Gender Characteristics of Secondary School Teachers Using Computers in and Around Kampala City of Uganda

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Abstract

This study investigated personal and classroom teaching characteristics of teachers using computers. The study was an evaluation of characteristics by gender using evidence from secondary schools in and around Kampala City of Uganda. Descriptive characteristics and associations between characteristics by gender; differences between gender characteristics; and prediction of gender of teacher using the characteristics were investigated. Cross-sectional data were collected using a self-administered questionnaire. Schools were identified using snowball sampling because of the nature of the study population. Respondents in each school were selected purposively through their head teachers. According to the study, male respondents were about twice as many as female respondents. Proportions of teachers according to the characteristics varied across gender. Associations between personal characteristics were gender-based. Associations between classroom teaching characteristics were similar across gender and included average number of students taught per stream and average number of streams taught in a week. Gender differences in classroom characteristics were found in teaching science subjects and teaching higher classes with male teachers scoring higher than their female counterparts. The study revealed gender difference in a computer with male teachers scoring higher than female teachers. Prediction of gender of a teacher was by teaching a science subject. Policy implications include the fact that the government should encourage more female students to study science subjects so as to effectively increase numbers of female science teachers; and to increase incentives for science teachers. School Management should encourage female teachers acquire personal computers and to teach science subjects in higher classes. Schools should also reduce teaching loads for teachers adopting and adapting ICT in teaching.

Keywords: Gender, Classroom Teaching characteristics, Personal characteristics, Correlations, Logit Regression, ANOVA

Introduction

Concerns related to gender of an individual have remained a debate among policy makers and researchers alike. One proof is global adoption of the 1979 International Convention on the Elimination of All Forms of Discrimination Against Women. Since then, countries have set up, policies to eliminate discrimination against women. Among scholars, studies focusing on gender have taken a diversity of approaches such as; discrimination (Zarar, Bukhsh and Khaskheli, 2017); equality (Durbin and Fleetwood, 2010); empowerment (Huis, Hansen, Otten and Lensink, 2017); and mainstreaming (Perrons, 2005). These studies reveal that gender issues have many paradigms like being cognitive, social-cultural-economic, managerial, political and technological. In teaching, similar paradigms exist as a way of characterising gender issues. For

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example, evidence by Akhtar (2012) suggests that gender difference starts in training colleges where majority of lower-class teachers are females.

One of the determinants of effective teaching in contemporary times is use of Information and Communication Technology (ICT). The ICT use movement in the first world is well developed (Anderson, Leithwood and Strauss, 2010; Long and Siemens, 2011). However, in developing countries like Uganda, its use is still in its infancy (Newby, Hite and Mugimu, 2012). That is why it is evident that there is scanty knowledge on characteristics of teachers who use ICT in developing countries. This study was conducted to contribute knowledge on personal and classroom teaching characteristics of teachers using ICT according to their gender. Evidence was from teachers in secondary schools of Uganda.

Over the years, Uganda has developed policies, which indirectly reduce gender difference among teachers. One of them is the Affirmative Action for female students awarded extra 1.5 points when being considered for public university education (Onsongo, 2009). Another is the Equal Opportunities Commission (The Equal Opportunities Commission Act, 2007 of Uganda) to ensure that there is no discrimination in employment due to one's personal characteristics. ICT concept in secondary education of Uganda is traceable from the 2003 policy by government. The policy opened opportunities for different stakeholders to support introduction of ICT in schools as reported by Farrell (2007). The main agencies (Farrell, 2007) are Non-governmental Organisations (NGOs), religious organisations, international donors, management of schools and the government. Farrell (2007) goes further to point out that ICT adoption is mainly in urban areas because the areas have reliable support services and the schools could afford ICT implementation costs more than those in rural areas.

