-face interview was discouraged. Furthermore, in order to get information from students of various economical back ground, University information (such as where they live, telephone number, parent's/guardian economic activities) was sought to get addresses of few of them and telephone was the only means of communication (digital technology) available to all students. Snow ball sampling technique was used to get more students to participate. During the interviews questions based on 3 key themes namely lessons learned from COVID 19 in marketing field, response to COVID-19 crisis as a marketer and challenges brought by COVID-19 crisis to marketing field. Interviews were recorded in which most conversations lasted 20-30 minutes and audio-transcribed (converting speech into text). Then the students' narratives contents were analysed using Nvivo software coding their views and perspectives according to their experiences on the crisis.

**Interview Results and Discussion**

Before going to the lesson learned, Avery and Edelman (2020) while pointing to the importance of social demographic information, declared that it enhances the ability of the researcher to make informed conclusion and recommendation to various interested in the conducted research work. In order to achieve this, three demographic variables, namely; the age of respondents; education levels; and gender were identified. Due to the qualitative nature of the study the information was summarised as follows: 12 third year students in marketing degree programme, aged 22-26 years old among them 5 were females and 7 were males. As for the masters' students studying Business administration major in marketing and marketing degrees, there were 14 students with age ranging from 28-36 years old, among these 10 were males and 4 were females. As the data from the selected students suggest there are few females who are studying marketing and available to provide information for the study.

**The study had the following students with social demographic characteristics as follows;**

*Lessons learned*

The following findings were obtained from marketing students from the universities under study in Tanzania so as to get information to answer the questions above.

*Undergraduate marketing students' views on the lessons learned from COVID-19 crisis*

Tanzania universities just like developing countries ones, have not advanced in using digital technologies in their teaching methods. The use of chalks, board marker pens, black and white boards is common during face to face lectures (Kihoza, Zlotnikova, Bada and Kalegele, 2016). Online systems are used only in limited as the access of digital technologies to instructors is very minimal. One undergraduate student when asked about the use of digital system in local universities, these were his views

> *"Using digital system in local university teaching is possible due to advancement of technology in the country. People can access internet even if they are in remote villages. I believe that every student can access a smart phone if not his/hers but at least from his/her father or any relative. The problem will be when a student wants a direct face to face interaction from the instructor. A system or program could be established by recording lecturers and set time limit for the availability of the lecture".*

It has to be admitted that there are universities which are specialising in offering online education and those which offer face to face lectures. However, the world is not static. Today the country is facing a COVID-19 crisis brought by corona virus which is very contagious and so far has caused loss of many lives. The implication of this is that the country should be prepared all the time. Another undergraduate student suggested that

> *"Universities should prepare an early warning system for not only COVID-19 crisis but for other future crises as well".*

That is the students and Universities should be prepared all the time instead of waiting for crisis to appear and take actions. The student went further into suggesting that

> *"Community should change their perceptions about university degree programs especially marketing".*

To understand the meaning of this, the student commented further

> "*students and parents/guardians should understand that marketing is not just like any other discipline/field of study. If a student is enrolled should be prepared by being conversant with digital applications. That is should be able to access digital technology".*

That is, if marketing field in the country has to go further in terms of technology and be resilient to pandemic like COVID 19, it has to be in bondage with digital world. These findings also mean that only students who can afford digital technologies should be admitted to universities to study marketing. Or the government especially loan board should find a way to include digital technology in their student loans. And what if the student wasn't able to get a loan? The parent/guardian has to afford that otherwise the student has to find another profession in which it is not always the case. Another student has also his share to say on lessons learned from COVID-19 especially concerning the preparation of universities against future pandemics in the marketing field as follows

> *"Employers in all industries have seen the importance of going digital in their marketing works".*

That is to say universities should see the importance of utilising digital technology in marketing courses so as to increase flexibility during pandemics. Thus, concurring with this, Hultigren (2020) suggested that flexibility especially in acting on unprecedented situations so as to adjust quickly to new marketing tactics. Universities like any organization should be flexible especially when it comes to teaching methods. COVID-19 interruptions are supposed to be a big lesson to local universities.

> *"Some universities wanted to apply online teaching after the crisis unfortunately it seemed like they didn't prepare the students so they had to dismiss the idea".*

This was quoted from one student in one of the local University of Tanzania.

Working Graduate marketing students' views on the lessons learned from COVID-19 crisis

These students are studying at the universities while have been employed or have their own businesses to run. When asked about the lessons brought by COVID-19 crisis in marketing education, one-part time graduate student said the following concerning lesson learned

> *"The COVID 19 crisis interruptions has taught us to make sure universities design curriculum for marketing students which is appropriate for digital applications"*

However, digital application is used by most local universities in developing countries like Tanzania omitting distance learning institutions; but for other purposes than facilitating learning such as admissions of students, registration of students, announcements to the university websites and the most recent one, payment of fees (Muhammad et al., 2020). Kihoza, Zlotnikova, Bada and Kalegele (2016) explained that learning institutions in Tanzania are facing challenges in digitalising learning and that most of the challenges identified were associated to the lack of infrastructures, readiness to change and lack of competencies on pedagogical digital applications. Adding to the lessons learned another graduate student asserted that

> "*Each marketing students who is in the university should have online business skills.*

She went further into suggesting that digital access to students and universities be seen as utility like electricity. The student finished by commenting that "*online business skills using digital systems should be included in each marketing course offered by the university and every work field"*. This implies universities have to review their marketing programmes and make changes in their course contents. Another lesson brought by COVID-19 was offered by another graduate who said that

> *"Universities should collaborate with other universities which offer online programs to share experiences before any crisis"*

That is, it should be the norm for universities to corporate so as to offer quality education and helping each other during the time of crisis. World Economic Forum and Business Insider, (2020) suggested the following lessons learned from COVID-19 crisis namely: availability of a speedy and trusted systems, broadband access to the internet, digital health applications, flexible ethics and equity of which some of these have been suggested by the students in the study. Generally lessons learned from both undergraduate and graduate students in Tanzania were as follows: introducing digital technology in university teaching system, access to affordable internet in villages, universities to be prepared for crisis management, community to change their perceptions on marketing degree program, university to design marketing degree program which is applicable to digital technology, students should have online business skills before joining marketing degree programs as the course itself has some contents which relates to online business and as the previous studies suggested that marketing field require digital technological skills for it to be resilient to any unprecedented situation and last but not the least collaboration between universities which offer online programs and those which do not.

*Response of marketers during COVID-19 crisis in Tanzania*

Like other marketers in other countries, marketers in a developing country like Tanzania have designed ways to respond to COVID-19 crisis in their field. However, the response for marketers in Tanzania could be a little bit different from their colleagues in developed world due to lower advancement in technology use and contextual reasons.

*To undergraduate marketing students*

In reality most university students especially those who have parents/guardians who are well off economically, digital technology is not an issue to them. However, the problem is to the majority who cannot afford digital technologies their responses to COVID-19 are supposed to be different. When asked how she responds to COVID-19 crisis in respect to his studying profession, one undergraduate student said

> *"I normally read news concerning COVID-19. In our country people have been ordered to continue working, I am not working yet but I get a lot of news from various WhatsApp groups I joined when I was at the University"*

Another marketing student agreed with the later student by saying that

> *"I normally communicate with my fellow students using emails and WhatsApp concerning covid-19 and what should be done to continue studies while at our homes".*

But these responses are different with another student who said that

> *"I am responding to COVID-19 crisis by helping into family business".*

She thinks that this is the time for assisting family business chores. She continues that

> *"Our family lives in the village and is poor we are depending on my mothers' small business to survive. My father is a farmer once it is not raining he goes hunting for many days. So most of the time, he is not at home"*

As one can see a family like this responding to COVID-19 crisis using digital application is a nightmare. UNESCO (2011) reported basic characteristics of professional teachers in universities is: (1) ability to learn using digital technologies, (2) ability to solve complex real world problems using digital technologies and (3) ability to create new knowledge using digital technologies. If for example the university teachers/

instructors are able to do all that it will be meaningless if their students cannot access digital technology.

*To working graduate marketing students*

Graduate students were a bit different to their counter parts in responding to COVID-19 crisis. The response also depends on the size of the business the student is working

> *"As to the nature of my job (sales and marketing officer) since the business is still small, I do not interact much with people especially during the time like this of COVID-19 crisis. The only time I do interact with people is when I go to the bank however all the time I use masks, sanitizers and washing my hands with soap to prevent myself from corona virus".*

Another student who is working in a big company has to say this

> *"I and my fellow marketers in our organisation have agreed to cut costs. We have slashed this year budget for marketing activities as we expect depression in the economy and so sales of our products will decline".*

He continued further by saying that

> *"We have changed our promotion strategies and marketing tactics generally"*

In response to COVID-19 crisis, many consumer-facing businesses have announced layoffs and some have gone further into slashing workers' salaries (Hultgren, 2020). This evidenced from one of the local private institution which announced the possibility of deducting half of the workers' salaries since they are not fully working and most of the time had to stay at home. Many other organisations have closed their doors since the crisis was announced in the country and are conducting the now common work-from-home experiment. As graduate part time students, who work in these organisations obviously had to go with these changes by adjusting promotion strategies and tactics. Moorman (2020) agreeing with the findings above, asserted that, regardless of the changes businesses are facing, marketing teams should practice agility during the time of uncertainty. She continued that marketers are crowding into virtual "war rooms" to cope with the new challenges brought by COVID-19 crisis. These marketers are likely to be at the front lines of developing new business strategies and tactics in real time while simultaneously learning to work virtually for the first time.

Further another graduate said that

> *"We respond to COVID-19 crisis by continuing investing as people shy away from investing, our management see as a right time to invest, as prices have gone down. However, we are working very hard from home. We have formed alignment with the company marketing team and other companies' teams. It is like we have joined forces to work in time of battle".*

Avery and Edelman (2020) argued that instead of pulling back from advertising during the crisis, going dark, while fearing of offending or of being accused of taking advantage of an unfortunate situation for corporate gain in time off COVID-19 crisis, marketer should respond by educating the public on prevention and fighting against it, offer free or lower priced products, shift factories over from making consumer goods to products needed to fight the crisis and bring people together to help bridge the physical distance imposed by social distancing by facilitating community, offering empathy, and providing social support. Generally, businesses responded differently in handling their marketing activities during the COVID-19 crisis. To mention few identified responses by undergraduate and graduate students involved in the study; getting as much information as possible about COVID-19 from reading and communicate with fellow students, involving in family business, operating while keeping distance, reducing budget, changing promotion strategies and joining hands with other businesses in handling marketing activities.

*Challenges brought by COVID-19 to marketing field*

Most business marketers who rely on trade shows, conferences and in-person meetings to generate leads and engage with customers have been affected by COVID-19 crisis. With face-to-face events currently at a standstill while the world attempts to mitigate the COVID-19 crisis, marketers have been forced to reallocate funds to other aspects of the marketing plan to fill in the gaps (Chief marketer, 2020). This could be one of the many measures which are taken as explained by part time students above. Thus let us see the reason that makes marketers indulge themselves into these measures: *Undergraduate students*

Responding to what challenges COVID-19 has brought one student said

> *"I was hoping this time to be finishing my last semester at the university but now I am facing a major delay in my purpose. I wished to join graduate studies in the next semester. This is not possible anymore. I will have to change my plans since my sponsor is starting to reneged". The COVID-19 has brought financial challenges to my sponsor too"*.

The COVID-19 crisis has brought challenges to students who are depending on private sponsorship. Now students are wondering if they will be able to finish their studies. Bjorklund and Salvanes (2011) in time of crisis education policies are supposed to support family background especially financial capability. There some students who are sponsored privately which the sponsorship could expire with time. That is, the policies should be modified to consider students from all background during and after the crisis. However still there is a delay in starting new semester, hopefully eventually everything will fall into place and go back to normal.*"Delays in finding a job of my dreams after graduating studies".* This is another challenge that was said by another student as a challenge brought by COVID-19 crisis. The student went further by saying that

> *"I was anxious to start new life after finishing my studies by getting a job and start living on my own expenses. However, this expectation is being delayed by COVID-19 crisis". Now I am not sure what will happen as everyone is complaining about economic downturn even employers in different industries".*

This is the worry for not only students but also workers who have been laid off in the marketing field. However, Burgess and Sievertsen (2020) suggested that for new graduates and job seekers; country policies should support their entry to the labour market to avoid longer unemployment periods. This could be one of the solutions to the students upon finishing their studies to avoid further delay.

Another student said concerning COVID-19 challenges that

> *"Since I cannot access digital technology especially internet services, I cannot access COVID-19 news even other news transpiring in the world as I am in remote area where technology is not much advanced".*

This voice represents most students who went to live in remote areas with their parents/guardians or who cannot afford advanced digital technologies after university closure due to COVID-19 crisis. Testing the system of digital teaching in Denmark, Andersen and Nielsen (2019) look at the consequence of a major IT crash as a result of this, some children could not take the test. The authors find that participating in the test increased the score in a reading test two years later by 9% of a standard deviation, with similar effects in mathematics however these effects were largest for children from disadvantaged backgrounds. This implies that if universities have to apply digital system in teaching programs, preparation is very important otherwise students with low economic status will be disadvantaged. Burgess and Sievertsen (2020) reported that these educational interruptions may not just be a short-term issue, but can also have long-term consequences for the affected students and are likely to increase inequality not only to students but also to the general public. *Working Graduate students*

On responding to challenges brought by COVID-19 crisis, one part time student said that

> *"the big challenges we are facing is the impact of COVID-19 on sales meetings. Social distancing has caused people to avoid each other. We do not meet with our customers face to face as we used to. This has affected our sales"*

Another student volunteered that

> *"Working from home is different from working in office environment. At home especially for us women, there are things which make it no conducive for working. Remote working does not fit for everyone".*

Another student also added that

> *"Sometimes we have to go see our customers however securing time to meet with our customers is also a problem as they are in certain mood and it is not easy to convince them live their homes while they have been told to stay at home whenever necessary. It could have been better if our customers could be able to access digital technology. But the truth is, majority cannot afford them".*

Another student who has a big position in his business firm reported that

> *"Squeezing marketing budget has brought chaos in the field. We are not sure what is important to be done first especially with the small budget and customers' mood in time of COVID-19 crisis".*

He also added that

> *"We also face difficulties in coordinating decision makers. Marketers depend very much on decision makers in different environments from homes to other businesses who are our customers".*

When interviewed by Avery and Edelman (2020), Dr Nabbaro said "global COVID-19 crisis has drastically changed the way people are relating to each other and as a result changed consumers' relationships with and expectations of brands". Concurring with one of the student views, she continued saying "Consumers want to hear from brands but only when that communication is comforting and reassuring to them and provides specific information about what brands are doing to respond to the pandemic". Chief Marketer staff (2020) also reported that while the world attempts to mitigate the COVID-19 crisis, marketers have been forced to reallocate funds to other aspects of the marketing plan which are pertinent to social distancing so as to fill in the gaps.

**Summary of the Findings**

The paper conducted a study on the lessons learned from and implications of COVID-19 on marketing field for Tanzania universities experience. The study conducted using in-depth interviews with undergraduate students and working graduate students to get useful insights. It is therefore deduced that there are many lessons which can be learned from COVID-19 crisis. Therefore, there are lessons which are directed to students and other which are directed to universities. The following lessons were discovered which are directed to students; accessing digital technology should be a must and building skills on online business for students from universities the following are lessons to be learned; designing university marketing curricula that fit digital technologies, preparation for early warning systems for future crisis, creating collaborations with universities offering online education and change in perception of marketing university degree. Implications from COVID-19 were based on the response of the students and challenges brought by COVID-19 to the marketers. Thus the study also observed that there are implications directed to the students and others directed to businesses. Most mentioned responses to the crisis which are directed to students are updating oneself with COVID-19 information, helping in handling family business. Businesses were responding to the crisis by slashing budgets, forming alignments, changing marketing strategies and investments. Likewise, challenges brought by COVID-19 were also directed to students and businesses as well. Some challenges mentioned are delayed time in joining graduate studies, finding jobs and starting new life for students. Also impact is on sales meetings, remote work, securing face time with customers and difficulties in coordinating decision makers for businesses.

