



Effect of Mutual Aid Group on Mathematics Self-Efficacy Belief among Senior Secondary School Students in Lagos State

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Abstract

The study examined the effect of mutual aid groups on mathematics self-efficacy belief among senior secondary school students. One research question and one null hypothesis guided the study. The design of the study was a quasi-experimental non-equivalent pretest-posttest research design involving one experimental and one control group. The sample for the study comprised 207 (89 male and 118 female) secondary school two students drawn from six intact classes in three co-educational secondary schools in Mainland Local Educational District IV Sabo, Lagos State. The instrument used for the study is Mathematics Self-Efficacy Scales (MSES). Also, an instructional package: Mutual Aid Group Interactive Process (MAGIP) was developed by the researcher. Mean and standard deviations were used to answer the research questions, while analysis of covariance was used to test the null hypothesis. Major findings of the study reveal that exposing students to mutual aid groups had an enhanced effect on their mathematics self-efficacy belief. Based on these findings, conclusions were drawn and educational implications were discussed. Major recommendations made were one of which is that students should be exposed to mutual aid interactive process.

Keywords: Mutual Aid, Mathematics, Self-Efficacy Belief, Secondary Education, Lagos

Introduction

In today's technology-driven society, greater demands have been placed on individuals to interpret and use mathematics to make sense of information in complex situations. As a result, the teaching and learning of mathematics become the nation's top priority (National Open University of Nigeria, 2006). Awokoya and Fafunwa, (as cited in Maliki, Ngban, & Ibu, 2009), agreed that people live in a world where science and technology have become an integral part of the world culture. For any nation to be relevant, therefore, it must not overlook the importance of mathematics in its educational system.

Mathematics is crucial not only for success in school, but in being an informed citizen, being productive in one's chosen career, and in personal fulfilment. Bulter and Wren (as cited by Ezeahurukwe, 2010), assert that mathematics can contribute to the realization of the general aims of education which among others include the development of effective critical thinking and competence in the basic skills necessary for dealing with numbers and forms, as it is indispensable in all commercial transactions, keeping statistical records and for researches. Another related study



(Igbokwe, 2003), highlights the intricate link of mathematics to science and technology. Every new mathematics problem a person tackles requires one to expand one's ability to dissect a problem and solve each part (Williams, 2004). Again, taking time to work through mathematics problems and arriving at the correct answer teaches children persistence and perseverance. Graeber and Weisman (as cited in Ajayi and Muriana, 2011), agree that mathematics helps the individual to understand the individual's environment and to give an accurate account of the physical phenomena around the individual.

Nigeria as a nation is gradually marching towards scientific and technological advancement. The nation's educational system is currently tailored towards equipping school children with mathematical, scientific, technological and communicative skills pertinent to scientific inquiry and technological developments. As a result of this, Mathematics is made a compulsory subject in the curriculum of the primary and secondary school levels of her educational system (Federal Republic of Nigeria, 2004). However, judging from the achievement level of students in mathematics examinations at the senior school certificate examinations, it may be difficult to achieve the dream of laying a solid foundation for scientific and technological development in the country. Many Nigerian students develop a negative attitude to the subject, fear it and perform poorly in mathematics examinations (Abdulahi & Onasanya, 2010; Igbokwe, 2003; Akin, 2010).

A close analysis of the students' achievement in senior secondary school mathematics examination shows clearly the deteriorating state of secondary school students' achievement in mathematics. A report from the statistics department of West African Examinations Council (WAEC), Jibowu Lagos has it that out of 1,249,028 candidates that sat for mathematics examination in 2007, only 584,024 (46.76%) had credit passes. Similarly, in 2008, 2009, 2010, and 2011 similar results were recorded as only 57.28%, 47.04%, 41.95% and 40.35% obtained credit passes in mathematics respectively. On the other hand, 24.24%, 17.24%, 23.41%, 27.20%, 27.93%, 50.58, 54.19 and 61.97 recorded failure in 2007, 2008, 2009, 2010, 2011, 2012, 2013 and 2014 respectively (Statistic Department WAEC, 2015).