Motivation

Adoption of ICT use in secondary schools of Uganda has been supported by a diversity of players since 2003 (Farrell, 2007). In the developed world, ICT has been part of tools for teaching for a long time (Anderson, Leithwood and Strauss, 2010; Long and Siemens, 2011). Such long time ICT use in the developed world has prompted a diversity of studies on characteristics of teachers using ICT even according to their gender (Akhtar, 2012). However, little is known about personal and classroom teaching characteristics of teachers who use ICT in developing countries like Uganda. Knowledge gap indicates a likelihood of making interventions to improve ICT use in teaching to be unsuitable due to wrong assumptions. This study was conducted to provide an initial understanding of characteristics based on gender of teachers. Evidence was from secondary schools in and around Kampala City because such schools have adopted and adapted ICT use in teaching more than rural areas.

Specific Objectives

a) To examine personal and classroom teaching characteristics of teachers using ICT by gender;
b) To analyse associations between teachers' characteristics by gender;
c) To examine differences in teachers' characteristics by gender; and
d) To predict gender of a teacher using their characteristics.

Literature Review

Gender Characteristics

Understanding gender uses a number of approaches and giving different interpretations (Akhtar, 2012). According to Isabella (2018), gender issues are visible, habitual and personal characteristics of people. The assertion could suggest that males are alike and females are alike. However, inconclusive positions on understanding gender issues exist. For example, Pekkarine (2012) found that female educational attainment was about to surpass that of the male society in most industrialized countries. Another study by Chiu, Hong and Chiu (2013) found that female students are more addicted to mobile phones than male students in colleges. In entrepreneurship Kargwell (2012), reveals that there exists similarities and differences between female and male entrepreneurs. Scholars like Sánchez, Carballo and Gutiérrez (2011) as well as Bridge, Hegarty and Porter (2010) analysed gender differences in terms of personal, socio-economic and cognitive attributes and they stated that these characteristics vary according to time and context. Bridge and colleagues (2010) categorised gender factors as enablers or barriers, while Pines, Lerner and Schwartz (2010) looked at them as aspects of opportunity drivers for individuals. However, these findings are challenged by Kargwell (2012) in a study on entrepreneurs in the Emirates who claims that gender issues are influenced by perceptions about the environment even when it tends to be fair to both males and females.

Evidence of gender differences in classroom teaching and use of ICT is limited but reveals interesting results. The study by Oktan and Kıvanç (2015) found that there is no gender difference in classroom management. Another study by Fomsi and Orduah (2017) found no significant difference between teachers in ICT use according to gender among primary schools in Nigeria. On the contrary, Throndsen and Turmo (2012) assert that teacher beliefs are gender specific where female teachers are more organised than male teachers in planning the teaching while male teachers are better in lesson delivery. Markauskaite (2006) had earlier found that male teachers worked more on computers specifically in ICT technical issues than female teachers. These findings confirm that in the teaching profession, gender issues in ICT use still attract academic debates.

Methodology

The objectives of the study were to get data from respondents about their personal and teaching characteristics of secondary school teachers using ICT in a specific area. Therefore, the study was an evaluation involving use of descriptive, quantitative and analytical designs. Cross-sectional data were used.

Population and Sample size

As the background of the study indicated (Farrell, 2007), secondary schools in Uganda have implemented ICT in teaching with different stakeholders as key supporters. Stakeholders include government programmes, NGOs, religious organisations, donors and by the schools themselves using internally generated incomes. Therefore, the population of teachers using ICT is hidden or cannot generate a sampling frame (Atkinson and Flint, 2001). Atkinson and Flint (2001) recommend that when the population is hidden, snowball sampling is the most suitable to explore existence of traits in such populations. Specifically, the sampling procedure is good to study behaviours or perceptions that are not generalisable (Salganik and Heckathorn, 2004). These benefits fit the purpose of this study. Linear snowball sampling was used to select 50 secondary schools. Within each school, purposive sampling of three target teachers was done

through head teachers (Browne, 2005). Therefore, the sample size was 150 respondents (see Heckathorn, 1997)

Study variables

Study variables were adapted from existing literature (Akhtar, 2012; Fomsi and Orduah, 2017). Variables for personal characteristics included gender, education level, age-range, owning a computer, has formal ICT training, years of service and years of service in current school. Classroom teaching characteristics included level of class taught, teaching Science or Art subject, number of streams taught and number of hours taught per week.