## Conclusion

These findings reflect how Tanzanian universities students and the institutions have dealt with COVID-19 pandemic albeit its implications and lessons learned to marketing field. For undergraduate students, it is their time to reflect how the choice of the university and field can have impact in their future life. For graduate students who are working in small businesses it is their opportunity to learn the reality they are going to face in time of crisis in their work places. Both groups of students have been in better position to recommend on the redesigning of teaching methods of marketing in universities especially after facing with the pandemic consequences. The study recommends to students, universities and businesses to apply the lessons from COVID-19 which were mentioned in this study. The study was limited to qualitative information and thus recommends future quantitative studies on the implications of COVID-19 to marketing field in any context not necessarily universities. The study is also limited to students thus future studies are needed to their teachers or instructors for that matter and university administrations so as to get their views on improving marketing field teaching in time of crises.

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# Parental Reading Support Activities and Children's Reading Achievement in Tanzania

Janeth Kigobe
Janeth.kigobe@out.ac.tz
&

Mary Ogondiek
The Open University of Tanzania,

**ABSTRACT**

*Parents' activities to support their children in reading and their children's reading skills was studied to 600 grade 2 children and their parents in Dar es Salaam, Tanzania. Parents completed a questionnaire on parental involvement activities, i.e. encouragement, reinforcement, modeling and instruction. Children's reading abilities were tested with a reading test measuring word decoding, reading fluency and reading comprehension. Raven's Colored Progressive Matrices test was used to control for children's IQ. Results showed that IQ was not related to children's word decoding and reading fluency, but there was an association between IQ and some aspects of children's reading comprehension. Although parents' level of education correlated significantly with children's reading, parents' reading was not related to children's reading. Hierarchical regression analyses revealed a statistically significant, but weak association between parental reading support activities with all three aspects of children's reading. The usefulness of an intervention to stimulate early literacy is discussed.*

***Keywords: Parent involvement activities, school-family partnership, primary school, reading***

## INTRODUCTION

Reading ability is an important indicator of school success and a predictor of children's future educational achievements. Tanzania, like other sub-Saharan countries, is facing several setbacks in early literacy development. A report of the UNESCO Institute of Statistics (2017) showed that Sub-Saharan Africa has the largest population of children and adolescents who have not achieved reasonable academic skills. The report stipulates that 202 million or almost 9 out of 10 kids between the age of about 6 and 14 cannot read proficiently at the end of primary or lower secondary school. Although more than two-thirds of the children are actually attending school and can be reached by their governments and communities, they are not adequately achieving academic skills, which may be attributed to the issue of education quality (UNESCO, 2017). In Tanzania, primary education is provided free to all school-aged children. Although the country is experiencing massive basic education expansion, many children are still facing problems with early reading development and the majority of children in Tanzania do not acquire literacy skills according to their age and grade level (Uwezo, 2012).

Kumburu (2012) stated that reading and writing difficulties are common learning problems to many school children in Tanzania, but they are not well understood and not much researched. While all the blame is put on the Government, teachers and the formal schooling environment, only a few studies (e.g. Kimaro & Machumu, 2015; Kumburu, 2011; Mpiluka, 2014; Ngorosho, 2010; Uwezo, 2010; 2011; 2012) have explored the home environment as the first informal learning setting of a child. Kumburu (2011) implemented a short-term literacy skills intervention for children at risk for reading and writing difficulties in Tanzania. In a randomized experiment it was found that poor literacy motivation and support in the home environment are among the factors which hinder a smooth literacy development of children in Tanzania. Ngorosho (2011) studied the role of the home environment in literacy skills of Kiswahili speaking primary school children in a rural area in Tanzania. The paper interviewed parents about the home environment and found that parents' education, occupation, housing circumstances and literacy facilities had a significant relationship with reading ability. Coleman *et al*. (1966) explained that the home environment and cultural influences are the major sources of inequality in educational opportunities among children in society. Though parents in Tanzania value education highly, their involvement is mostly confined to financial support (Tornblad & Widell, 2014). If Tanzania wants to overcome problems related to early literacy development, there is a great need to involve parents in children's literacy development. This can be done in several ways, such as introducing a specific policy to stress parental involvement, by assessing parents' awareness and motives, as well as the practices parents use to directly stimulate their children's reading skills. Topor, Keane, Shelton and Culkins (2010) underlined that it is very crucial to identify specific parenting practices, programs and mechanisms to stimulate parental involvement behaviors and increase children's academic performance.

The current study is conducted within a larger project aimed at enhancing parental involvement in children's reading development. A first study of this larger project concluded that parents have the desire to be involved in their children's education, and that this desire is stimulated by several factors. On the one hand, invitations from their child or their child's teacher to be involved, and psychological factors such as self-efficacy, knowledge and expectations are related to involvement at home, whereas on the other hand school/teacher/child invitations and perceived time and energy are related to involvement at school (Kigobe, Ghesquière, Ng'umbi, & Van Leeuwen, 2018). The goal of the present study is to go more deeply into the associations between activities used by parents to support their children in reading and their children's reading skills, to examine whether it would be useful to launch an intervention that focuses on parental commitment in child literacy.

## Parental Involvement and Literacy Development

Research literature has shown that in encouraging early literacy development in elementary school the role of families, family-school relations, and parental involvement cannot be underrated. Parents can play an important role in fostering children's early literacy and language development because home is where children first experience oral and written language (Bishop & de Jong, 2016). There is emerging empirical support for the hypothesis that parents, by introducing written language, teaching and showing positive beliefs about reading, have a vital role in the literacy development of their children (Baker & Scher, 2002; Berthelsen & Walker, 2008; Boukaz & Person, 2007; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Vellymalay, 2010; Walker, Wilkins, Dallaire, Sandler, & Hoover-Dempsey, 2005; Wright, 2009; Zedan, 2012). Several studies have revealed that early parent interventions boost children's reading development. For example, young children develop stronger early literacy and language skills when parents expose them to books at home, value their role in their children's reading development, monitor children's TV time, regularly engage their children in literacy and language activities at home, and communicate and cooperate with their children's teachers (Carroll, 2013; Fan & Chen, 2001; Gest, Freeman, Domitrovich, & Welsh, 2004; Sénéchal & LeFevre, 2002; Sénéchal & LeFevre, 2014; Simonds, 2012). Sénéchal and Lefevre (2002) conducted a 5-year longitudinal study on the role of parental involvement in the development of children's reading skills and found that children's exposure to books at home was related to the development of vocabulary and listening comprehension skills. Moreover, parental involvement in teaching children about reading and writing words was related to the development of early literacy skills. Flouri and Buchanan (2004) affirmed that parental involvement in a child's literacy practices is a more powerful force than other family background variables, such as social class, family size and level of parental education.

**Theoretical Framework**

The current study is guided by the Hoover-Dempsey and Sandler model of the parental involvement process (Hoover-Dempsey & Sandler, 1995, 1997, Hoover-Dempsey, Walker, & Sandler, 2005), which tackles three major questions: (a) why do (and don't) families become involved in educational activities; (b) what do families do when they are involved in educational activities, and (c) how does family involvement in children's education make a positive difference in student outcomes. Our study relates to the last question. The Hoover-Dempsey and Sandler model includes 'learning mechanisms' (which they explained as specific kinds of activities) used by parents during involvement activities, namely parental encouragement, modeling, reinforcement and instruction. Because these mechanisms refer to parental activities, we prefer to use the term ‘parental involvement activities’. Hoover-Dempsey (2010) defined these activities as follows: (a) parental encouragement is a parent’s explicit support for students and active engagement in activities related to school tasks and learning, (b) parental modeling is parent behavior linked to successful learning such as explicit modeling in the course of instructions, attitude towards reading and actual parents’ reading behavior (c) parental reinforcement includes a parent’s application of positive, individually and developmentally appropriate consequences for learning behaviors and efforts of their child, and (d) parental instruction is the engagement of a parent with their child by giving various forms of instruction such as teaching, tutoring, practicing or correcting at home.

**The Scope of the Study**

The present study examines the relationship between parental reading support activities and children’s reading skills in second grade of elementary school in a Tanzanian context. Researchers assessed the four parental involvement activities of the Hoover-Dempsey and Sandler model (reinforcement, modeling, encouragement and instruction), and three aspects of children’s reading achievement (word decoding, reading fluency and reading comprehension). We expect that using more of a certain parental reading support activity will contribute to better reading results (decoding, fluency, and/or comprehension). To control for possible confounding variables, researchers include an indicator of children’s IQ, parents’ educational level, and type of school (public versus private) in all regression models. Additionally, Investigation whether the effect of each of the four parental activities on reading was moderated by the level of education of the parents. Finally, researchers checked whether parents’ own reading fluency and reading comprehension have a complementary role in children’s reading outcome, by adding these variables to the regression models.

**Method Participants**

All participants selected for this study were residents of Dar es **S**alaam, chosen for its heterogeneous nature concerning socio-economic characteristics. The study included 600 grade 2 children and (one of) their parents. The children were attending 18 public (73.1% of the pupils) and 6 private primary schools (26.9% of the pupils) in 3 districts of Dar Es Salaam, Tanzania. In terms of gender, 50.7% of children were male and 49.2% were female. Most of the children were 6 to 8 years old (73.6%), whereas 26.1% was 9 to 11 years old, and 0.3% was 11 to 13 years old. The older age of some pupils was the result of repeating one or more classes or late school admission. Demographic characteristics of the parents are described by the variables gender, level of education, income and employment status. Most participants (68.2%) were mothers, 31.8% were fathers. Of the parents 13.1% was unemployed, 11.5% was labor worker, 45.7% retail trader, 5.1% driver, 9.0% teacher or nurse, 5.6% skilled craftsman, 7.1% farmer or herder, and 3.0% was public servant or government official. Parents' level of education was measured with three categories indicating lower education (66.4%), middle education (20%) and higher education (13.6%). Regarding income, 25.9% had a yearly income between $50 to $250, 23.4% had less than $50 per year, 18.1% $300 to $500 and 12.3% over $1200 per year, and for the rest of the sample, the income was not reported.

**Procedure**

Data collection was conducted as part of a larger (intervention) study about parental involvement and its impact on children's literacy development in primary schools in Dar es Salaam, with three measurement points (pre- and post-intervention, and follow-up). The current study used baseline data (May 2016) from both the intervention and the control group, except for parents' reading data, which were collected during the follow-up measurement wave (February 2018). The moment for this parental reading data-collection was chosen in order not to intimidate parents at their first meeting with the researchers. At the time of our baseline data collection, Dar es Salaam had a total number of 573 primary schools in three districts: Kinodoni (140 public and 111 private schools), Ilala (110 public and 63 private schools) and Temeke (112 public and 37 private schools). Twenty-four primary schools were randomly selected from a list of all schools. Seven trained researchers who were professional tutors from a teacher training college were responsible for the test administration of the children. Children sat for the reading test in the normal classroom setting. The test was voice reordered for the evaluation of students' oral reading, accuracy rate and identification of error patterns. The researchers also provided instructions to the children before administering the

Raven test. Involved schools in the study agreed to invite parents at schools for data collection purposes. Schools gave parents an official invitation through their children one month and one week before the meeting day. Parents were asked to sign a written informed consent and were tested individually in private rooms for less than 10 minutes. Parents completed a parent involvement (PI) questionnaire with the support of research assistants.

## Measures

### Parental involvement activities in children's reading.

We used 4 variables related to parental involvement activities used by Hoover-Dempsey, Sandler and Walker (2005) in the Parent Involvement Project (PIP). A pilot study was conducted to examine the validity of the measures' content in the Tanzanian context. We performed a back and forth translation to create a Swahili version of the survey, as Swahili is the official language in Tanzania. Parents rated all items on a 6-point Likert-type scale ranging from 1 (not at all true) to 6 (completely true).

#### *Parental encouragement*

Parental encouragement refers to parents' explicit behaviors that support students' active engagement in activities related to school tasks and learning (Hoover-Dempsey, 2010). This variable was assessed with 13 items describing parents' use of encouragement behavior (Hoover-Dempsey et al., 2005). Item examples are: (a) "We encourage this child when he or she doesn't feel like doing schoolwork", (b) "We encourage this child when he or she has trouble organizing schoolwork". Higher scores indicated that parents report using more encouragement behaviors. The Cronbach's alpha reliability coefficient for this scale was .90.

#### *Parental modeling*

Hoover-Dempsey and Sandler purport that when parents are involved they are modeling positive school-related behaviors and attitudes to children (Sheridan & Kim, 2015). Ten items described parent's use of modeling behaviors (Hoover-Dempsey et al., 2005). Item examples are: (a) "We show this child that we like to learn new things", (b) "We show this child that we want to learn as much as possible". Higher scores indicated that parents report using more modeling behaviors. The Cronbach's alpha reliability coefficient for this scale was .92.

### *Parental reinforcement*

Parental reinforcement influences a child's behaviors by creating occasions for parents to provide their child with attention or rewards for school-related behavior (Sheridan & Kim, 2015). Parent's use of reinforcement behaviors was described with 13 items (Hoover-Dempsey et al., 2005). Item examples are: (a) "We show this child we like it when she or he ask teacher for help", (b) "We show this child we like it when she or he works hard on homework". Higher scores indicated that parents report using more reinforcement behaviors. The Cronbach's alpha reliability coefficient for this scale was .95

### *Parental instruction*

Through direct instructions parents get opportunities to influence their children's learning through the direct involvement behaviors such as teaching, tutoring, practicing or correcting (Hoover-Dempsey & Sandler, 2005). This variable was assessed with 15 items describing parent's use of instructional behaviors (Hoover-Dempsey et al., 2005). Item examples are: (a) "We teach this child to follow teachers' directions (b) "We teach this child to have good attitude about his or her homework". Higher scores indicated that parents report using more instructional behaviors. The Cronbach's alpha reliability coefficient for this scale was .95

## Reading skills in children and parents

### *Reading skills in children*

To test reading skills, the study adopted a part of Uwezo's reading assessment tool for children, see http://www.uwezo.net/assessment/. Uwezo is a non-profit organization ("Twaweza") that aims to improve competencies in literacy and numeracy among children aged 6-16 years old in three countries of East Africa (Kenya, Tanzania and Uganda). The adopted part of the assessment tool consisted of two sets of the reading test with four sections each. The sections consist of letters, words, paragraph and story reading. The sections with story reading contained two comprehension questions related to the story. The intention was to measure three major reading skills, which are word decoding, reading fluency and reading comprehension. Scores on the test are based on the amount of words a child could read in a given time, the number of errors children made, and the number of questions children were able to answer correctly after reading two stories. We checked correlations between the 10 components of the two sets of the reading test to see how the two sets are related. Findings showed that the two tests were highly correlated (see Table 1), as a result of which combined the two sets to get three reading skills scores which are word decoding, comprehension and fluency. A higher score indicates a better performance on the test.

### ***Reading skills in parents***

To measure parents' reading skills we adopted the '2015 national primary education leaving examination'. We used two sections which included two passages measuring reading fluency and comprehension. A first passage contained 175 words whereby parents had to read aloud for 3 minutes and answer 10 questions related to a passage. A second passage contained 79 words whereby parents had to read aloud for 1 minute and answer 6 questions related to the passage. Parents responded the questions by ticking (√) the box for the most correct answer among the alternative answers provided below each question. A total score for both reading fluency and comprehension was calculated, with a higher score indicating a better performance on the test. This test was administered in February 2018 at follow-up measurement, and data was obtained from 66.23% of the parents.

### **Intelligence in children**

In psychological research and educational settings Raven's progressive matrices (Raven, Raven, & Court, 1996) are widely used as a measure of intelligence. Raven's progressive matrices, is a non-verbal test, suitable for all children, adolescents and adults regardless of culture and educational level (Burke, 1958; Raven, Raven, & Court, 1996; Schweizer, Goldhammer, Rauch, & Moosbrugger, 2007; Pueyo, Junqué, Vendrell, Narberhaus, & Segarra, 2008). Raven's colored progressive matrices test is shorter (36 items) and simpler than other forms of Raven's progressive matrices and can also be used for children with physical and intellectual disabilities (Giovagnol, 2001; Pueyo et al., 2008). Given the age of our participants and the cultural context, this study used Raven's colored progressive matrices to control for IQ in the analyses.