Various reasons have been advanced for this recurrent and dismal performance in the school subject. These include the parent factor (Ajayi & Muriana, 2011), teacher factor (Abdullahi and Onasanaya, 2010) and student factor (Ezeahurukwe, 2010) as influencing students' achievement in mathematics. Students' factors could be in the area of poor study habits, lack of interest, achievement orientation and self-efficacy belief. Bandura (1993) social cognitive theory postulates that perceived self-efficacy affects an individual in all aspects of life, including educational experiences. Beliefs about one's competence to successfully perform a task can affect motivation, interest and achievement. The focus is on how students think about themselves, their tasks and their performance.

Both Federal and State governments as well as some corporate organizations recognizing the fundamental role of mathematics in economic development have established different programmes to improve students' cognitive and affective outcomes in mathematics. The Federal Government established the National Mathematics Centre (NMC) in 1989 and the Mathematics Empowerment Project at Akure in 2007 to develop, deploy appropriate initiatives and resources of international standing, to rekindle and sustain interest in the study of mathematics and mathematical sciences at all levels. Over the years the centres have made attempts to remedy the failure rate in the West



African Senior Secondary Certificate Examination, National Examination Council (NECO) and Joint Admission and Matriculation Examination (JAME).

Other corporate organizations such as Promasidors Nigeria limited (makers of cowbell milk) and University Press, Plc annually have programmes for secondary school students aimed at reawakening secondary school students' interest in mathematics. Examples of such programmes include the 2008 and 2009 Cowbell National Secondary School Mathematics Competition, and the 2011 University Press workshop on "effective teaching of mathematics in which the researcher was one of the participants. The media is not left out in this struggle of making the learning of mathematics easy and meaningful. The electronic media such as the Nigerian Television Authority (NTA) channel 10, Lagos, has a programme called "work it out" which is aired every Saturday for the acquisition of mathematical skills. Some print media such as Punch Newspaper have educational columns for mathematics learning. Despite these efforts, mathematics achievement at all levels of education in Nigeria has not improved to a satisfactory level. This consistency poor achievement in mathematics could be a result of irrational beliefs students pick from the environment which are interpreted in the mind as the right beliefs. Beliefs about one's competence to successfully perform a task can affect motivation, interest and achievement (Bandura, 1996). The higher the perceived efficacy, the higher the goal aspirations people adopt and the firmer their commitment to achieving those goals. Self-efficacy beliefs are one's beliefs that one can succeed in a specific task. Bandura (1997), describes self-efficacy as people's judgment of their capabilities to organize and execute a course of action required to attain a designated type of performance. Self-efficacy is a person's belief in what the person can do. In this study, self-efficacy can be defined as the beliefs individuals have in their ability to get a task completed.

Suffice it that several efforts are being made to arrest the problem of students' poor achievement in mathematics especially due to low self-efficacy. For some individuals, the problem of mathematics achievement is of such magnitude that professional help is required. Such help according to Ekeh and Obi (2012), could be in the form of providing the students with information about appropriate problem-solving strategies and helping them stay away from self-preoccupied worries and negative self-talk. This may be particularly helpful to the low self-efficacy students. This modification of distorted thoughts and providing appropriate problem-solving strategies concerning mathematics could be achieved through mutual aid group. This is what this study set out to investigate.

Good knowledge of mathematics for students in secondary school is critical not only to earn them the opportunity for admission into higher institutions but also to make them individuals who will be functional in the society. Yet there have been a consistent poor achievement and a large failure rate by senior secondary school students in mathematics examinations. Some researchers have attributed this poor achievement to factors such as students' perception of mathematics as a difficult subject, inappropriate teaching strategies, poor study habits, teachers' incompetence, and poor mathematics self-efficacy belief of students. Evidence from the developed world suggests that mutual aid group has the potential for helping to correct students' negative orientation about mathematics and promote their self-efficacy belief. Unfortunately, the use of mutual aid group in changing students' negative orientation about mathematics and promoting their self-efficacy belief appears not to have received comprehensive attention in mathematics. More so there is a dearth of literature on the use of mutual aid group as intervention strategy in research. The problem of this study, therefore, posed as a



question is “what are the effects of mutual aid groups on the mathematics self-efficacy belief of secondary school students in Lagos? To guide to the study, the research question follows with a hypothesis that: There is no significant difference in the effectiveness of mutual aid on students’ mathematics self -efficacy belief in post -test mean scores.