Data Collection and Analysis

Respondents were asked to complete self-administered questionnaires that were collected later on from the respondents. Data were cleaned, coded, captured and analysed with the help of Statistical Package for Social Sciences (SPSS) Version 15. Descriptive data were analysed as summarisations and means of the distributions. Associations of the characteristics were analysed using bivariate correlations. Analysis of Variance-(ANOVA) was used to reveal difference between characteristics according to gender at a 5 percent significance level (Cohen, 1988). Prediction of gender using the characteristics was by using binary regression (Yordanova and Davidkov, 2009; Moore, Wuensch, Hedges and Castellow, 1994) through binary dependent variable, Y, as:

$$ln(Y) = ln(ODDS) = a + b_1x_1 + b_2b_2 + \cdots \text{ OR } Y = ODDS = e^{(a+b_1x_1+b_2x_1+\cdots)}$$

Where:

- ✓ *ln* is the natural logarithm and Exp =2.71828…
- ✓ ***a*** is a constant
- ✓ b_1, b_2 …… are the slopes or the rate of change of each independent variables
- ✓ x_1, x_2 …… are the values of the characteristics or independent variables

From the equation, probability of the binary characteristics is given as

$$P(X) = \left(\frac{ODDS(X)}{1+ODDS(X)}\right)$$

Findings

Personal and classroom teaching characteristics of respondents by gender

A total of 150 teachers were selected to participate in the study, but 128 questionnaires were found usable after data cleaning. The usable questionnaires consisted of 44 (34%) from female respondents and 84(66%) from male respondents. Proportions of number of teachers by gender according to each characteristic varied as presented in the following details. The study revealed that among female respondents, 9.1 percent had a diploma, 84.1 percent had a first degree and 6.8 percent had a Master degree. Distribution of female respondents according to age showed that 43.2 percent were less than 30 years; 45.5 percent were in age range from 30 to 44 years; 9.1 percent were in age range of 45-54 years; and 2.3 percent were 55 years and above. From the study, of all female respondents, 43.2 percent owned computers and 56.8 percent did not own computers. Of all female respondents, those who had undergone ICT training were 80.5 percent and 19.5 percent had not got any ICT training. The study revealed that 83.7 percent of all female respondents had been working at their current schools for over a year and only 16.3 percent had worked in their current schools for less than a year, implying that majority had knowledge associated with the study.

The distribution of education levels among male respondents was found that 3.6 percent had a diploma, 90.4 percent had first degree and 6.0 percent had a Master degree. The study revealed that of all male respondents; 47.6 percent were less than 30 years of age; 46.4 percent were in age range of 30 to 44 years; 4.8 percent were in age range of 45 to 54 years; and 1.2 percent were 55 years and above. The study showed that 61.9 percent of male respondents owned computers and 38.1 percent did not own computers. Of all male respondents, those with ICT training were 79.5 percent and 20.5 percent did not have any formal training in ICT. Male respondents who had been working at their current schools for at least a year were 95.2 percent and 4.8 percent had worked in their current years for less than a year, suggesting that almost all teachers had knowledge associated with the study.

Classroom teaching characteristics of female respondents revealed that 6.8 percent were teaching at lower ordinary level, 13.6 percent at upper ordinary level and 79.5 percent at advanced level. A total of 83.7 percent of female respondents were teaching Arts subjects and 16.3 percent were teaching Science subjects. The distribution of number of streams taught by female teachers had Mean equals to 4 and Standard Deviation of 3. The distribution of number of lessons taught per week by female teachers had Mean equals to 18 and Standard Deviation of 8. The distribution of number of students taught per stream by female teachers had Mean equals to 56 with Standard Deviation of 22. The statistical information of the mean and standard deviation of the two later variables show a wide scatter of distribution.