**Statistical Analysis**

The study employed SPSS Statistics software 24.0 to conduct statistical analyses. We calculated means and standard deviations of all variables (see Table 1). We checked the linear relationship between the variables and the control variables (child IQ, type of school (0 = public, 1 = private), parent's level of education, parent's reading fluency and reading comprehension). Because some of the variables seemed to be not normally distributed, both non-parametric Spearman and parametric Pearson correlations were computed and compared, but results were not different. To test the contribution of parent activities to children's reading tests, we performed hierarchical multiple regression analyses (HMRA). We checked assumptions of normality, homoscedasticity, and multicollinearity. Because child word decoding, parental modeling and parental reading fluency were negatively skewed, a Log transformation (log(Xi)) was performed, and analyses were also run with these transformed variables. However, this did not show different results; therefore, we report the results with non-transformed variables.

The correlations among pairs of parent activities variables were large (> .50). To avoid multicollinearity, we decided to run hierarchical multiple regression analyses (HMRA) with each of the four parent activities (encouragement, reinforcement, instruction and modeling) separately as independent variables and the three reading test variables (word decoding, comprehension and fluency) as dependent variables (12 HMRA's in total). Control variables school type (0 = public, 1 = private) and parents' level of education were entered in the first block, the IQ score of the child was entered in the second block and one parental strategy was entered in the third block.We also ran a principal component analysis (PCA) on the four parenting activities variables to see whether it would be useful to extract a common factor, representing parenting involvement in children's reading in general. The PCA showed that one component explained 71.67% of the variance. Therefore, we additionally conducted three HMRA for the three dependent variables with the common, extracted component score for the four activities. To test whether parental education level was a moderator Andrew Hayes' Process macro version 3.0 (Hayes, 2013) was used. The interaction between parental education level and each of the four parental activities was entered in the HMRA to examine whether this interaction explained additional variance in the three child reading variables. Finally, we checked whether parents' reading fluency and parents' reading comprehension predicted children's reading outcome, by adding these variables to the regression model in a final block (in the regression models without moderator). Because of the listwise deletion of missing values, the number of participants in these analyses is smaller.

## Results

### Prevalence of Parent Activities

Table 1 shows that parents reported to apply the four parenting activities frequently. They seemed to use slightly more encouragement and modeling activities than reinforcement and instruction activities.

### Parental Activities Related to Word Decoding

#### Control variables

Of the two control measures type of school and parent's level of education entered in Step 1 ($F$ (2, 527) = 18.20, $p < .001$, 6.1% explained variance), parental education was significantly related to child word decoding ($\beta = .25$, $p < .001$). In Step 2, IQ did not explain an additional proportion of the variance in child word decoding with $F_{change}(1, 526) = 0.05$, $p > .05$. *HMRA with parent activities separately.* Among the four HMRA only instruction explained an additional proportion (1%) of the variance in word decoding, $F_{change}(1, 525) = 5.20$, $p < .05$, showing that more parental instruction ($\beta = .10$, $p < .05$), was significantly related to better child's word decoding skills.

#### HMRA with a common factor for the four parent activities

The common factor for the four parenting activities did not significantly explain additional variance in child word decoding $F_{change}(1, 525) = 1.82$, $p > .05$.

#### HMRA with parental education as a moderator

The interaction effects of parental education and one of the four parent activities did not account for the variance in child word decoding. There was no extra explained variance ($R^2_{change} = 0\%$) by adding the interaction term with education: encouragement by education, $F_{change}(1, 525) = 0.02$, $p > .05$; modeling by education, $F_{change}(1, 525) = 0.08$, $p > .05$; reinforcement by education, $F_{change}(1, 524) = 0.95$, $p > .05$; instruction by education, $F_{change}(1, 524) = 0.22$, $p > .05$ and the common activities component by education, $F_{change}(1, 524) = 0.07$, $p > .05$.

### HMRA with parental reading variables entered in the final block

There was no extra explained variance ($R^2_{change} = 0\%$) by adding the two parental reading variables: for the model with encouragement, $F_{change}$ (2, 355) = 0.07, $p > .05$; with modeling, $F_{change}$ (2, 355) = 0.08, $p > .05$; with reinforcement, $F_{change}$ (2, 355) = 0.05, $p > .05$; with instruction, $F_{change}$ (2, 355) = 0.04, $p > .05$ and with the common activities component, $F_{change}$ (2, 355) = 0.04, $p > .05$.

### Parent Activities related to Children's Reading Fluency

### Control variables

The two control measures type of school and parents' level of education accounted for a significant proportion (15%) of the variance in reading fluency, $F$ (2, 517) = 46.63, $p < .001$. Only parental education was significantly associated with reading fluency ($\beta = .40$, $p = .001$), indicating that a higher educational level of the parents is associated with more reading fluency. In Step 2, children's IQ did not add a significant proportion of variance in reading fluency, $F_{change}$ (1, 516) = 1.64, $p > .05$. In the final models only one control variable, parental education level, remained significant after adding parental involvement activities (see Table 3).

### HMRA with parent activities separately

Among the four HMRA only the two variables encouragement and instruction explained some proportion of the variance in reading fluency. In the model with parental encouragement an additional 1% of the variance was explained in the third step, with $F_{change}$ (1, 516) = 4.37, $p < .05$. In the model with parental instruction an additional 1% of the variance was explained in the third step, with $F_{change}$ (1, 515) = 3.72, $p = .05$. Regression coefficients indicated that parental instruction ($\beta = .08$, $p = .05$) and encouragement ($\beta = .09$, $p < .05$) were positively associated with reading fluency.

### HMRA with a common factor for the four parent activities

Adding the common component for the four parenting activities explained 1% extra variance, with $F_{change}$ (1, 515) = 3.92, $p < .05$, and a positive regression coefficient ($\beta = .08$, $p < .05$).

**HMRA with parental education as a moderator**

Parental education did not significantly moderate the association between one of the four parent activities and child reading fluency. There was no extra explained variance ($R^2_{change} = 0\%$) by adding the interaction terms: encouragement by education, $F_{change}$ (1, 515) = 0.06, $p > .05$; modeling by education, $F_{change}$ (1, 515) = 0.26, $p > .05$; reinforcement by education $F_{change}$ (1, 514) = 1.30, $p > .05$; instruction by education, $F_{change}$ (1, 514) = 0.76, $p > .05$, and activities component by education, $F_{change}$ (1, 514) = 0.07, $p > .05$.

**HMRA with parental reading variables entered in the final block**

There was no extra explained variance ($R^2_{change} = 0\%$) by adding the two parental reading variables in the final block: for the model with encouragement, $F_{change}$ (2, 344) = 0.70, $p > .05$; with modeling, $F_{change}$ (2, 344) = 0.83, $p > .05$; with reinforcement, $F_{change}$ (2, 344) = 0.93, $p > .05$; with instruction, $F_{change}$ (2, 344) = 0.91, $p > .05$ and with the common activities component, $F_{change}$ (2, 344) = 0.90, $p > .05$.

**Parental Activities Related to Reading Comprehension**

**Control variables**

In the model with parental encouragement the two control variables type of school and parent's level of education entered in Step 1 accounted for 1.3% of the variance in reading comprehension, $F$ (2, 542) = 4.71, $p < .01$. In Step 2, IQ did not significantly explain extra variance in reading comprehension, $F_{change}$ (1, 541) = 0.71, $p > .05$.

**HMRA with parent activities separately**

Parental reinforcement explained an additional proportion of the variance in reading comprehension (1%), with $F$ (1, 540) = 4.12, $p < .05$. Also instruction explained additional variance (1%), with $F$ (1, 540) = 4.12, $p < .05$.

**HMRA with a common factor for the four parent activities**

The common component for the four parenting activities did not explain additional variance with $F_{change}$ (1, 540) = 4.26, $p < .05$.

**HMRA with parental education as a moderator**

Parental education was not a significant moderator in the association between one of the four parent activities and child reading fluency. There was no extra explained variance ($R^2_{change} =$ 0%) by adding the interaction term: encouragement by education, $F_{change}$ (1, 540) = 1.56, $p > .05$; modeling by education, $F_{change}$ (1, 540) = 0.12, $p > .05$; reinforcement by education, $F_{change}$ (1, 539) = 0.00, $p > .05$; instruction by education, $F_{change}$ (1, 539) = 0.18, $p > .05$ and the common activities component by education, $F_{change}$ (1, 539) = 0.06, $p > .05$.

**HMRA with parental reading variables entered in the final block**

There was no extra explained variance ($R^2_{change} =$ 0%) by adding the two parental reading variables in the final block: for the model with encouragement, $F_{change}$ (2, 362) = 0.53, $p > .05$; with modeling, $F_{change}$ (2, 362) = 0.54, $p > .05$; with reinforcement, $F_{change}$ (2, 362) = 0.31, $p > .05$; with instruction, $F_{change}$ (2, 362) = 0.40, $p > .05$ and with the common activities component, $F_{change}$ (2, 362) = 0.43, $p > .05$.

**Discussion**

The present study assessed the contribution of four parental involvement activities (encouragement, modeling, reinforcement, and instruction) to three child reading skills (decoding, fluency and comprehension). Of the possible confounding variables, only the educational level of the parents was associated with child reading, but only modestly (15% explained variance in reading fluency, 6% in word decoding and 1% in comprehension). Whether the child goes to a private or a public school, or the score on the IQ test was not significantly related to the reading subtests, neither did the parents' reading test scores.

Concerning the parental involvement activities, results of the study suggested that parental instruction was consistently associated with all reading outcomes of the children, parental encouragement was only associated with children's reading fluency, and reinforcement was only associated with reading comprehension. Adding these parental involvement activities explained only an additional 1% of the variance, indicating that associations were very weak. Moreover, if a Bonferroni correction is applied, none of the parenting strategies remains significantly associated with child reading outcomes. Parental modeling was not significantly related to the child reading outcomes. The association between parental instructions and children's reading skills is in line with other studies (Sénéchal & LeFevre, 2014; Sénéchal et al., 1998; Sénéchal, 2006; Teale, 1986). Home instruction about reading proves to be very effective as shown in the experimental study of Morrow and Young (1997).

They found that children who received both home and school-based reading instruction outperformed children of the control group who received only school-based instructions. Sénéchal et al. (1998) found that direct instructions of written-language skills by parents contribute largely to child literacy development particularly to the acquisition of literacy skills of children who cannot yet read. Sénéchal and LeFevre (2014) affirmed that parents' direct teaching about reading had more effect on children's reading than other informal involvement activities of parents such as shared book reading. This was also recognized by Teale (1986) who confirmed that parents' direct teaching was more effective than parents' engagement in storybook reading. Sénéchal (2006) found that parents' teaching contributed 6% unique variance to children's alphabetic knowledge and was related to phoneme awareness while other variables such as story book exposure did not account for any unique variance. He confirmed that parents' teaching of children about literacy in kindergarten directly predicted kindergarten alphabetic knowledge and Grade 4 reading fluency. This means that parents' direct teaching not only helped emergent readers to develop decoding skills but also led to successful development of reading fluency in later years. Sénéchal and LeFevre (2002) affirmed that frequency of parents' teaching is directly related to children's early literacy. We extended previous findings by showing that parents' direct teaching activities relate to children's decoding and reading fluency beyond parents' educational level and parents' reading skills. In this study, parental encouragement was weakly associated with children's reading fluency. Sanders (1998) found a relationship between students' perceptions of parental encouragement of academic efforts and children's academic self-concept. Martinez-Pons (1996) affirmed that, when children face difficulties in self-regulation to engage in school activities, a child who is encouraged to persist to do so will be more likely to succeed in engaging in school work than a child who is not. This implies that parental engagement in explicit supportive behavior through the encouragement of the student's interest in reading activities increases children's reading motivation. It seems that the more a parent encourages a child to read and to engage in reading activities the higher the possibility for a child to become a fluent reader. Parental reinforcement was related to children's reading comprehension. Parental reinforcement in reading activities through various home activities such as story books exposure and family reading time can directly or indirectly stimulate the child's reading comprehension. Sénéchal (2006) did a study on how parental involvement in kindergarten is related to grade 4 reading comprehension, fluency, spelling, and reading for pleasure and found that story book exposure predicted grade 4 reading comprehension indirectly.

Children might require more exposure to literacy materials at home, as strong base for decoding, vocabulary and reading fluency (which all requires parental support) to boost their reading comprehension development. With regard to reading comprehension, we found a relationship between children's IQ and some aspects of reading comprehension but IQ did not explain variance in reading comprehension in a hierarchical regression model. Tiu, Thompson and Lewis (2003) found that IQ accounted for a significant amount of variance in children's processing speed, which is a very important aspect in reading comprehension. On the other hand, Share, McGee and Silva (1989) stressed that IQ does not set limits to reading progress even in extreme low IQ children. Parental educational level remained significant even after adding parental involvement activities and parent's reading skills in all hierarchical regression models. Parents' educational level seems to be the most important parental factor related to children's reading development in this study. However, it did not moderate the association between parental involvement activities and child reading skills, meaning that depending on the educational level, we did not find different associations. Chiu and Ko (2008) pointed out that maternal education plays an essential role in children's reading. Though Van Bergen et al. (2016) stressed that home literacy is more proximal to children's reading than parental education; parents' own literacy skills were not associated with children's reading skills in this study. Shonkoff and Phillips (2000) found that the level of parental education is not only strongly associated with the home literacy environment but also with parents' teaching styles and use of resources, child care and educational materials such as a parental direct teaching of alphabets, book sharing and library visits.

## Conclusion and Implications

The current study opens a way for more investigation on the effective and feasible parental reading support activities which can be used to encourage parental involvement in the literacy development of children in Tanzania. Though parental educational level was associated with all three children's reading skills, parents' own reading ability didn't correlate with any children's reading skill. This suggests that although parental reading ability is important, it cannot be a deciding indicative measure of parental involvement at home and it would be wrong to assume that illiterate parents are not able to help their children at home and support their reading development. Leichter (1984) stipulated that children may learn and become readers on their own without formal instruction, but through experiences with literacy together with their parents. More specifically, the emotional reactions of the parents can affect the child's progress significantly. Researchers need to find feasible ways and practices that can be useful to all parents regardless of their reading status.

Parents might not be able to read but if they are well supported, they can encourage and reinforce their children to see the importance of reading and education. Children with literate parents might have more advantages by receiving literacy support at home than children of illiterate parents. This does not mean that illiterate parents are not willing to help their children: a strong desire to help can exert a positive influence for their children to become literate. It should be noted that not all activities are feasible and effective to every parent and child. If we want children to have a smooth reading development, policy makers, schools and teachers need to motivate parents to take part in their children's reading progress by providing them with feasible tools and reliable practices such as teacher-parent meetings, home visits as well as a specific parent training which focuses on informing parents about the importance of reading. We need to think of specific practices that can easily facilitate students' intrinsic and extrinsic motivation for reading and bring better reading successes to children. For example, schools can buy reading materials for children for use at home, teachers can use simple and motivating practices such as resource sharing by lending story books to children for home use and the use of wordless picture books at home. Parents can be instructed to ask their children about their daily routines at school and new words they learnt at school, tell stories to their children, and children can read aloud for parents.