Literature Review

In school, the beliefs that students develop about their academic capabilities help determine what they do with the knowledge and skills they have learned (Putwain & Best, 2011). Mathematics self-efficacy is an individual’s belief in his ability to solve mathematics problems. People with high self-efficacy beliefs related to specific tasks show greater willingness to be engaged in the task, persist longer in the face of difficulties, use a variety of problem-solving strategies and hence have a higher likelihood of success with the task. According to (Sahiod, 2011), students with a strong sense of efficacy are more likely to challenge themselves with difficult tasks and be intrinsically motivated. These students will put forth a high degree of effort to meet their commitments, and attribute failure to things which are in their control, rather than blaming external factors. Highly self-efficacious students also recover quickly from setbacks, and ultimately are likely to achieve their personal goals. Students with low self-efficacy, on the other hand, believe they cannot be successful and thus are less likely to make a concerted, extended effort and may consider challenging tasks as threats that are to be avoided. Thus, students with low self-efficacy have low aspirations which may result in disappointing academic performances becoming part of a self-fulfilling feedback cycle. Self-efficacy belief is therefore a major ingredient in a person’s desire to learn. When an individual loses self-efficacy, fear or anxiety is created in such an individual, which could result in low achievement orientation.

Students are reluctant to engage in activities they believe will lead to negative outcomes. This may explain why some students perform poorly in mathematics examinations since they believe that they cannot make good grades. The fact is that for these students to regain their confidence and change their negative thoughts and irrational beliefs to positive and rational ones something needs to be done. It, therefore, becomes imperative to find out if the application of mutual aid group would enhance the self-efficacy belief of students. Peer and McClendon in Cicchetti (2007) observe that nobody exists aside from others, and no social interaction is possible without others. Students need each other in varying degrees, to work on certain common problems. Schwartz (cited in Cicchetti 2007) envisioned the group as an enterprise in mutual aid, an alliance of individuals.

The concept of mutual aid was first elaborated by Kropotkin, in 1903 (cited in Cicchetti, 2007), Kropotkin, one of the most important evolutionary theorists and socio-biologists of his time argued that mutual aid as exemplified in efforts at cooperation in the face of common environmental threats was a significant factor in the survival of species. Mutual Aid Group according to Borkman and Gitterman (as cited in Cicchetti, 2007), is an exchange of help where the group member is both the provider as well as the recipient of help in the service of achieving common group and individual goals. Mutual aid groups are composed of members who share a common condition, situation, heritage, symptom, or experience. They are largely self-governing and self-regulating. Mutual aid groups emphasize self-reliance and generally offer a face-to-face or phone-to-phone fellowship network, available and accessible without charge (Gitterman & Shulman, 1994).



Mutual aid groups assume various forms, from the highly structured daily meeting format of programmes such as Alcoholics Anonymous to the more informal gatherings of friends and co-workers. Among other variables, mutual aid groups differ according to size, longevity structure, technology, level of development, purported goals, public image, and relationships with other mutual aid groups and community services systems. The form of mutual aid groups is limited only by the needs and ingenuity of their members (Borkman, 1990). In this study, a mutual aid group is a group of people with a potential for mutual understanding and empathy which help build trust, openness and a feeling of belonging, which in turn, enhances coping, problem-solving and self-empowerment. What it infers is that it is a system where people with similar experiences come together with their peers to help each other to manage, overcome issues or to build a network of support.

The classroom group has the potential to become a mutual aid system. Classroom interaction promotes a sense of connectedness among class members. Cohen and Graybeal (2007) noted that mutual aid can help people to gain a sense of personal, interpersonal, and environmental control over their lives. They stated that one of the goals of a mutual aid group is to encourage the collective resourcefulness and creativity of the group and minimize the need for professional intervention. This requires the group worker to share power with group members so that the helping process is collaborative.