Of all male respondents, 1.2 percent were teaching at lower ordinary level, 10.8 percent at upper ordinary level and 88.0 percent at advanced level. A total of 38.8 percent of all male respondents were teaching Arts subjects and 61.2 percent were teaching Science subjects. The distribution of number of streams taught by male respondents had Mean equals to 4 with Standard Deviation of 3. The distribution of number of lessons taught per week by male respondents had Mean equals to 27 with Standard Deviation of 7. The distribution of number of students taught per stream for male respondents had Mean quals to 60 with Standard Deviation of 24. The statistical distributions reveal that the number of students taught per steam and number of lessons taught per week by male respondents is less scattered than female respondents and had higher values.

Associations between teaching characteristics by gender

Analysis of binary associations with help of SPSS give correlation coefficients and when the values are significant, the output shows also significance level only. Considering personal characteristics, the study revealed that of all female respondents, positive and significant associations exist between years of service and years at current school ($r = 0.375^*$, $p < 0.05$); years of service in current school and age of respondent (0.386^{**}, $p < 0.01$); and age of respondent and number of lessons taught per week ($r = 0.416^{**}$, $p < 0.01$). The study revealed a significant and negative association between level of class taught by female teacher and respondent being a science teacher ($r = -0.329^*$, $p < 0.05$).

Data of male respondents showed positive and significant associations between: teaching level and number of years in service ($r = 0.289^{**}$, $p < 0.01$); teaching level and number of streams taught ($r = 0.314^{**}$, $p < 0.01$); age of respondent and teaching level ($r = 0.245^*$, $p < 0.05$); age of respondent and number of streams taught ($r = 0.259^*$, $p < 0.05$); and number of students taught as well as number of lessons taught per week ($r = 0.247^*$, $p < 0.05$). Significant and negative associations were found between owning a computer and education level of male teacher (r = -

.221*, p < 0.05); and owning a computer and teaching a Science subject (r = -.285*, p < 0.05). Overall, all significant personal associations revealed to be gender-dependent, suggesting a concept of employment factors with male teachers exhibiting more associative characteristics than female teachers.

Considering classroom teaching characteristics, there was a significant and positive association between number of students taught and number of streams taught across gender. For female respondents, the correlation was r =0.381*, p <0.05 and for male respondents the correlation was r= 0.291*, p < 0.05.

Differences in teachers' characteristics by gender

Significant gender differences in teachers' characteristics included classroom teaching characteristics and personal characteristics. Classroom teaching characteristics were as follows: teaching level {F (1, 123) =4.324 at p=0.040)} and teaching a Science subject {F (1, 120) =26.466 at p=0.000)} with male teachers scoring higher than female teachers. The significant personal characteristics were the following: a teacher owning a computer {F(1, 124) = 4.186 at p=0.043)} with male teachers scoring higher than their female counterparts.

Prediction of gender by teacher characteristics

A Binary Logit regression of all characteristics revealed that teaching a Science subject (B = 3.133; Wald Statistics = 14.647; p=0.000; and Exp (B) = 22.953) was the only predictor of gender of a respondent. The general equation:

$Y = ODDS = e^{(a+b_1x_1+b_2x_1+\cdots_n)}$, becomes

$$Y = ODDS(X) = e^{b_1x_1} = e^{22.953x_1}$$

According to this study, female respondents x= 0 and male respondents x =1.
The ODDS (Female) = 1 and ODDS (male) = 22.953. So, when a respondent is selected at random, the likelihood of getting a science male teacher is about 23 times to that of getting a female science teacher.

$$P(\text{getting a science teacher among female repondents}) = \left(\frac{1}{1+1}\right) = 50\%$$

$$P(\text{getting a science teacher among male repondents}) = \left(\frac{22.953}{1+22.953}\right) = 95.8\%$$

The model without classification of respondents by gender fitted the data with accuracy of 73.9 percent. After classification, the precision increased to 76.5 percent, suggesting that the classification gives a highly accurate estimate model. The classification model precision being well above 50 percent, it is a good fit (Contandriopoulos and Brousselle, 2012). Teaching a science subject contributed 41.1 percent in prediction of gender of a respondent.