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# Role of Research on Effective Teaching And Learning in ODL Institutions: The Case Study of The Open University of Tanzania

Joseph Magali

The Open University of Tanzania

Email: joseph.magali@out.ac.tz

## ABSTRACT

*This study analyzed the role of research on effective teaching and learning in the open and distance learning (ODL) institutions specifically at the Open University of Tanzania. The paper examined the key variables to be considered for ODL research at the Open University of Tanzania. The study reveals that the studies done to assess the role of research at OUT are inadequate and lack coverage in ODL variables and methodology. The study recommends that more studies should be conducted to assess the perception of instructors and students on the ODL mode of teaching and learning at OUT and other higher learning ODL institutions.*

***Keywords: Role of Research, Effective teaching and learning, Open University of Tanzania***

## INTRODUCTION

Mnjagila (2012) asserted that Open and distance learning (ODL) enables learners to combine work and family responsibilities. Through ODL learners acquire knowledge through both face to face and distance learning. However, ODL in Tanzania, among other factors, is influenced by inadequate infrastructure development an inadequate research capacity in terms of financing and low interest to ODL issues. According to Romi (2017), e-learning system which is composed of instructor, learner, course, and information and communication technologies (ICT). Use of ICT enhances the interaction between instructors and students. Burgess (2010) argues that because of its cost advantage, accessibility, diversity and quality, ODL has played an enormous role in promoting initial teacher education and training since the 1960s. Moreover, in developed countries, ODL is more preferred because of its capability in admitting students with diverse characteristics without discriminating gender, age, disability or ethnicity. Oladejo and Gesinde (2014) see the ODL as a viable and cost-effective system for providing better-individualized instructions. They also recommend African policymakers and planners to invest more in ODL. Khan et al. (2017) found that the determinants for adoption of ODL management systems are perceived institutional support, expertise, similarity, familiarity, informativeness, effectiveness, and experience. Hadullo et al. (2018) assert that the quality of e-learning management systems (LMSs) in developing countries at Jomo Kenyatta University of Agriculture and Technology is hindered by course design, content, social and administrative support, course assessment, learner characteristics, instructor characteristics, and institutional factors. Aldowah et al. (2018) asserted that information technology promotes quick learning. Aldowah et al. (2018) reported that the challenges facing the implementation of e-learning are gender, age, teaching experience, ICT experience and e-learning experience. ODL institutions use Open Educational Resources (OER) which according to UNESCO (2002), it integrates ICT and it allows a learner/a community to use it for noncommercial purposes.

However, D’Antoni (2009) asserted that the use of OER is low for most of the African countries. Brendan et al. (2009) argued that among the challenges faced OER development is lack of incentives and research, claiming that the researches concerning the use of OER are inadequate in the universities worldwide. Fozdar and Kumar (2007) argued that the role of research on student retention in ODL institutions has not explored adequately. There are scanty studies which assessed the role of research in promoting the ODL teaching and learning. For instance, Ṋemavhola (2019) assessed the application of research activities in ODL focusing on engineering viewpoint at the University of South Africa (UNISA). Moreover, Wong, Zeng and Ho (2016) analyzed the ODL trends from 2005 to 2015 by reviewing the empirical literature. The empirical literature review analysis focused on the influence of culture, globalization and international cooperation. Furthermore, Kanwar and Balasubramanian (2014) analyzed how indigenous and exogenous factors influenced the ODL in China. Therefore, this study assesses the role of research in promoting effective teaching and learning in ODL institutions, specifically at OUT.

## Methodology

The analysis of this paper is based on the empirical literature review. The author reviewed the studies done on the role of research in promoting effective teaching and learning in Tanzania and beyond. The author also analysed the studies done on ODL in Tanzania to ascertain the adequacy of the studies done on ODL in Tanzania. The paper used the African Journals Online, Directory of Open Access Journals, research gate, Emerald, Jstor, SAGE and Google Scholar databases to download articles. The key search words were ODL, Open and Distance Learning, Role of research, ODL and Tanzania, Open University of Tanzania and Role of ODL in the Open and distance learning. The data were analyzed by using the contents analysis. The contents were the ODL concentration variables for the studies conducted in Tanzania. Similarly, the study analyzed the adequacy of data analysis methods of the previous studies.

## Literature Review

### Studies Done Outside Tanzania

Fozdar and Kumar (2007) revealed that mobile learning technology has improved the students' retention for Bachelor of Science students at Indira Gandhi National Open University in India. The study revealed that mobile learning enhances students' teaching and learning because of its accessibility everywhere and at any time. This idea is supported by Al-Adwan et al (2018) who asserted that learning through mobile devices significantly and positively contributes to education delivery for students who are studying in higher education. By using Jordan as a case study, the study found that the factors that influence the intentions of students to adopt m-learning are the relative advantage, complexity, social influence, perceived enjoyment, and the self-management of learning. Therefore, considering these factors before the introduction of mobile e-learning in ODL institution promotes more understanding to learners. Naveed et al (2017) asserted that the advantages of E-Learning teaching are flexibility, freedom, accessibility, and lower costs. The study established that E-Learning barriers in Saudi Arabian universities are categorized into the student, instructor, infrastructure and technology, and institutional management dimensions. Chiwanga (2017) found that only 50% undergraduate and postgraduate students at the National University of Science and Technology (NUST) in Pakistan were using e-learning management systems in their studies while 48% of the students were using LMS rarely per semester. The study demonstrated that lack of training in using the system, inadequate IT support, lack of motivation by lecturers, resistance to use the system by lecturers, poor internet connectivity and inadequate computers on campus influenced the students to use of the E-learning system at NUST. Wirawan et al. (2018) exposed that MahaDasha investment holding company uses open source moodle learning management system technology platform in its infrastructure activities in Indonesia. The analysis of data indicated that information quality and user readiness influenced users' satisfaction positively. This study indicates the e-learning platform not only used in higher learning institutions but also for production-oriented companies. Blignaut and Christo (2010) disclosed that 59.58% of ODL students at North-West University in South Africa can easily have accessed the computer, 28.4% have accessed the reliable internet frequently, 54.27%, used computers, 54.57% usually needed computer assistance and only 33.92% were learners who were having skills to use the computer.

The results from the study signified that low computer usage skills were the major challenge for ODL students in Africa. Dube and Scott (2018) found that the organizational factors that influence the adoption of technology at the Sakai Learning Management System in education in Zimbabwe were organizational factors, individual and technological factors including policy, budget, training, decision making, implementation and consultation techniques. Ansong et al. (2017) by analyzing the Sakai Learning Management System revealed that there was little adoption of e-learning platform in Ghana. Also, it was revealed that e-learning was highly associated with cheating and plagiarism among the students. McHarazo and Olden (2000) argued that problems of administration, funding and technology faced distance education in both Tanzania and Zimbabwe. Kanwar and Balasubramanian (2014) argued that ODL researches concentrate on both internal and external variables the internal variables focus on studying approaches, systems, and tools while the exogenous variables cover the ODL demographic economic, social, cultural and political settings. However, the study did not analyze how the internal and external factors influenced the effective teaching and learning in ODL institutions. Ṋemavhola (2019) found that many staff at the University of South Africa (UNISA) had little opportunity to participate in research duties because of administrative responsibilities. Wong, Zeng and Ho (2016) analyzed the open and distance learning studies done between 2005 and 2015. The findings indicated that there were inadequate studies which focused on globalization and cultural aspects and none focused on international partnership. The findings further revealed that the majority of the studies used the quantitative approach and from 2015 the concepts of online learning were familiar by most researchers. The empirical literature from different countries outside Tanzania indicates that factors that affect e-learning in higher learning institutions are almost the same for all developing countries.

**Studies Done to Assess the Factors Influencing ODL in Tanzania**

Table 1 presents the analysis of the studies done to assess the operation of ODL in Tanzania. The analysis was done to identify the variable of the role of research in ODL in Tanzania. Table 1 indicates the author's title, sample size, methods for data analysis, findings and discussion on gaps to be covered by future studies. The gaps articulate the role of research in promoting learning at OUT and ODL institutions. Despite almost all studies do not articulate the role of research in promoting ODL, they give insights on the gaps which may be covered by future studies.

**Table 1: ODL studies done in Tanzania**

| **Name of Author (s) and year of publication** | **Title** | **Methodology**<br><br>**Sample size and data analysis methods, regions of study** | **Findings** | **Findings' gap** |
|---|---|---|---|---|
| Ngenzi (2012) | Challenges of E-learning in Open and Distance Learning (ODL): The Case of the Open University of Tanzania | Descriptive, sample size 20 undergraduate students and 10 academic staff, and 5 ICT technical staff. The study was done in DSM region-compared to the total number of students at OUT, i.e>20,000 and Academic staff>300 | Challenges of E-Learning at OUT are inadequacy of infrastructural facilities for both academic staff and students, low ICT knowledge for some staff and students and a negative mindset for staff and students. | The sample size is too small to draw a reliable conclusion. The postgraduates students were excluded in the analysis and the upcountry regional centres were also excluded |
| Rwejuna (2013). | Factors Affecting Completion Rates at the Open University of Tanzania. | Descriptive analysis, the sample size was 224 students from Dar es salaam, Dodoma, Singida, Arusha, Shinyanga and Tanga regions | The identified factors included examination feedback, students' commitment to studies, the financial status of students, availability of study materials, library materials, and quality of supervision | Despite wide coverage in terms of regions and relatively large sample size, the study did not focus much on the factors affecting the ODL model of teaching and learning |
| Kabage (2015) | Private Tutoring and Distance Learning Process at the Open University of Tanzania | Descriptive analysis, the sample size was 150 students and 6 private tutors, Dar es salaam and Katavi region | About 47% of students received private tutoring implying that blended mode is very important | The coverage of regions is not sufficient and also the focus is private tutoring and not how students perceive the use of ODL model |

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|---|---|---|---|---|
| Mnyanyi and Mbwette (2009) | Open and Distance Learning in Developing Countries: The Past, The Present and the Future | A conceptual paper, the sample size and regions of study are not very clear | Acceptance of ODL mode in Tanzania among students and staff of OUT is constrained by resistance to change by OUT staff and students because they were used to only distance learning and lack of skills in ODL especially computer use act as a barrier | It was a conceptual paper, an empirical study is required |
| Nyandara (2012) | Challenges and Opportunities of Technology-Based Instruction in Open and Distance Learning: A Comparative Study of Tanzania and China. | Descriptive analysis,<br><br>The sample size was 83-OUT and 61-China | In terms of practising and using e-learning instruction technology, Center for Continuing and Distance Education (CCDE -China) is doing better than the Open University of Tanzania (OUT). | The sample size is small and descriptive analysis is not sufficient to offer a reasonable conclusion |
| Mahai (2012) | ICT Based Support for Rural Students of the Open University of Tanzania: Perceptions, Challenges and Prospects. | Qualitative, the sample size is not very clear | The poor infrastructure in rural Tanzania, higher costs of Internet services, poor interaction between students and their peers and teachers, inadequate computer skills, and lack of access to ICT facilities | Qualitative study is not enough to give a reasonable conclusion |

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| | | | hindered the effective application of ICT in teaching | |
| Samzugi and Mwinyimbegu (2012) | Accessibility of Open Educational Resources for Distance Education Learners: The Case of The Open University of Tanzania. | Descriptive, 120 students and 80 academic staff, regions of study are not very clear | The major constraints in the use of OER were library users' dependency on librarian assistance in accessing the resources, low internet connectivity, unreliable power supply and the inadequate number of computers. | More mixed studies are recommended |
| Mnyanyi et al (2010) | Implementing E-learning in Higher Open and Distance Learning Institutions in Developing Countries: The Experience of The Open University of Tanzania. | The sample size is unclear | Challenges of ODL at OUT are low digital bandwidth; expertise in e-learning; e-learning infrastructure; incentive packages for retaining skilled personnel; low budget, inadequate funding for research on ODL; and costs of e-learning equipment | The empirical current study for verification is needed |
| Nihuka .and Voogt, (2010) | Instructors and Students Competences, Perceptions and Access to E-Learning Technologies: | Descriptive analysis, 32 instructors and 208 students, regions of the study were Dar es salaam, Coastal and Morogoro | Both students and instructors have positive perceptions about using e-learning technologies and have competences on basic computer and internet | More studies are recommended to validate the results |

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|---|---|---|---|---|
| | Implications For E-Learning Implementation at The Open University of Tanzania | | applications. | |

## Discussion

### *Gaps from the Previous Studies done in Tanzania*

The review of the literature indicates that there are some studies used qualitative analysis which generalized the findings. According to Sudeshna and Datt (2016), despite the qualitative approach enhances the detailed study of the research problem; it makes it difficult to generalize the findings, to make quantitative predictions and test hypothesis. Therefore, the credibility of the results from the qualitative analysis is relatively lower because its results depend on the experience and skills of the researcher and the qualitative research is also time-consuming. Also, descriptive research cannot answer the “why” and “when” questions satisfactorily. Descriptive research design cannot explain the cause-effect relationship. It has low requirements for internal validity and has a higher degree of systematic error (IPFS, 2016). Therefore, studies of explanatory designs for ODL studies are more recommended

Moreover, the sample sizes for some studies are very small to arrive at a reliable conclusion. The findings show that the high number of sample size is 240 which was used by Nihuka and Voogt (2010). However, other authors for example Ngenzi (2012) applied the descriptive analysis with a sample size of 35 respondents, which is not adequate for making a justifiable conclusion. According to Faber and Fonseca (2014), small sample size increases the results error and hence offers a possible chance of giving false conclusions. Suresh and Chandrashekara (2012) further asserted that for descriptive studies to give acceptable results, hundreds of subjects are needed in the analysis. However, the exact sample will depend on the confidence interval, sample size formula and whether the problem involves, power, effect or alternative hypothesis. Suresh and Chandrashekara (2012) asserted that experimental studies may use lesser sample compared to descriptive design. The studies further indicate contradicting results. For example, some authors report that some academic staff resisted e-learning (Mnyanyi and Mbwette, 2009; Ngenzi, 2012) while other assert that they are comfortable with ODL system (Nihuka and Voogt, 2010). Moreover, some studies asserted the students and staff possess the required internet usage skills (Samzugi and Mwinyimbegu, 2012) while others assert that low skills for staff and students act as a barrier towards the adoption of ODL mode (Mnyanyi et al., 2010; Mahai, 2012). These contracting results require further verification studies. Most studies were conducted at Dar es salaam except Kabage who his study was conducted at Mpanda (Katavi-region) who focused on the importance of the course tutoring system. Nihuka and Voogt (2010) also focused the upcountry regions of Coastal and Morogoro arguing that more regions located far from Dar es salaam regions were not chosen for the study because of inaccessibility challenge. The author perceives that involving students and academic staff only from Dar es salaam and nearest regions restrict the reliable conclusion of the results for the whole country. Moreover, the author perceives that since OUT is located in each centre, Director of Regional Centers might be used to facilitate data collection without physical travelling. Moreover, online data collection methods such as zoom may be used. Rwejuna (2013) distributed questionnaires to Director of the regional centres of Dodoma, Singida, Arusha, Shinyanga and Tanga regions. However, his study concentrated on the factors influencing OUT students' dropout rather than those which influence the adoption of ODL system. The literature likewise, shows that there are no current studies that have been conducted to assess the factors which influence OUT staff and students ODL's model adoption. The study may cover the current perception of the use of the blended model.

## Conclusion and Recommendations

The paper finds that the studies done in Tanzania focus on other factors/variables than the role of research in promoting ODL in Tanzania particularly at the Open University of Tanzania. Moreover, despite the studies did not use the term "research" they analyzed the variables affected the ODL in Tanzania. The findings indicate that the previous studies used descriptive and qualitative designs and did not focus on how research affected the teaching and learning at OUT and other ODL institutions in Tanzania.  the study recommends the use of mixed-method designs and use of advanced data analysis methodologies such as regression analysis, factor analysis and structural equation modelling (SEM), Therefore, the author recommends that studies should be conducted to assess the role of research on promoting the ODL teaching and learning at OUT and Tanzanian higher learning institutions.