Steinberg (2010) asserted that mutual aid is holistic and strengths driven, and has exceptional goodness of it with anti-pressure practice. It is a process in which power sharing and the experience, wisdom, and knowledge of participants are central – as opposed to processes that rely exclusively on professional expertise and knowledge. The five basic elements in mutual aid group learning are: (a) positive interdependence (students see the importance of working as a team and realize that they are responsible for contributing to the group's effort.) (b) face-to-face interaction (involves students working in environmental situations that promote eye contact and social space so that students can engage in discussions). (c) Individual accountability (Suggests that each person is responsible to the group and must be a contributing member, not someone who let others do all of the work). (d) Group behaviour (refers to those interpersonal, social and collaborative skills needed to work with others successfully. Finally, (e) Group processing (the time after the team task is finished then team members analyze their work and their group's abilities to work collaboratively.) while the treatment groups made use of the mutual aid group interactive process, the control group made use of conventional lesson note plan (the traditional way of teaching mathematics).

Methodology

Design of the Study: The design of this study was a quasi-experimental non-equivalent pretest-posttest control group design. The experimental group received mutual aid group intervention training programme.

Area of the Study: The area of this study is Mainland Local Educational District Lagos. It was chosen because evidence has revealed that the students' achievements in the West Africa School Certificate Examination have been declining in the area (Education District IV Sabo Yaba, School Administration Department Lagos 2021).



The population of the Study: The population of this study comprised all the 2014/2015 co-educational senior secondary class two (SSII) students numbering 2,189 (1334 males and 855 females) from 7 co-educational Senior Secondary Schools in Mainland Educational District of Lagos State (Schools Administration Department Education District IV Sabo, Yaba, Lagos).

Sample and Sampling Technique: The sample for the study comprised 207 (89 males and 118 females) senior secondary school two students drawn from six intact classes in three co-educational secondary schools in mainland Local Educational District IV Sabo. The researcher purposively sampled mainland local educational districts from the three educational districts in district IV because of high declining students' mathematics achievement in the West African Certificate Examination using the stage sampling technique. The researcher selected three schools from the 7 co-educational secondary schools. Co-educational schools were chosen to take care of gender factors. These schools have at least not less than two classes of senior secondary school class two students'. The random sampling techniques were employed in selecting six intact classes from these three co-educational schools. These three selected schools were randomly assigned to treatment and control respectively through simple balloting.

Instruments for Data Collection: Mathematics self-efficacy Rating Scale (MSERS) - The mathematics self-efficacy rating scale was developed by the researcher to help determine the students' level of self-efficacy belief in performing some academic tasks (mathematics problem solving) the questionnaire consists of 30 item questions drawn from reviewed literature. The instrument was designed to address specific feelings toward mathematics learning and problem-solving. The instrument is of two sections. Section A sought the personal information of the respondents while section B sought information relating to students' personal feelings and self-efficacy beliefs in mathematics learning and problem-solving. A 4 point rating scale of Strongly Agree (SA-4), Agree (A-3), Disagree (D-2) and Strongly Disagree (SD-1) is employed. The students are to indicate their degree of self-efficacy belief by ticking a number from 1 to 4 against any of the above-stated options of response. The mathematics Self-efficacy rating scale was face validated by 2 experts. The researcher used these experts' comments and suggestions to improve the instruments by removing some items of the instruments and retaining some with modifications.

To determine the internal consistency reliability of the instrument, a trial test was conducted using 30 students drawn from senior secondary school II outside the school of study. Cronbach Alpha method was used to measure the internal consistency coefficient of the Mathematics Self-Efficacy Rating Scale (MSERS). The reliability of the mathematics self-efficacy rating scale was 0.89.