Discussion

The study was an evaluation of characteristics of teachers using ICT in secondary schools with hidden population. This necessitated use of snowball sampling procedure. Findings that male teachers selected by their head teachers to participate in the study were twice as many as female teachers generate some knowledge. It is likely that more male teachers use ICT more

competently than female teachers. Another likely factor is that there are more male teachers than female teachers in secondary schools. Akhtar (2012) implicitly explains this by the assertion that female teachers are mainly in lower education levels. The finding is also partly supported by Markauskaite (2006) who reveals that male teachers have much more exploratory utilisation of ICT than their female counterparts.

Personal and classroom teaching characteristics according to gender

Age of respondents by gender revealed that a bigger proportion of female teachers using ICT, almost twice as many as male teachers, were above 44 years.–However, majority of female teachers using ICT teach Arts subjects. Old age, teaching Arts subjects and using ICT are integrated characteristics among female teachers. One could aver that because most female teachers teach Arts subjects, they take many years to be competent users of ICT. This integrated characteristic could need further investigation. It is interesting that while teachers of either gender indicated that they have almost equal ICT training, the proportion of male teachers who own computers is almost double as that of female teachers. The finding suggests that male teachers are likely to utilise ICT training for personal development or academic investigative searching more than their female counter-parts as partly asserted by Markauskaite (2006).

According to the study, the average number of students taught per stream was higher than the average national value of 50 (Kasirye, 2009) across gender. A number of factors contribute to this. One is that most schools in urban areas have better teachers, are well-facilitated and managed, have better infrastructure and thus, they offer better education than rural-based schools, a pattern, which attracts many students to such schools. Secondly, introduction of universal secondary education in Uganda has had an impact of increasing number of students per stream in secondary education. Evidence on average number of lessons taught by gender revealed that female teachers have average teaching loads below the recommended average of 24 (see also Kasirye, 2009; Molyneaux, 2011), while average teaching loads among male teachers was above average. More studies could provide better understanding of this difference. The study shows that on average, the number of streams taught was the same across gender though an average of four streams per teacher with large numbers of students per stream indicates reduced efficiency in teacher and ICT use.

Associations among characteristics by gender

Associations of personal characteristics of teachers by gender were gender-dependent. Among female teachers, they included staying long in a school and number of years of service and then staying long in one school and age of respondent. Female teachers may have a tendency to settle in particular schools unless they are possibly promoted or encounter a strong challenge. Older female teachers were associated with high teaching load, which is an interesting relationship. It is likely that their long service equips them with experience to be allocated bigger load at reward. Female teachers were negatively associated with teaching higher Science classes. This is partly evidenced by Throndsen and Turmo (2012).

Among male teachers, there were associations of teaching higher classes and long service in the profession. This could still be attributed to long serving and long service that mean getting older. The negative association between a teacher's higher education qualification and owning a computer is interesting. However, the study showed that most male respondents were Science teachers and such teachers could have easier access to ICT in schools more so when they are

appointed to be in-charge of such facilities. This possibility could also explain the significant and negative association between owning a computer and teaching a Science subject. Significant associations between classroom teaching characteristics that were across gender were between number of students taught and number of streams taught. These characteristics are set at school level and their relationships are also pointed out by Mabekoje (2009) as well as Fomsi and Orduah (2017).

Differences in teaching characteristics by gender

Significant difference in classroom teaching characteristics by gender were levels of classes taught and owning a computer. One could argue that these differences where male respondents scored higher reflect characteristics in personal development of individuals according to gender as partly confirmed by Akhtar (2012).

Prediction of gender of a teacher

Gender of a teacher using ICT was predicted by teaching a Science subject with male teachers having higher scores than female teachers. This suggests that Science is still a male dominated subject.