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# Socio-Cultural Factors, Attitude and Belief on Compliance to Covid-19 Preventive Measures among Abuja Residents, Nigeria: Pivotal Roleof Health Education

Gloria Oiyahumen ANETOR,

Department of Human Kinetics and Health Education, Faculty of Education, National Open University of Nigeria (NOUN), Abuja **Email:**; gnetor@noun.edu.ng

&

Nwanganga Ihuoma UBOSI,

Department of Public Health, Faculty of Health Sciences, National Open University of Nigeria, Abuja

&

Olawale Akanbi MORONKOLA,

Department of Health Education, Faculty of Education, University of Ibadan, Nigeria

**ABSTRACT**

*Socio-cultural factors, attitude and belief have been identified as major factors of diseases compliance and are germane to preventing COVID-19 because of their direct influence in the preventive process of COVID-19. There is dearth of data concerning these variables in the spread of COVID-19. This study examined the influence of socio-cultural factors, attitude, and belief in the prevention of COVID-19 in Abuja, Nigeria and the pivotal role of health education in order to ascertain how the listed factors affect compliance of Abuja residents in preventing the spread of the disease. A cross-sectional survey design, and 338 participants selected using snowball sampling technique. A self-structured validated questionnaire (coefficient reliability 8.0) administered electronically for three weeks (June 2020) was used for data collection. Data analyzed using frequency counts, percentages and mean for demographic data. Hypotheses tested using inferential statistics of regression, T-test, ANOVA and Schefft's Post Hoc at 0.05 significance level. Attitude and belief were significant predictors of participants' preventive measures, $F$ (2, 335) = 6.373 where $p < 0.05$; indicating that increase in attitude and belief of the participants led to taking more precautionary* *measures of COVID-19. Family type of the participants influenced compliance to COVID-19 (T (336) = -3.109 where $p < 0.05$). Other socio-cultural factors: occupation, education, ethnicity, and income influenced participants' compliance to COVID-19 prevention ($p < 0.05$). Religion and neighborhood did not influence the participants' compliance to COVID-19 prevention ($p > 0.05$). Health education is a veritable tool to ameliorate socio-cultural factors influencing compliance to COVID-19 and has a pivotal role to play in preventing the spread of COVID-19. It should be positioned proactively to reduce the impact of the influence of socio-cultural factors on the spread of COVID-19. Similar studies should be carried out in other parts of Nigeria for comparison.*

***Keywords:* COVID – 19; socio-cultural factors; Abuja; compliance; prevention; health education.**

## INTRODUCTION

The novel coronavirus (COVID-19) identified in Wuhan, China, in December, 2019 is still ravaging the world. It is a novel viral strain, which has not been seen in human beings before now. Person to person spread has been on the increase. The coronavirus disease 2019 (COVID-19) pandemic presents unique challenges to all spheres of life. Like the other viruses that are in coronavirus family, it signs and symptoms which ranges from mild flu-like for example cold, sore throat, cough and fever, to more serious signs like pneumonia and breathing problems, which can ultimately cause death (Cirrincione et. al, 2020). The first COVID-19 case in Nigeria was recorded on the 27th of February, 2020 in Lagos state. It is important to recollect that the first death of a coronavirus patient was recorded by the Nigerian Center for Disease Control after the index case and second positive patient had already been discharged from the isolation centre (NCDC, 2020) Health education crusades for the promotion of cleanliness and social distancing in other to stop or reduce the extent of COVID-19 infection in the country were put in place by Government organizations. Safety precautions such as examination of body temperature the entry points and self-isolation of those coming back from high-risk countries, wearing of nose mask, social distancing which assumes dissociation and using of alcohol-based hand sanitizers were also introduced. (NCDC, 2020; Mansouri, 2020). Mansdorf (2020) observed that obedience to instructions and inculcated procedure is a long-lasting and identified problem in medicine because people often refuse to comply with what is useful for them. With this assertion, people are also expected to exhibit the same attitude as regards COVID-19 pandemic safety measures compliance. The key variables considered in this study are socio-cultural factors, belief, attitude, and compliance in relationship to prevention of COVID-19 and the pivotal role of health education in ameliorating non-compliance to CoVID-19 protocols. These variables go a long way to determine the willingness of individuals to take charge of their health or prevent diseases (Ugwu & Kok, 2015). Socio-cultural factors are major social determinants of health; they are the conditions in which people live, learn, work, and play in. The socio-cultural factors that influence health are many, but this study considered education level, income, religion, ethnicity, family type and neighbourhood. Beliefs and attitudes were also considered as they emanate from social and cultural indices, beliefs and attitudes are related to lifestyle. Beliefs are a fundamental aspect of human cognition that fulfills important individual and social functions. A belief is an idea that a person holds as being true, often considered as a conviction (Dagnall et al, 2019). On the other hand, an attitude refers to a set of emotions, beliefs, and behaviors toward a particular object, person, thing, or event. Attitudes are often the result of experience or upbringing, and they can have a powerful influence over behavior.

Attitudes are enduring and they can also change. (Mäntyselkä et al., 2019). Attitudes and beliefs are germane to keeping healthy. In many studies, beliefs and attitudes are considered along with socio-cultural factors. (Roudsar et al.,2015; Karigi et al.,2016). Compliance is conforming to established guidelines to prevent problems. The factors of compliance to diseases are multifaceted and socio-cultural factors and beliefs have been identified by the researchers as major factors of compliance. So long as lack of compliance to safety measures during the COVID-19 period endangers other people, it signifies an exceedingly high risk to public health and safety (Mansdorf, 2020). These variables were carefully considered to bring out their influence on Abuja residents' compliance to the preventive measures of COVID-19 because of the direct influence and success of these variables in the preventive process of COVID-19. Moreso, this type of study on COVID-19 is novel in Abuja which is the Federal Capital Territory of Nigeria. The findings in this study may help in strategizing and re-strategizing the prevention of COVID-19 pandemic.

**Brief description of study area:** Abuja is the capital of Nigeria since December, 1991 and referred as the Federal Capital Territory (FCT). It is located in the north central geopolitical area of Nigeria and has a land area of 8,000 square Kilometers. It is bounded on the north by Kaduna state, on the west by Niger state, on the east and south-east by Nasarawa state and on the south-west by Kogi state. Abuja's 2020 population is estimated at 3,277,740. During the early 2000s, the city's population grew by almost 140%. Today, most areas of the city still see annual growth of 35%, making it one of the fastest-growing cities in the world. The city's population is remarkably diverse. The residents include Ibo, Fulani, Yoruba, Afo, Gwari, Hausa, Koro, and Bassa (World Population, 2020). Generally, the FCT experiences two weather conditions in the year. These are the rainy season which begins around March and runs through October, the dry season (usually characterized by bright sunshine) which begins from October and ends in March. Within these periods, there is a brief period of harmattan occasioned by the northeast trade wind, with a resultant dusty haze and intense coldness and dryness. (The Geography of Abuja, 2020).

**Objectives**

1. Determine the influence of attitude and belief on COVID-19 preventive measures.
2. Discuss the relationship between socio-cultural factors and compliance to COVID-19 preventive measures.
3. Describe succinctly the pivotal role of health education in promoting compliance to the preventive measures of COVID-19.

**Hypotheses:**

1. The attitude and belief of Abuja residents will not significantly influence their preventive measures to COVID-19.

2. Socio-cultural factors (family type, occupation, religion, education, ethnicity, neighborhood, income) will not significantly influence Abuja residents' compliance to Covid-19 preventive measures.

**Materials and Methods**

Population: All Abuja residents.

*Predetermined criteria:* All adult residents (18 years and above) in the Federal Capital Territory (FCT), Abuja within the lock-down period (March-August 2020) were eligible to take part in the study.

*Inclusion Criteria:* All adults (males & females) living or working in Abuja during the lockdown period (March- August, 2020).

Exclusion Criteria: Individuals below 18 years of age.

*Design*: A cross-sectional survey design was used for the study. Questionnaires were sent to participants who reside in Abuja through their emails and mobile phone Whatsapp (Physical contact was not possible because of the lockdown associated with COVID -19 pandemic.

*Sampling technique:* Snowball sampling technique was used because of the lockdown associated with COVID-19 pandemic. Staff directory from National Open University of Nigeria, Abuja and University of Abuja were used to locate email addresses of participants; the researchers also used different contacts phone numbers from their churches and mosques groups to send questionnaire and asked their contacts to assist in sending to people who made the predetermined criteria. A period of two weeks was given to collect data; portal was closed at the end of two weeks. The filled questionnaires were also received electronically. The questionnaire contained a consent section to be filled by the respondents after which they could take part in the study. In this section, the purpose of the study was explained to the respondents; they were assured of confidentiality and anonymity.

*Sample size: A total of 338 residents in Abuja participated in the study.*

*Instrument:* A self-structured validated questionnaire (face validity used) was the instrument for data collection. Reliability was ensured using Cronbach Alpha (coefficient reliability 8.0). The questionnaire could be answered completely within 10 minutes.

*Data analysis:* Descriptive analysis of frequency counts, percentages and mean was used for the demographic data. The hypotheses were analzed using inferential statistics of Regression, T-test, ANOVA and Scheffa's Post Hoc analysis. All data analyses were performed using Statistical Package for the Social Sciences (SPSS) software, version 22. A value of $P < 0.05$ was considered statistically significant.

***Ethical Consideration:*** The participants filled the consent part of the questionnaire indicating their free will to participate in the study before continuing with further filling of the questionnaire. This section explained the voluntary nature of the study and freedom to decline without cohesion. They were also assured of confidentiality and anonymity in answering the questionnaire.

**Results**

**Table 1: Demographic variables**

| **Age (Years)** | **Frequency** | **Percentage (%)** |
|---|---|---|
| < 20 | 9 | 2.7 |
| 20-29 | 63 | 18.6 |
| 30-39 | 117 | 34.6 |
| 40-49 | 92 | 27.2 |
| 50 & above | 57 | 16.9 |
| **Total** | **338** | **100.0** |
| **Gender** | **Frequency** | **Percentage (%)** |
| Male | 150 | 44.4 |
| Female | 188 | 55.6 |
| **Total** | **338** | **100.0** |
| **Ethnicity** | **Frequency** | **Percentage (%)** |
| Hausa/Fulani | 60 | 17.8 |
| Igbo | 107 | 31.8 |
| Yoruba | 61 | 18 |
| Others | 110 | 32.5 |
| **Total** | **338** | **100.0** |
| **Family Type** | **Frequency** | **Percentage (%)** |
| Monogamous | 287 | 84.9 |
| Polygamous | 51 | 15.1 |

| | | |
|---|---|---|
| **Total** | **338** | **100.0** |
| **Religion** | **Frequency** | **Percentage (%)** |
| Christianity | 264 | 78.1 |
| Islam | 64 | 18.9 |
| Traditional | 6 | 1.8 |
| Others | 4 | 1.2 |
| **Total** | **338** | **100.0** |
| **Occupation** | **Frequency** | **Percentage (%)** |
| Civil servants/ Public servants | 178 | 52.7 |
| Industrialist | 2 | 0.6 |
| Self-employed | 66 | 19.5 |
| Full time religious leaders | 7 | 2.0 |
| NGOs | 33 | 9.8 |
| Traders | 3 | 0.9 |
| Artisans | - | - |
| Unemployed | 23 | 6.8 |
| Others | 26 | 7.7 |
| **Total** | **338** | **100.0** |
| **Average Monthly Income** | **Frequency** | **Percentage (%)** |
| < #30,000.00 | 62 | 18.3 |
| #30,000.00 - #49,999.00 | 49 | 14.5 |
| #50,000.00 - #99,999.00 | 55 | 16.3 |
| #100,000.00 - #149,999.00 | 72 | 21.3 |
| #150,000.00 - #199,999.00 | 41 | 12.1 |
| #200,000.00 & above | 59 | 17.5 |
| **Total** | **338** | **100.0** |
| **Highest Level of Education** | **Frequency** | **Percentage (%)** |
| Primary | 2 | 0.6 |
| Secondary | 7 | 2.0 |
| Post-Secondary but not up to | 83 | 24.6 |
| Degree | 151 | 44.7 |
| First Degree | 63 | 18.6 |
| Master | 32 | 9.5 |
| PhD/Doctoral | **338** | **100.0** |
| **Total** | | |
| **Categorization of what best** | **Frequency** | **Percentage (%)** |
| **describes your neighbourhood** | 64 | 18.9 |
| Rural | 197 | 58.3 |
| Urban | 77 | 22.8 |
| Semi-Urban | **338** | **100.0** |
| **Total** | | |

Table 1 above shows demographic variables of the respondents. In summary, majority of the respondents were below 50 years of **age** (83%) while approximately 17% of them were above 50years of age. The **gender** of the respondents shows that majority of the respondents 188 (55.6%) were females and 150 (44.4%) respondents were males. As regards **ethnicity,** 107 (31.7%) respondents were Igbo, while 61 (18%) were Yoruba, 60 (17.8%) were Hausa/Fulani and others representing minority ethnic groups were 110 (32.5%). In the case of **family type**, 287 (84.9%) were monogamous while 51 (15.1%) were polygamous. The **religion** of the respondents reveals that majority (264) were Christian, 64 (18.9%) were practicing Islam, while few (6) were traditionalists. The **occupation** of the respondents shows that majority (178) were civil servants, 66 (19.5%) were self-employed, 33 (9.8%) work in NGOs and the least (2) among the category were industrialists. The monthly **income** of the respondents shows that 62 (18.3%) earned less than #30,000.00, 49 (14.5%) earned between #30,000.00 - #49,999.00, 55 (16.3%) respondents earned between #50,000.00 - #99,999.00, 72 (21.3%) earned between #100,000.00 - #149,999.00, 41 (12.1%) respondents earned between #150,000.00 - #199,999.00 and 59 (17.5%) earned #200,000.00 and above. As regards **education** of the respondents, majority (151) of the respondents had first Degree, 83 (24.6%) had post-secondary but not up to Degree, 63 (18.6%) had Master, 32 (9.5%) had PhD/Doctoral Degree, 7 (2.0%) and 2 (0.6%) respondents had secondary and primary education respectively. On categorization of what best describes respondents' **neighbourhood,** majority (197) of the respondents were in urban area, 77 (22.8%) were living in semi-urban and 64 (18.9%) were living in rural area.

## Hypotheses

Ho1: The attitude and belief of Abuja residents will not significantly influence their prevention to COVID-19

Table 2: Regression analysis of respondents' attitude and belief to precautionary measures of the spread of COVID-19.

| Model Summaryb | | | |
|---|---|---|---|
| **R** | **R Square** | **Adjusted R Square** | **Std. Error of the Estimate** |
| 0.191a | 0.037 | 0.031 | 2.278 |

a Predictors: (Constant), Attitude, Belief
b Dependent Variable: Prevention

| | **Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Regression | 66.128 | 2 | 33.064 | 6.373 | 0.002 |
| Residual | 1737.99 | 335 | 5.188 | | |
| Total | 1804.118 | 337 | | | |

a Dependent Variable: Prevention
b Predictors: (Constant), Attitude, Belief

The result of the analysis in table 2 show that attitude and belief are significant predictors of respondents' preventive measures taken, F (2, 335) = 6.373 where $p < 0.05$. The result equally shows that there is a positive relationship which means that increase in attitude of the respondent leads to taking more of precautionary measures and also increase in belief of the respondents on the existence of COVID-19 will also make them take positive preventive measures to ensure compliance and reduction in spread of the virus through their actions. R square shows that there is a 3.7% increase in preventive measures taken by respondents due to increase in attitude and belief of respondents to COVID-19.

**Ho2: Socio-cultural factors (family type, occupation, religion, education, ethnicity, neighborhood, income) will not significantly influence compliance to COVID-19 preventive measures**

Table 3: Influence of family type on the level of compliance on COVID-19 preventive measures

| **family type** | **N** | **mean** | **Sd** | **t** | **df** | **sig. (2 tailed)** | **mean difference** | **std. error difference** |
|---|---|---|---|---|---|---|---|---|
| monogamous | 287 | 9.15 | 2.066 | -3.109 | 336 | 0.002 | -0.984 | 0.316 |
| polygamous | 51 | 10.14 | 2.173 | -3.002 | 67.063 | 0.004 | -0.984 | 0.328 |

The result of the independent t-test sample in table 3 shows that there is a significant difference in the compliance level in the family type of the respondents to COVID-19 infection. t (336) = -3.109 where $p < 0.05$. This implies that monogamous family has a carefree attitude to the compliance of the precautionary measures prescribed by health officials while there is a higher level of compliance to precautionary measures in a polygamous family.