Conclusion

This study confirms that the theoretical debate on gender issues is still active. This is revealed by the empirical evidence of varying characteristics of secondary school teachers using ICT in the selected area. The study investigated personal and classroom teaching characteristics of secondary school teachers using ICT by gender as an evaluation. Evidence was from Kampala City and its surrounding areas in Uganda. Another aspect of the study was associations between characteristics by gender, differences in characteristics by gender and prediction of gender by the characteristics. According to the study, proportions of teachers in each characteristic varied by gender. Association between personal characteristics were gender-based and most were positively correlated with gender revealed among the personal characteristics, they were gender-based and mostly positive. Associations of classroom teaching characteristics were across gender and they were all positive. Differences in characteristics of teachers by gender were in the class levels taught, teaching Science subjects and owning a computer. Teaching a Science subject was the only characteristic predicting gender of a teacher.

Policy and Management Implications

The study reveals possible policy interventions in teachers' characteristics using ICT by gender. One intervention is for government to encourage more female students to study Science subjects. This could increase chances for having female teachers. The government should improve enhancement of Science teachers to encourage them remain in the teaching profession. Within schools, female teachers should be encouraged to own computers to enhance their ICT use. Female teachers should be encouraged to teach at higher levels and more so, teaching Science subjects. Lastly, schools should review teaching loads and numbers of students taught per stream for teachers using ICT to give them more time for integrating ICT in teaching as suggested by Wayman (2005) as well as Mandinach and colleagues (2005).

Areas for Further Research

This study was an initiative in understating characteristics of secondary school teachers using ICT as an evaluative research. Evidence was from an urban setting in Uganda and cross-sectional

data were used. More studies could be conducted using mixed method approaches, using evidence from other geographical areas or as comparative studies between urban and rural settings.

References

Akhtar, Z. (2012). "Gender Inequality in Teacher Training Programs." *International Journal of Business and Social Science, 3(10)*

Anderson, S., Leithwood, K. and Strauss, T. (2010). "Leading Data Use in Schools: Organizational Conditions and Practices at the School and District Levels." *Leadership and Policy in Schools*, 9(3): 292-327

Atkinson, R. and Flint, J. (2001) "Accessing Hidden and Hard-to-reach Populations: Snowball Research Strategies." Social Research Update, 33(1). Available, http://sru.soc.surrey.ac.uk/SRU33.pdf.

Bridge, S., Hegarty, C. and Porter, S. (2010). "Rediscovering Enterprise: Developing Appropriate University Entrepreneurship Education." *Education + Training*, 52(8/9): 722 – 734

Browne, K. (2005) "Snowball sampling: Using Social Networks to research non-heterosexual women." International *Journal of Social Research Methodology*,8(1): 47-60.

Chiu, S., Hong, F. and Chiu, S. (2013). "An Analysis on the Correlation and Gender Difference between College Students' Internet Addiction and Mobile Phone Addiction in Taiwan." *ISRN Addiction.* Available: https://doi.org/10.1155/2013/360607.

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd Ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.

Contandriopoulos, D. and Brousselle, A. (2012). "Evaluation models and evaluation use." *Evaluation, 18*(1): 61-77.

Durbin, D. and Fleetwood, S. (2010). "Gender inequality in employment: Editors' introduction. Equality, Diversity and Inclusion." *An International Journal*, 29(3): 221-238

Akhtar, Z. (2012). "Gender Inequality in Teacher Training Programs." *International Journal of Business and Social Science, 3(10) [Special Issue – May 2012]*

*Farrell, G. (*2007). *ICT in Education in Uganda. Survey of ICT and Education in Africa*: Uganda Country Report. No. 45680

Fomsi, E. and Orduah, S. (2017). "Gender Differences in the utilissation of ICT among Teachers in Model Primary Schools in Rivers State, Nigeria." *British Journal of Education*, l5(4): 88-94

Heckathorn, D. (1997). "Respondent-Driven Sampling: A new Approach to the Study of Hidden Populations." *Social Problems*, 44(2)

Huis, M. A., Hansen, N., Otten, S., and Lensink, R. (2017). "A Three-Dimensional Model of Women's Empowerment: Implications in the Field of Microfinance and Future Directions." *Frontiers in Psychology*, *8:*1678. Available: doi:10.3389/fpsyg.2017.01678

Kargwell. S. (2012). "A Comparative Study on Gender and Entrepreneurship Development: Still a Male's World within UAE Cultural Context." *International Journal of Business and Social Science*. 3 (6): 44 – 55

Kasirye, I. (2009). *Determinants of learning achievement in Uganda.* Paper presented at the annual conference of the Centre for the Study of African Economies, Oxford, 2009. February 2009.