**Table 4: Influence of selected socio-cultural factors on compliance to preventive measures of COVID-19 pandemic**

| **Occupational groups** | **Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** |
|---|---|---|---|---|---|
| Between Groups | 60.565 | 6 | 10.094 | 2.322 | 0.033 |
| Within Groups | 1438.654 | 331 | 4.346 | | |
| Total | 1499.219 | 337 | | | |
| **Religious groups** | | | | | |
| Between Groups | 33.06 | 3 | 11.02 | 2.51 | 0.059 |
| Within Groups | 1466.159 | 334 | 4.39 | | |
| Total | 1499.219 | 337 | | | |
| **Educational groups** | | | | | |
| Between Groups | 68.247 | 5 | 13.649 | 3.167 | 0.008 |
| Within Groups | 1430.972 | 332 | 4.31 | | |
| Total | 1499.219 | 337 | | | |
| **Ethnic groups** | | | | | |
| Between Groups | 45.173 | 3 | 15.058 | 3.459 | 0.017 |
| Within Groups | 1454.046 | 334 | 4.353 | | |
| Total | 1499.219 | 337 | | | |
| **Neighborhood** | | | | | |
| Between Groups | 25.188 | 2 | 12.594 | 2.862 | 0.059 |
| Within Groups | 1474.031 | 335 | 4.4 | | |
| Total | 1499.219 | 337 | | | |
| **Level of income** | | | | | |
| Between Groups | 75.219 | 5 | 15.044 | 3.507 | 0.004 |
| Within Groups | 1424 | 332 | 4.289 | | |
| Total | 1499.219 | 337 | | | |

From table 4, the result shows that there is a significant difference between **occupational groups** in their compliance to preventive measures to prevent the spread of COVID-19 pandemic $F(6, 331) = 2.322$, where $p < 0.05$. Hence, the null hypothesis is rejected. This implies that some workers in a particular occupational group will comply and obey strictly the measures prescribed by the health officials to stop the spread of COVID-19 virus, possibly because they have better exposure to health-related conditions which conditioned them to comply more than other groups. The result also shows that there is no significant difference between **religious groups** in their compliance to preventive measure to prevent the spread of COVID-19 pandemic F (3,334) = 2.51, where $p > 0.05$. Hence, the null hypothesis is not rejected. This implies that belonging to a particular religious group does not guarantee compliance and strict obedience to the measures prescribed by the health officials to stop the spread of COVID-19 virus. There is a significant difference between **educational groups** in their compliance to preventive measure to prevent the spread of COVID-19 pandemic F (5,332) = 3.167, where $p < 0.05$. Hence, the null hypothesis is rejected. This implies that some groups with high educational qualification will comply and obey strictly to the measures prescribed by the health officials to curtail the spread of COVID-19 virus. Also, there is a significant difference between **ethnic groups** in their compliance to preventive measures of COVID-19 pandemic F (3,334) = 3.459, where $p < 0.05$. Hence, the null hypothesis is rejected. This implies that belonging to a particular ethnic group does not guarantee compliance and strict obedience to the measures of COVID-19 virus. The analysis shows that there is no significant difference between the **neighborhood** and the respondents' compliance and obedience to preventive measures of COVID-19 pandemic F (2,335) = 2.862, where $p > 0.05$. Hence, the null hypothesis is accepted. This implies that living in a particular neighborhood does not guarantee compliance and strict obedience to the measures prescribed by the health officials to stop the spread of COVID-19 virus. There is a significant difference between the **income level** of the respondents in compliance to preventive measure to curtail the spread of COVID-19 pandemic. F (5,332) = 3.507, where $p < 0.05$. Hence, the null hypothesis is rejected. This implies that belonging to a particular income cadre does not guarantee compliance and strict obedience to the measures prescribed to stop the spread of COVID-19 virus.

**Table 5: Post Hoc of analysis of occupational groups on compliance to preventive Measures of COVID-19**

| **Compliance** | | | |
|---|---|---|---|
| Occupation | N | Subset for alpha = 0.05 | |
| | | 1 | 2 |

| | | | |
|---|---|---|---|
| Full time religious leaders | 8 | 8.75 | |
| Civil servants/public servants | 179 | 9.08 | 9.08 |
| Other | 26 | 9.23 | 9.23 |
| Self-employed | 66 | 9.27 | 9.27 |
| NGOs | 33 | 9.94 | 9.94 |
| Unemployed | 23 | 10.09 | 10.09 |
| Traders | 3 | | 12 |
| Sig. | | 0.875 | 0.075 |

The result in table 5 shows the compliance level of the respondents from different occupation types differ from each other in their compliance to curtail the spread of COVID-19 pandemic. However, the result shows that traders with mean score 12, have more compliance level to the stipulated rules and regulations prescribed by health officials to curtail the spread of the virus.

**Table 6: Post-Hoc analysis of levels of education on their compliance to preventive measures of COVID-19**

| **Compliance** | | |
|---|---|---|
| Highest_level_of_education | N | Subset for alpha = 0.05 |
| | | 1 |
| Master | 63 | 8.43 |
| PhD/Doctoral | 32 | 9.09 |
| Primary | 2 | 9.5 |
| First degree | 151 | 9.52 |
| Post-Secondary but not up to Degree | 83 | 9.58 |
| Secondary | 7 | 10.14 |
| Sig. | | 0.718 |

Table 6 shows the compliance level of the respondents from different levels of education differ from one another in their compliance to curtail the spread of COVID-19 pandemic. However, the result shows that the participants that have secondary school certificate as the highest qualification, with mean score 10.14, have more compliance level to the stipulated rules and regulations prescribed to curtail the spread of the virus.

**Table 7: Post-Hoc analysis of ethnic groups on compliance to preventive measures of COVID-19**

| Ethnicity | N | Subset for alpha = 0.05 | |
|---|---|---|---|
| | | 1 | 2 |
| Yoruba | 61 | 9.07 | |
| Other | 110 | 9.12 | |
| Igbo | 107 | 9.19 | 9.19 |
| Hausa/Fulani | 60 | | 10.08 |
| Sig. | | 0.988 | 0.069 |

The result in table 7 shows that the compliance level of the respondents from different ethnic groups differ from each other in their compliance to curtail the spread of COVID-19 pandemic. However, the result shows that Hausa/Fulani ethnic group with mean score 10.08, have more compliance level to the stipulated rules and regulations prescribed to curtail the spread of the virus.

**Table 8: Post Hoc of the level of income of respondents on compliance to preventive measures of COVID-19**

| **Compliance**<br>Average Income | N | Subset for alpha = 0.05 |
|---|---|---|
| | | 1 |
| 200,000 and above | 59 | 8.61 |
| 50,000-99,999 | 55 | 8.78 |
| 150,000-199,999 | 41 | 9.37 |
| 100,000-149,999 | 72 | 9.43 |
| 30,000-49,999 | 49 | 9.71 |
| Less than 30,000 | 62 | 9.9 |
| Sig. | | 0.062 |

Table 8 shows that the level of compliance in curtailing the spread of COVID-19 according to the respondents' incomes differ from each other. However, the result shows that respondents who earn less than N30, 000 with mean score 9.9, adhere more to the rules and regulation prescribed by the health officials to curtail the spread of COVID-19 pandemic than those who earn 200,000 and above.

## Discussion

The prevention of COVID-19 through immunization is ongoing in Nigeria but yet to be fully accepted by the people and majority do not want to receive the immunization.

Studies are investigating different measures that can help to reduce or prevent the spread of the novel pandemic disease. This study was carried out in the Federal Capital Territory (FCT) Abuja, Nigeria to investigate the possible influence of socio-cultural factor, attitude, and belief to the compliance of the preventive measures of COVID-19 as laid down by the Nigeria Centre for Disease Control (NCDC) (2020) in order to contribute to ways of curtailing the spread of the disease. The study also examined the possible role health education could play in preventing of the spread of the disease.he demographic variables show that three hundred and thirty-eight people participated in the stud. Majority of the participants were youths, males and from diverse ethnic group. Although the Igbos can be said to be the highest distinct ethnic group in the study (see table 1). The presence of youths in this study, can be an advantage because they are more mobile than the older groups and getting their views about COVID-19 may actually give a better insight to the true picture of the influence of the variables under investigation; the compliance to preventive measures of COVID-19. Their presence may also have been influenced by the mode of study applied by the researchers; electronic study which is computer literacy bias. Most youths tend to participate in such studies than older groups because of their advantage in the use of technology. This confirms the study of Reneland-Forsman (2011), where he reported that older people are at risk for exclusion in technological study due to limitation in technology use.

There is need to encourage older people to go for basic computer training so that they can be more computer literate and compliant and find it easy to take part in more digital activities. It is worthy of note that majority of the participants are civil servants whose monthly income can be classified as middle-class category (earning over 100,000 naira monthly). Being civil servants may be also have contributed to the computer literacy of the participants because many government establishments give computer trainings and update to their workers so that they can discharge their duties effectively and be abreast of knowledge. Their salaries being mainly in the middle-class category can help them to relatively provide their needs during the lockdown period. The educational level of the participants shows that they attained high education level; most of them have post-secondary qualifications. This should be an advantage to knowledge and understanding the essence of the preventive measures being put in place to prevent the spread of

COVID-19 infection. Education has been posited to increase knowledge, enhancing a sense of personal control that encourages and enables a healthy lifestyle (Hahn & Truman, 2015). Finally, majority of the participants live in the urban area of Abuja. This is desirable for this study because overcrowding tend to occur in the urban areas than the rural areas. Disease spread is not easy to control in urban areas compared to rural areas (Aliyu & Amadu, 2017). The participants are expected to keep social distancing; it is hoped that they will sincerely disclose how easy or difficult this can be achieved in the urban setting where most of them live in. The first hypothesis examined the influence of the participants' attitude and belief on the prevention of COVID-19. The regression model used showed a positive relationship, which means that increase in attitude of the participants leads to taking more of preventive measures. Also, increase in belief of the respondents on the existence of COVID-19 will make them take positive preventive measures to ensure compliance and reduction in the spread of the virus through their actions. This study confirms the finding of Kato et al. (2016) where they observed that a positive and healthy belief and attitude is the way to prevent illnesses and sustain health. This study has also reaffirmed that attitudes and belief may influence an individual's perception of COVID-19 and prevention. Since it is established that there is a strong relation between attitude and belief of the participants, targeted health education should be focused on the participants' mindset to enhance behaviour change, develop sustain positive and healthy attitude which undoubtedly will ensure better prevention of COVID-19.

The second hypothesis examined the influence of sociocultural factors on the compliance to prevention of COVID-19. Seven socio-cultural variables examined were: family type, occupation, religion, education, ethnicity, neighbourhood and monthly income. The polygamous family type appears to take more caution in the compliance to preventive measures compared to the monogamous family type. This finding is unexpected as one would have thought that the monogamous family is at a better advantage of keeping the rules of prevention to COVID-19 because of the probable smaller sizes that monogamous families are likely to have. The reason for this finding is not quite clear and it is at variance with previous studies where it was reported that polygamous families engender the threat to infections while monogamy could have evolved because it offered protection against the threat of infection (Arthi & Fenske, 2018). The occupation of the participants influenced how much preventive measures they put in place for COVID-19. The compliance was more noticed among traders, people in non-governmental organizations (NGOs) and self-employed. The probable reason for this may be attributed to the fact that the individuals took their health more seriously and provided what they believed was protective for them. Perhaps, those that work with the government, were waiting for the government to provide protective devices for them and would not spend their money on protective devices. Another possible reason is that the people not working for government are probably more monitored by health officials, so they are more at alert to follow the rules for protection. They perhaps want to prevent anything that will disturb their daily business. The NGOs, traders and self-employed people should be commended for keeping to preventive measures. The influence of religion on compliance to prevention of COVID-19 shows no influence on the compliance to the prevention to COVID-19. This is at variance with the study of Mojahed (2014) where he reported that religion may decrease risky behaviors both directly and indirectly. The educational level of the participants had influence on their compliance to the prevention of COVID-19. Surprisingly, people with just secondary education were more compliant than people with higher education. This again is at variance with some previous studies where higher education contributed more meaningfully to preventive measures of disease (Hahn & Truman, 2015).

It is noteworthy that some studies also reported that there is no rigorous and convincing evidence that education improves compliance with infection control precautions or reduces rates of infection, particularly in the long-term (Ward, 2011). This makes this finding controversial and calls for further study to ascertain the exact position of the influence of education on the compliance to disease prevention, especially COVID-19. Ethnicity influenced compliance level. The Hausa/Fulani group demonstrated the highest compliant level followed by the Igbo community. This finding about the Hausa/Fulani about high compliant level was not expected as it has been observed that this group of people have lower education, cultural beliefs and values that do not engender disease prevention (Fayehun & Omololu, 2011). However, this study positions them as people who care and follow laid down preventive rules of COVID-19. It will be necessary for other studies to reassess this finding to have a better perspective of the true position. The type of neighbourhood also appeared not to have influence on the compliance of the participants to prevention of COVID-19. This again is unexpected because access to improved sanitation, water supply and an enabling environment support those behaviours that are most successful in preventing further transmission. Chitewere et al. (2017) disclosed that research typically considered the neighborhood insofar as it provided an environment for disease transmission and as a target for disease prevention. Finally, the participants with less than 30,000-naira monthly income appeared to be more compliant to the preventive measures of COVID-19 infection. This is another outcome that is controversial. Scarbrough et al. (2011) indicated that the research they carried out on poverty revealed that lower income is linked to poorer health. The lower an individual's income, the higher the likelihood of disease and premature death. This study revealed that the lower income are more health conscious. On begins to wonder if the respondents were truly sincere with their responses. There is need to carry out further studies to authenticate this finding.

**Pivotal Role of Health Education**

It is well-known that health education plays a crucial role in the prevention and control of emerging infectious diseases, but how health providers should advise families and parents to obtain health education information is a challenging question. With coronavirus disease 2019 (COVID-19) spreading around the world, Nigeria inclusive, more and more people are using multiple sources for information. It is worthy of note that the general public may lack adequate knowledge about emerging infectious diseases, and this situation may be even worse in special groups, like children, the elderly, travelers, and other vulnerable groups. The importance of health education in curbing the spread of COVID-19 was reported in a study carried out in China where health education programmes improved COVID-19 knowledge among Chinese residents to hold optimistic attitudes and maintain appropriate practices (Qi, Chen, Zhang, 2020). In the past, when there were infectious diseases like severe acute respiratory syndrome (SARS), Middle East respiratory syndrome (MERS), Ebola among others, comprehensive or targeted health education was used to improve awareness, attitude and behaviour change of the people (Song, Tian, Wang, 2003; Gray, Kurscheid, Mationg, *et al*, 2020). Health education will help to emphasize the need for self-quarantine and practicing the necessary hygienic habits which the people take with levity in addition to the other preventive protocols (mask wearing, social distancing, hand washing/ use of sanitizer). Adhering to these protocols bother much on belief, attitude and some socio-cultural factors. Although there has been some health education and promotion campaigns or programmes in Nigeria, we still need a wide influenced and persistent-actioning campaign to face the outbreak of the novel infectious disease (COVID-19) to make people more compliant with the preventive protocols.

**Conclusion**

The influence of socio-cultural factors, attitude, and belief on compliance to COVID-19 preventive measures among Abuja residents, Nigeria was examined in this study. Attitude and belief had a positive relationship to the prevention of COVID-19. Increase in positive attitude and belief ensured compliance and reduction in the spread of the virus through their actions. Also, socio-cultural factors of family type, occupation, education, ethnicity, and income had influence on the participants compliance of COVID-19 prevention. On the other hand, socio-cultural factors of religion and neighbourhood had no influence on the participants compliance of COVID-19 prevention. Targeted health education should be given to the community on the influence of socio-cultural factors on COVID-19 to further reduce the spread of the disease. More studies on factors influencing compliance to COVID-19 protocols should be carried out in other parts of Nigeria for comparison. Health education should be positioned as a veritable tool to address the spread of COVID-19. The pivotal role of health education undoubtedly will prevent suffering from the pain of lost lives, health education campaigns should be continuously launched to slow down the spread of COVID-19.

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# The Influence of Motives and Significant others in Adolescent Tobacco Smoking: Evidence from a Survey of Secondary School Adolescents in Dar es Salaam

**Divine Joshua Mhalila**

The Open University of Tanzania

Email: divine.mhalila@out.ac.tz

## ABSTRACT

*This study explored the psychosocial influence of tobacco smoking among secondary school adolescents in Ilala district, Dar es Salam region. Specifically, the study sought to explore the influence of significant others and motives on tobacco smoking among secondary school adolescents. A cross-sectional survey was conducted among 400 secondary school adolescents aged between 12 and 22. The findings revealed that the major motive that drives adolescents to smoke tobacco was experimentation. Other motives include; the desire to reduce frustration, pleasure, persuaded to smoke, a way of solving problem, and the habit of being sent to light up cigarette. It was further revealed that smoking cigarette as a way of keeping busy had little influence on secondary schools' adolescents in Ilala district while the influence of close friends and brothers made a strong contribution to secondary school adolescents in Ilala district to smoke tobacco. Significant others like sister, mother and father were found to have little influence on secondary schools' adolescents' tobacco smoking behavior.Based on the findings of this study, it is recommended that factors such as motives and the influence of significant others need to be taken into account when considering psycho-educational intervention programs to preventing smoking.*

***Keywords: Psychosocial, Motive, Significant Others, Tobacco Smoking, adolescence***

## INTRODUCTION

Adolescence is the transitional period from childhood to adulthood in which a person experiences rapid physical growth along with mental and social growth development (Santrock, 2005). During this stage an adolescent commence to build abstract thinking. The processes associated with abstract thinking increase slowly when solving problems or making decisions (Cobb, 2001). During adolescence period an individual start to keep a distance from parents and tries to build autonomy. What's more, during the middle stage of adolescence friends play a crucial role in this process. When the late period of adolescence is finally reached, abilities in abstract thinking develop fully, and as a result, the person thinks about his/her future roles and plans (Santrock, 2005). While undergoing these processes, adolescents achieve physical, mental, and social growth, together with the increase of socio-cultural changes. Individual adolescents tend to form and develop their attitude and value systems as well as securing and maintaining a social status associated with being an adult (Cobb, 2001). Most people may experience these processes and changes without many problems; however, some may fail to copy and adjust to a new social life and associate with friends, becoming easily exposed to tobacco or alcohol (Lugoe, 1996).

### *Adolescent's Tobacco smoking and its prevalence in United Republic of Tanzania (URT)*

Most often smoking does not start all at once (Taylor, 2003). There is a period of initial experimentation, during which an adolescent tries out a cigarette, experiences peer pressure to smoke, and develops attitudes about what smoking is like. Following experimentation, only some adolescents go on and eventually become heavy smokers. The majority of adult smokers begins smoking during adolescence and become dependent on nicotine during the first year of tobacco use (Cobb, 2001; Shamrock, 2005; and Feldman, 1997). Adolescents' tobacco smoking has been reported to be associated with other health compromising behaviors such as early initiation of teenager sexual activities, alcohol, illicit drug use and suicide (Cobb, 2002). Tobacco use by children and adolescents is becoming a global problem. It has been reported that nearly 82,000-99,000 children and adolescents all over the world begin smoking every day (World Health Organization, 1999). Research shows most smokers commence smoking before the age of 18 years, with the median age of initiation at 15 years. About half of them would continue to smoke to adulthood and half of the adult smokers are expected to die in early years of adulthood due to smoking related diseases (U.S. Department of Health and Human Services, 2012). The current available data for tobacco smoking rates among adolescents in the United Republic of Tanzania (URT) is not national wide surveyed. Various studies suggest an increase in tobacco use among adolescents (Drope, 2011). In the study by Siza and Mshiu (2007) which interviewed 423 participants between the ages of 13 and 15 years in Moshi rural district, it was revealed that a total of 24.4 percent (112 out of 423) of respondents reported that they had tried smoking tobacco. Another study conducted by Kaduri (2008) in Kinondoni district, Dar es Salaam city, found that the tobacco smoking prevalence was 10.3 percent among male adolescents and 3.4 percent among female adolescents.

In another study in Temeke district by Kida *et al.*, (2010) the prevalence of tobacco smoking was reported to be about 23 percent and 16 percent among male and female secondary school adolescents respectively. Jagoe and colleagues (2002) in Ilala district found the tobacco smoking prevalence of about 27 percent in male and 27 percent female aged 15 years and above. Furthermore, Siza *et al.*, (2007) conducted the research in northern Tanzania and found that the prevalence of smoking among school adolescents was about 3.0 percent and 1.4 percent in male and female adolescents respectively. Moreover, Motiki conducted the study in three regions namely; Dar es Salaam, Arusha and Kilimanjaro between year 2003 and 2007. The study revealed that the prevalence of tobacco uses among adolescents between 13 and 15 years of age increased among girls who smoked in year 2008 compared to those in year 2003. In addition, there was slight decrease in the prevalence among boys. In these studies of prevalence of tobacco use among adolescents of 2003 and 2007, minimum age to start smoking was reported 12 years old.

**Adolescent's Health Problems Related to Tobacco Consumption**

Many teenagers and adults think that there are no effects of smoking on their bodies until they reach middle age. In fact, there is much serious harm from smoking tobacco (Difranza, *et al.,* 2002). According to Holmer, *et al.,* (2000) conducted the study in Norway on health problems in teenage daily smoker versus nonsmoker, there were no specific health problems were more common in nonsmokers than in daily smokers. Boys and girls who smoked daily reported poorer general health problems such as headaches, neck, shoulder pain, muscle and joint pain, stomachaches, constipation, diarrhea, nausea, frequent heartbeats, and hearing-related disability. The study further reveals that feeling disabled from psychological problems such as nervousness/restlessness, sad, sleep difficulties was also associated with daily smoking in both boys and girls and that bronchitis and/or pneumonia and sinusitis were reported significantly more often by daily smokers of both sexes. Asthma and feeling disabled from physical disease were more common only in girls who smoked daily. Feeling disabled from motion restriction was more common only in boys who smoked daily while daily smokers of both sexes were more likely to have been absent from school and reported to attend more in hospitals.

Furthermore, Gold, *et al.,* (1996) conducted the study in USA on the effects of cigarette smoking on lung function in adolescent boys and girls. The study reported that cigarette smoking was associated with evidence mild airway obstruction and slower growth of lung function in adolescents and those adolescent girls may be more vulnerable than boys to be affected by smoking on the growth of lung function. Adult who commence smoking during adolescence can have lungs that never grow to their potential sizes and never perform at full capacity (U.S. Department of Health and Human Services 2012). Moreover, adolescents smoking tobacco were found in increase the risks of developing on episodes of major depressive disorder (MDD) and drugs abuse/dependence (Brown, *et al.,* 1996).Smoking was linked to 856,000 deaths worldwide from lung, bronchial and tracheal cancers; 184,000 esophageal cancers and 131,000 oral cancers in 2001 (WHO, 2005). Health problems related to the use of tobacco are even less well documented in URT. Below is a table that shows mortality rates from cancer, respiratory and circulatory diseases associated with tobacco smoking in URT.

**Table 1:** ***Mortality from cancer, respiratory and circulatory diseases in URT***

| Disease | Male | | Female | | Ages |
|---|---|---|---|---|---|
| | No | rate | No | rate | |
| **Trachea, lung, and bronchial cancer** | 22 | 1.2 | 0 | 00 | 45+ |
| **Lip, oral cavity, and pharynx cancer** | 690 | 45 | 405 | 21.5 | 45+ |
| **Respiratory diseases** | | - | - | - | |

*Source:* Ferlay, *et al.,* 2000

The above table reveals that the death caused by cancer due to the use of tobacco products was more common in males than in females. Tobacco smoking seriously threatens sustainable development of the world's poorest nations through disability and premature death. In URT for instance, about 32 percent of all cancers at Ocean Road Institute are associated to tobacco consumption, with the country spending more than $30 million annually to treat tobacco cancer related diseases (Kagaruki, 2010)

## Psychosocial Influence of Smoking Tobacco among Adolescents

Various aspects like social/environment, personal/motives and other social cultural environment may put adolescents in temptation to commence tobacco smoking (Cobb, 2001). The temptation to commence tobacco smoking may be due to an adolescent wanting to establish and develop his/her own identity and autonomy. When adolescents reach the stage of forming self concept, they face identity vis-à-vis role confusion, whereby the major issue is testing things seen from either elders or peers. At this stage adolescent internalize whatever behaviour they consider special or unique to them as observed in significant others. This includes smoking. (Santrock, 2005).

## Environment/Social Factors

### The Influence of Significant Others on Adolescents' Smoking

The social learning theory emphasizes the importance of the interplay between individual traits and the environment (Santrock, 2005). From observing others, children develop expectations about smoking prior to the intention to smoke. Therefore, much of the epidemiological research on adolescent tobacco use has focused on external behavioural influences. It was initially believed that children copied their parents with regards to smoking or not, but over time it was found that the influence of close friends increased during adolescence (Santrock, 2005). A study of Californian adolescents aged 11to16 years was done to examine the correlates of smoking prevalence estimates with the result that observing a best friend smoking accounted for the largest proportion of the variance in prevalence estimates. While the cross-sectional nature of the study meant that causality could not be determined, the researchers concluded that adolescents with smokers in their social networks and schools may be especially susceptible to smoking, because their peers' smoking may give them the impression that smoking is more normal (Unger & Rohr Bach, 2002). Further studies into parental and friends' influence during adolescence used data from the national longitudinal study of adolescent health researchers of which included a survey of 90,000 United States adolescents with a follow-up survey of a core group of almost 10,000 individuals.

This study suggested that smoking by both parents and friends is implicated in adolescent smoking but the influence does not vary by age. A supplementary finding was that an adolescents' smoking is more influenced by a friend smoking than by a parent smoking (Bauman *et al.*, 2001). Peers and parents in a United States study on smoking initiation published in 2004 have given further consideration to the relative contribution of smoking. The four-year longitudinal study of a sample of 812 pre-adolescents looked at three groups of smoking experimenters of different ages, as well as the non-smoking majority, and followed their smoking trajectory. Results revealed that parents smoking predicted membership of the 11 to 12 years-old starters' group, both parents and friends smoking predicted membership of the 12 to 13 years-old starters' group and only friends smoking predicted membership of the 13 to14 starters' group (Vitaro, 2004). Kiangi (1995) observed a strong association between family members' and friends' use of tobacco among URT adolescents. Adolescents commonly go on errands, such as buying alcohol and tobacco, or light cigarettes for adults, and possibly traditional society encourages this custom of getting assistance from their children. The lighting of cigarette (s) by the adolescents may partly be attributed to the cost of lighters, which makes it necessary for a smoker to use the kitchen fire. Some research conducted in some parts of URT revealed that "family members" and "friends" use of tobacco positively influences adolescents to smoke (Kiangi, 1995; TGYTS, 2003 and Kaduri, 2009). However, there are many aspects about the relative influence of parents and peers that have remained unresolved by research due to different combinations of predictor variables, the range of methods and populations, and the variety of analytical approaches that have been used (Tyas &Pederson, 1998). What is more, there is a need to explore more the influence of significant others on adolescents smoking. This study therefore explored the influence of significant others on adolescents smoking in Ilala district.

**Motives That Drive Adolescents to Smoke Tobacco**

Motive refers to that which causes somebody to act in a particular way; a reason (Hornby, 2005). This implies that an individual can act in a particular way because something is behind that action. In the same vein, adolescents engage in health-compromising behaviour like smoking because there is a motive behind that.Studies in the USA revealed that friends smoking, curiosity, stress and boredom were the common reason given for smoking by 223 outpatient adolescents (Tuakli *et al*., 1990). In addition, becoming adults makes socialization, modernity, affluence, friendship, social norms, sales promotion, and access to tobacco, and lack of anti-tobacco information important reasons why young people worldwide are smokers (Chapman 1995). A qualitative study done by Niknami, Akbari, Ahmadi, Babaee-Rouchi and Heidarnia, (2008) observed that experimentation is also an important reason for adolescents to begin tobacco smoking. One adolescent described his experience: *"I tested it because I wanted to know what it Is.* [boy, 12 years old] Pg 1294. Furthermore, Niknami et *al.*, (2008) observed that some college adolescents believed that smoking has many perceived advantages (relieves boredom, stress, social anxiety, etc): *"I start smoking whenever I get nervous and I do so with pleasure"* (Experimenting, non-smoker, 13 years old) Pg1297. In addition, reducing frustration was reported as one reason for college adolescents to start smoking tobacco. In a study conducted among 1973 school children in Nigeria, it was reported that pleasure, fun, relaxation, friends who smoke, concentration and nervousness are the reasons for adolescents to indulge in smoking (Elegbeleye and Femi-pearse, 1976). In URT, a cross-survey of 2869 pupils in Hai, Moshi rural, Kilombero, Morogoro rural, Temeke, and Kinondoni district, 61.8 percent of adolescents reported experimenting, 20.8 percent of adolescents reported persuasion, 8.2 percent of adolescents reported relaxation and 9.9 percent reported relief of anxiety, keeping oneself busy, or solving a problem (Kiangi, 1995). In the Tanzanian context, information about motives for adolescents to smoke is limited, as only a few districts such as Kinondoni, Temeke, Hai, Moshi Rural, Kilombero and Morogoro Rural districts have explained why adolescents begin smoking. However, they have provided only general results without specifying the results in each district. Thus, it may prove difficult to get the whole picture on motives that drive adolescents to take up smoking in each district. Data on influence of tobacco smoking among Tanzanian adolescents are scattered and are not nationally representative. Thus, it seems necessary to get data of the complete picture on influence of smoking among adolescents by region. For instance, in Dar es Salaam region available information shows that research on influence of smoking among secondary school adolescents specifically significant others and motives has been done in two districts namely, Kinondoni and Temeke only. However, in Ilala district, the available data show there is a higher prevalence of tobacco smoking than in Temeke and Kinondoni although there is paucity information about the influence of significant others and motives that drives adolescents to smoke. Hence this paper presents the exploration of the influence of tobacco smoking specifically significant others and motives that drives adolescents to smoke among secondary school adolescents in Ilala district.

## Materials and Methods

The Ilala district of Dar es salaam region was selected for the study due to the fact that it shows high prevalence of smoking tobacco among adolescents compared to other districts namely Temeke and Kinondoni (Jagoe *et al*, 2002; Kaduri, 2008; and Kida;2010). Another reason for selecting Ilala was that, significant others and motives that drive adolescents to smoke have hardly been investigated as compared with other districts, namely Temeke and Kinondoni. A cross-sectional survey design was considered to meet the demands of the study because it allowed the collection of various data from secondary school adolescents with different socio-demographic characteristics, such as age and form (grade level). It also helped in the collection of information on adolescents' influence of significant others and motives that drive to smoke tobacco within a relatively short period of time and at one point of time (Gay, Mills, & Airrasinan, 2006). Simple random sampling was employed in the selection of schools and participants for the study. This was to ensure an equal chance of selection and representation of participants in the study at school and form levels (Leedy & Ormord, 2001). Four secondary schools were selected namely Jamhuri, Benjamini Mkapa, Pugu and Dar Es Salaam, to make a sample of four schools from eighty-five schools in Ilala district. An assumption was made that all the schools had the same characteristics in terms of the study variables. The study comprised 400 adolescents (form I to IV). Form one to form four students of all schools have a minimum age of 12 years and a maximum age of 22. The mean and standard deviation of age was found to be 16.65 and 1.68 respectively. This study used the questionnaire as an instrument of data collection. Since smoking is prohibited by school rules and regulations, it was difficult to use interviews or other methods of data collection because students (especially tobacco smokers) were expected to be afraid to participate freely in the interview or other data collection methods that could have identified them. The data obtained through questionnaires were coded and total scores computed. Statistical Package for the Social Sciences (SPSS) version 15.0 was employed in the data analysis. From the SPSS, frequencies, descriptive statistics, were obtained.

## Findings and Discussion

### The Influence of Significant Others on Adolescents' Smoking

Out of 400 participants, 246 (61.5 percent) reported to be non smokers while 154 (38.5) reported having smoked. The following table summarizes the findings which are presented in terms of frequencies and percentages.

**Table 2.** ***Frequency on the influence of significant others on adolescents smoking among secondary school in Ilala district (N=400)***

| Significant others | Frequency | Percent |
|---|---|---|
| **Close friend** | 67 | 16.8 |
| Sister | 2 | 0.5 |
| Brother | 25 | 6.3 |
| Father | 5 | 1.3 |
| Mother | 3 | 0.5 |
| Not influenced by significant others | 52 | 12.5 |
| Non-smoker | 246 | 61.5 |

The findings revealed that 16.8 percent (refer to table 2) of adolescents were influenced by their close friend. From these findings significant others especially close friends appear to be the most influential in causing adolescents to smoke. The influence may occur through observational learning (vicarious) whereby adolescents may observe their close friends' tobacco smoking, which in turn influences them to commence smoking. The influence may also occur through persuasion whereby non-smoking adolescents are asked by their close friends to smoke a cigarette, and it is possible that non-smoking adolescents are told by their close friends about the advantages of tobacco.