Long, P. and Siemens, G. (2011*).* "Penetrating the Fog: Analytics in Learning and Education." *EDUCAUSE Review,*46, (5). Available: http://net.educause.edu/ir/library/pdf/ELI3026.pdf

Mabekoje, S. (2009). "Gender Differences in Job Satisfaction among Secondary School Teachers." *African Journal of Research in Personnel and Counselling Psychology* 1 (1): 99-108

Markauskaite, L. (2006). "Gender issues in preservice teachers' training: CT literacy and online learning." *Australasian Journal of Educational Technology*, 22(1): 1-20

Molyneaux, K. (2011). "Uganda's Universal Secondary Education Policy and its Effect on 'Empowered' Women: How reduced income and moonlighting activities differentially impact male and female teachers." *Research in Comparative and International Education,* 6(1): 62-78

Moore, C., Wuensch, K., Hedges, R. and Castellow, W., (1994). "The Effects of Physical Attractiveness and Social Desirability on Judgments Regarding a Sexual Harassment Case." *Journal of Social Behavior and Personality*, 9: 715-730.

Newby, L.; Hite, J. and Mugimu, C. (2012). "Technology and education: ICT in Ugandan secondary schools." *Education and Information Technologies*. Available: doi: 10.1007/s10639_011_9180_x

Oktan, D. and Kıvanç Ç. (2015). "The impact of teachers' gender differences on classroom management." *International Online Journal of Education and Teaching, 2*(4): 239-247

Onsongo, J. (2009). "Affirmative action, gender equity and university admissions – Kenya, Uganda and Tanzania." *London Review of Education*, 7(1): 71–81

Pekkarine, T. (2012). *Gender Differences in Education. IZA Discussion Paper No. 6390 February 2012. Paper prepared for the Nordic Economic Policy* Review Conference in Oslo, 24 Oct. 2011.

Perrons, D. (2005). "Gender Mainstreaming and Gender Equality in the New (Market) Economy: An Analysis of Contradictions." *Social Politics: International Studies in Gender, State and Society*, 12(3):389–411.

Pines, A., Lerner, M. and Schwartz, D. (2010). "Gender differences in entrepreneurship Equality, diversity and inclusion in times of global crisis: Equality, Diversity and Inclusion." *An International Journal,* 29 (2): 186-198

Salganik, M. and Heckathorn, D. (2004). "Sampling and Estimation in Hidden Populations Using Respondent-Driven Sampling." *Sociological Methodology*, 34: 193-239

Sánchez, J.C., Carballo, T., and Gutiérrez, A. (2011). "The entrepreneur from a cognitive orientation." *Psicothema,* 23(3): 433-438.

Taneja, S., Pryor, M. and Oyler, J. (2012). "Empowerment and Gender Equality: The Retention and Promotion of Women in the Workforce." *Journal of Business Diversity*, 12(3): 43-53

Throndsen, I. and Turmo, C. (2012). "Gender differences in teachers' Beliefs and primary school Children's achievement in Mathematics." *Problems of education in the 21st century*, 39: 159 -170

Yordanova, D. and Davidkov, T., (2009). "Similarities and differences between Female and Male Entrepreneurs in a transition context: Evidence from Bulgaria." *Journal of Applied Economic Sciences,* IV(4): 571 – 582.

Zarar R, Bukhsh, M. and Khaskheli, W. (2017) "Causes and Consequences of Gender Discrimination against Women in Quetta City." *Arts and Social Sciences Journal*, 8(3).