As mentioned earlier, close friends played a significant role in influencing adolescents to commence smoking. It therefore seems that adolescents shift of attention from parent to peers, influence of peers, the accessibility of health-damaging material and opportunities in risk situations increase the likelihood of their involvement in non-conventional and health-compromising behaviours including tobacco smoking. The findings on the influence of close friends on tobacco smoking among secondary school adolescents in Ilala are consistent with other previous studies. For instance, Alexander *et al.* (2001) found smoking to be linked with peers' network in which at least half of their members smoked, one or two best friends smoked and smoking was common in school. Moreover, Unger and Rohrbanch (2002) concluded that adolescents with smokers in their social network and school may be especially susceptible to smoking because their peers smoking may give them the impression that smoking is more normal. However, Vitaro, (2004) found that parents' smoking predicted membership of the 11 to 12 years old starter trajectory group, both parents and friends smoking predicted membership in the age 12 to 13 years old starters' group and only friend smoking predicted membership of the 13-14 years old starters' group. The inconsistency in results might be due to different sample sizes, contexts, or the objectives of the studies and research design. Interestingly, this study revealed that significant others, especially *brothers,* also appeared to influence secondary school adolescents to start smoking. Among 18 percent of adolescents who lived with their brothers who smoked tobacco, 6.3 percent (refer to table 4) reported being influenced by their brothers to smoke tobacco. In the same manner, among 9 percent of adolescents who lived with their sisters who smoked tobacco, only 0.5 percent reported being influenced to tobacco smoking by their sisters. This implies that adolescents whose brothers smoke cigarettes had a higher risk in engaging in tobacco smoking than the adolescents whose sisters smoke cigarettes.

This implication might emanate from social normative behaviours among traditional societies. For instance, in URT it has been observed that smoking by men seems to be accepted, and it is strange to find women smoking a cigarette, though a few women are smokers of tobacco (refer prevalence of tobacco smoking among adolescents in URT); that is why the findings revealed that brothers had a stronger influence than sisters in influencing secondary school adolescents in Ilala district to smoke. This observation is hardly documented in other studies. It is therefore imperative to educate societies that tobacco smoking has adverse effects on both males and females. This study found that *father* and *mothe*r influenced secondary school adolescents in Ilala district to smoke. Out of 4.3 percent of adolescents who reported living with their mothers who smoked tobacco, 0.8 percent reported being influenced by their mothers to smoke. Similarly, out of 12 percent adolescents who reported living with their fathers who smoked tobacco, 1.3 percent reported being influenced by their fathers to smoke tobacco. This implies that paternal influence was stronger than maternal influence in causing secondary school adolescents in Ilala to smoke. This is in line with Kandel and Wu (1995) who argue that adolescents whose parents smoked were likely to be smokers than were adolescents whose parents did not smoke. In contrast, the findings differ from the study reported by Santrock (2005) which revealed maternal smoking was more strongly related to smoking by young adolescents, especially girls, than paternal smoking. The differences in results from various studies might be due to the different contexts in which the studies were conducted or the different research methodologies employed. However, 12.5 percent of tobacco smoking adolescents in Ilala district reported they were never influenced by significant others. They may have instead been influenced by other factors, like motives, Self efficacy and self-esteem.Generally, family and peers are important factors in adolescents' lives. Garbarino, Abramowitz, Asp, Ebata, Galambos, Gamble, Garbarino, Kaus, Kelly, Schellenbach, Sculenberg, Sebes, & Vondra, (1985) noted that the family often plays an important role in the etiology of personal and social problems. It is undoubtedly the case that at the micro-systemic level family and peers are important factors in adolescents' lives. The adolescent is seen as an active shaper of his or her own experience, making it unwise, for example, to blame parents or family for all the adolescent's troubles.

Furthermore, the greatest risk for disturbed development comes from situations in which there is a powerfully pathogenic meso-system – for example, when both home and peer group reward delinquent behaviour. Apart from that, during adolescence, adolescents' exploration of their identity is at a peak. This puts young people in a very vulnerable position, and makes them extremely sensitive to the norms, conventions and feedback provided by the peer group. If the peer system provides them with positive feedback regarding their personal identity expressions, they will try to maintain the norms and values of the system (Lugoe, 1996). If adolescents receive negative feedback from their peer system regarding their personal identity expressions, according to Harter (1999), they react in three ways. First, they may try to change themselves to fit into the peer system. In the case of tobacco use this would mean having a positive attitude towards tobacco smoking and possibly undergoing smoking initiation. Secondly, adolescents may try to change the peer system, or thirdly, they might even place themselves (and their values) outside the peer system completely, and become loners. Furthermore, adolescence is a time of transition. Adolescence forms a bridge between the relatively sheltered environment of childhood and the role of adulthood. Adolescents begin to confirm their own identities and emulate adult roles. There is a heightened awareness of role models and a tendency to establish boundaries through experimentation and experiencing new risks (Santrock 2002). Since ongoing secondary school adolescents in Ilala district spend much time in the school environment, it is obvious that they interact with their close friends who smoke tobacco, which in turn causes them to take up smoking. Therefore, it is suggested that, due to the increasingly complex nature of society, early socialization needs to build the capacity for communication, and making decisions for healthy behaviour and learning.

**Motives That Drive Adolescents to Smoke**

This study also aimed at identifying motives that drive adolescents to smoke tobacco. Table 3 presents the summary of results identifying various motives that drive adolescents to smoke in Ilala district.

**Table 3:** ***Frequency on motives for smoking by secondary school adolescents in Ilala***

| Motive | Frequency | Percent |
|---|---|---|
| Experimentation | 33 | 8.3 |
| A way of keeping busy | 4 | 1.0 |
| A way of solving problem | 8 | 2.0 |
| Reduce frustration | 26 | 6.5 |
| Feel pleasure | 29 | 7.3 |
| To relax | 18 | 4.5 |
| Persuaded to smoke | 22 | 5.5 |
| Sent to light cigarette | 14 | 3.5 |
| Never smoked | 246 | 61.5 |

The above table shows that the foremost motive which leads secondary school adolescents to smoke tobacco was *experimentation*, whereby about 8 percent reported smoking so as to test it. This implies that the majority of secondary school adolescents who had smoked in Ilala district did so because they just wanted to test it out. During adolescence experimenting with a wide range of behaviours including smoking becomes prominent. Experimentation occurs after observing significant others who smoke cigarettes and as a result adolescents copy them. This can be explained by the social cognitive perspective of human development that provides a multidimensional view on various factors influencing adolescents' behaviour (Bandura 1986). This perspective highlights the interaction between the person and the environment, and therefore factors influencing adolescents' tobacco use. Thus, a person is most directly influenced by his or her immediate environment, which for most adolescents will include the home, family and peers. Generally, various stimuli from the environment may motivate adolescents to experiment, which in turn will become part and parcel of behaviour. Smoking in public places is strongly recommended to be prohibited in order to avoid adolescents copying the behaviour and finally becoming active smokers. The observation that experimentation is the foremost reason for secondary school adolescents in Ilala district to smoke tobacco is consistent with previous studies. Kiangi, (1995) reported that the main reason for adolescents smoking was experimenting (61.8 percent). Furthermore, another qualitative study conducted by Niknami *et al,* (2008) found similar results.

However, slight differences have been observed, especially in the study done by Kiangi (1995) which presented a higher percent of experimenting than the present study, while the study done by Niknami *et al.,* (2008) did not show how many percent of participants reported that they smoked because they wanted to experiment. The differences which appear in these studies may be attributed to the methodologies employed by the studies. For example, Kiangi (1995) and this study obtained data using the quantitative approach, while Niknami *et al.,* (2008) obtained data from the qualitative approach. These findings support the developmental action theory and in this case the goals of tobacco smoking may have been shaped by the experiences a young person has had in the context of everyday life. These experiences in turn are influenced by age-related normative expectations on the part of society, in which adolescence is seen as a time of experimentation (Moffit, 1993; Shedler and Block, 1990). Generally, the desire to experience tobacco has been seen as a form of goal-directed learned behaviour for a person who values new experiences (Jessor, 1987). This study identified *pleasure* as another motive that drives adolescents to smoke in Ilala district. About 7 percent of adolescents (refer to table 3) were reported to smoke tobacco because they wanted to experience pleasure. It is believed that tobacco contains amounts of nicotine which stimulate the user to feel pleasure after use and also it is one of appetitive substances (Choi, *et al.,* 1997). In most cases it might be difficult for adolescents to stop smoking tobacco they have started and they might continue smoking in the future. These findings are consistent with a previous study conducted among 1973 school children in Nigeria where Elegbeleye and Femi-Pearse (1976) reported pleasure to be among the reasons for adolescents starting to smoke tobacco. In addition, Novacek, Raskin, & Hogan, (1991) found that pleasure appeared to be the main reason for adolescents to smoke tobacco. Therefore, this study suggests that a conducive environment should be provided especially at school and home where adolescents interact a lot. For example, various activities should be encouraged at school and home, and should be designed in a way that they will capture adolescents' interest which in turn will provide them with pleasure, so that they are not tempted to smoke tobacco.

*Reducing frustration* was found to be among the main motives that drive secondary school adolescents in Ilala district to smoke cigarettes. 6.5 percent (refer to table 3) of those who had smoked did so in order to reduce frustration. This implies that some adolescent smokers in Ilala district experience various problems which make them frustrated and as a result perceived tobacco smoking a good way to reduce frustration. Similar findings were reported by Niknami *et al.,* (2008) who quoted one of his respondents as follows;

> *"I know that once I have graduated from university I will not be able to find a job and I won't know what to do. My family will not be able to help and I don't know who I would have to turn to for a job". I don't want to worry; I want to clear my mind, so I start smoking [Smoker, male, 22 years]"*

The fact that reducing frustration was revealed to be a motive that drives some secondary school adolescents in Ilala district to smoke, raises a concern about the effects of social structures of the society that may put an adolescent at risk of smoking. A society that is unable to realize the common values of their residents or solve their commonly experienced problems, such as lack of social bonds, joblessness, unhealthy role models for youth, unhealthy social environment and feelings of frustration and injustice may cause a higher rate of tobacco smoking among adolescents. Therefore, this study suggests that proper guidance and counselling should be provided at home and school, which will enable adolescents to acquire a proper approach so as reduce frustration and cope with various situations. 5.5 percent of adolescents (refer to table 3) who had smoked in Ilala district reported having been *persuaded to smoke* cigarettes. Although the results do not show who was responsible for persuading adolescents to smoke, the study may rely on the influence of significant others in explaining who is in fact responsible for persuading. According to the findings about 17 percents of adolescents reported that close friends influenced them to smoke tobacco. The influence to smoke therefore may occur through persuasion or observation. With respect to findings, secondary school adolescents who reported to have been persuaded to smoke may have been told by their close friends about the advantages of tobacco smoking and this in turn encouraged them to indulge in tobacco smoking. Also it should be noted that persuasion does not occur unless the persuaded person agrees with that information which seems to be beneficial to him/her. Similar findings were revealed by Kiangi (1995), whereby 20.8 percent adolescents were reported to have been persuaded to smoke tobacco. This study therefore suggests that proper education focusing on the problems relating to tobacco smoking should be introduced at school level to enable students acquire proper knowledge of the problems tobacco causes so they may be persuaded to avoid smoking tobacco.

This study further revealed that 4.5 percent of adolescent (refer to table 3) smokers in Ilala district reported that they smoked tobacco in order *to relax*. About 2.0 percent and 6.5 percent adolescent smokers reported that *solving problems* and *reducing frustration respectively* drive them to smoke cigarettes. Hence, it is possible that adolescent smokers commence smoking so as to get rid of problems or reduce frustration. In other words, adolescent smoked tobacco when they wanted to become calmer and less worried. Similar findings were found by Kiangi (1995), whereby 8.2 percent of adolescents, smoke tobacco because they wanted to feel relaxed. On the same lines, a study conducted among 1973 school children in Nigeria, Elegbeleye and Femi-Pearse (1976) reported relaxation being the motive for tobacco smoking. Interestingly, this study revealed that *being sent to light up cigarettes* was among the motives that drive adolescents to commence cigarette smoking. About 3.5 percent of adolescent smokers were found to belong in this category. This motive is hardly mentioned in previous studies possibly due to the fact that most of them were not conducted in traditional societies where adults encourage the habit of sending children to buy or to light up cigarettes. Kiangi (1995) found that nearly 31.8 percent of the adolescents reported to have been sent by their parents to buy tobacco and 41.8 percent having been asked to light a cigarette. Nevertheless, Kiangi (1995) did not mention whether *being asked to light up a cigarette* or being *sent to buy a tobacco product* are motives that drive adolescents to smoke tobacco. The custom of parents sending their children to collect or to buy various day-to-day requirements for their family is common in traditional societies (WHO, 2005). Expectations and adults' pride of getting assistance from their young people in traditional societies possibly encourage this custom, which in turn may tempt an adolescent to commence smoking tobacco. Hence this study suggests that proper education should be provided to the Tanzanian community about the disadvantages of involving children/adolescents in buying tobacco products. In addition, the government should prepare by-laws to restrict the buying or selling of tobacco products by children/adolescents

1.0 and 2.2 percent of adolescents (refer to table 3) reported to smoke tobacco as *a way of solving problems* and *a way of keeping busy,* respectively, which implies that these motives were not strong in encouraging secondary school adolescents in Ilala district to smoke. Similar findings were revealed by Kiangi, (1995) whereby 9.9 percent of adolescents reported smoking tobacco to solve problems and as a way of keeping busy. Differences in the results of the studies might be caused by the research methodology, such as sample size, area of the study, and demographic characteristics. Generally, it has been observed that experimentation is the foremost motive which drives adolescents to smoke tobacco although other motives like, a way of keeping busy, reducing frustration, a way of solving problems, feeling pleasure, relaxing, and being persuaded, were also revealed. Thus, this study supports the tenet that adolescence is a critical period during which young people, at a time of rapid physical and psychological development, begin to give meaningful shape to their private experiences of being an individual, and are willing and able to decide about their own actions (Santrock, 2005).

## Conclusion and Recommendation

This study found that the reasons for secondary school adolescents in Ilala district to smoke are determined by significant others and various motives. Special attention should be paid to significant others (e.g. closed friends and brother) and motives (e.g. experimentation, reduce frustration, feel pleasure, persuaded to smoke, relax and sent to light up a cigarette) since they are confirmed to be strong determinants of smoking among secondary school adolescents in Ilala district.With regards to controlling the role played by significant others in influencing secondary schools' adolescents in Ilala district to smoke tobacco, proper education, persuasion, motivation and facilitation need to be in place. Educational programs should be implemented to spread appropriate knowledge and skills for adolescents to resist pressure from significant others. Additionally, adolescents have to be motivated and empowered for behaviour change. At school level, proper guidance and counselling services and recreational activities should be introduced.

This is due to the fact that some secondary school adolescents in Ilala district view smoking tobacco as pleasurable, something that reduces frustration and helps a person to relax. This implies that adolescents experience various problems which seem to be very difficult for them and perceive tobacco smoking as a way to get relief. It is imperative for counsellors at the school level to render counselling services which can help adolescents to cope with stress which in turn would reduce the possibility of adolescent engaging in tobacco smoking. In addition, recreational activities such as sports should be introduced at school to enable students to be physically fit and also reduce stress. At the home level, parents and guardians should have good communication with adolescents so as to discover habits that may prove difficult to discover in a poor communication environment. Moreover, various efforts should be made to abolish the habit of adults sending their children to light up cigarettes. The efforts may include enacting laws or by-laws that will prohibit adolescents from being involved in activities associated with tobacco smoking. The need to prevent secondary school adolescents in Ilala district and elsewhere in URT from smoking is obvious. Comprehensive but cautious preventive activities should be developed and tested for their effectiveness. The quality of planning appears to be necessary for developing sound measures to prevent smoking. Three levels of intervention, namely; individual, community, and national are recommended.

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