Mutual Aid Group Interactive Process (MAGIP) as a training programme was developed by the researcher through reviewed literature. The intervention programme was developed to teach the students mathematics by applying mutual aid group strategies in the lesson plan. The intervention is intended to aid students to achieve a paradigm shift in ideology, attitude and social expectations as they affect students' mathematics and capability in their school work. The mutual aid strategies that were employed include data sharing, dialectic process, mutual support, individual problem solving and group processing.

Method of Data Analysis: The data collected by administrating the pretest- post-test instruments were analyzed in line with the research question and hypothesis. Descriptive statistics such as mean



and standard deviation were used in answering the research question. Analysis of covariance (ANCOVA) was used to test the hypothesis at a 0.05 level of significance.

Results

What is the effect of mutual aid group on students' mathematics self-efficacy belief?

Table 1. The Mean Score and Standard Deviation of the Students' Pre-test post-test Scores in mathematics self-efficacy belief.

Experimental condition (source of variation)		Pre-test	Post-test	Pre-test-post-test mean gain scores
TMI(Cognitive Restructuring)	Mean	1.9740	2.5102	0.54
	N	77	77A	
TMII (mutual aid group)	Mean	2.0000	2.6671	0.66
	N	64	64	
	Std. Deviation	.56344	.45745	
Control	Mean	1.8636	1.9091	0.45
	N	66	66	
	Std. Deviation	.55154	.57452	

The table shows that students exposed to the Mutual Aid Group strategy had a pre-test mean score of 2.0000 with a standard deviation of .563 in mathematics self-efficacy and a post-test mean score of 2.6671 with a standard deviation of .467 their mean gain score was 0.66. The pre-test mean score for the control group was 1.8636 with and standard deviation of .55154 whereas their post-test mean score was 1.9091 with and standard deviation of .57452. The mean gain score of those in the control group was 0.45. From the above, it can be deduced that students exposed to the mutual aid group benefited from the strategies and manifested enhanced mathematics self-efficacy belief as against their counterparts in the control group.

This effect of the mutual aid group on the mean score of students' mathematics self-efficacy belief was further tested using the corresponding hypothesis.

H01: there is no significant difference in the effectiveness of the mutual aid group on students' mathematics self-efficacy belief in post-test mean scores.



Table 2: Summary of the one-way Analysis of Covariance for mathematics self-efficacy belief of the students' post-test for interventions (MAG) and control groups.

Source	Sum of squares	Df	Mean square	Cal F	Critical F	Decision at 0.05 level
Corrected model	22.835 ^a	6	3.806	13.655	.000	
Intercept	64.548	1	64.548	231.597	.000	
Pre-self efficacy	1.281	1	1.281	4.596	.033	
Treatment	19.950	2	9.975	35.790	.000	Sig
Error	55.742	200	.279			
Total	1238.388	207				
Corrected total	78.577	206				

a. R squared = .291 (adjusted R Squared = .269)

The data above indicates that treatments as a factor in the study had a significant difference in the self-efficacy belief of students in mathematics. This is because the calculated f-value of 35.8 in respect of treatment as the main effect is shown to be significant at a .000 level of significance and at a 0.05 level of probability. $F(1,200) = 35.8, p=000$. This also means that the null hypothesis of no significant difference in the mean scores of those in the treatment and control group was rejected, as there was a significant difference between the treatment group and the control group. The R-Squared of .291, further suggested that 29% of the total variance on the dependent measure was contributed by treatment using mutual aid group (MAG). This evidence shows that MAG was effective in enhancing the students' mathematics self-efficacy belief as compared to those in the control group that was not exposed to it.

Discussion of Results

The result of this study revealed that mutual aid had a significant effect on the mathematics self-efficacy belief of students. The students who were exposed to the mutual aid strategy manifested higher mathematics self-efficacy than their mates who used the conventional method. This finding tallies with that of Helgeson and Gottlies (2003) who indicated that a group of people with common concerns and potentials for mutual understanding and empathy helps build trust, openness and a feeling of belonging.

This study collaborates with the findings of Cohen and Graybeal (2007) which indicated that mutual aid helped people to gain a sense of personal, interpersonal and environmental control over their lives. The acquisition of mutual aid strategy encourages the students to set high goals and commit more personal efforts to achieve such goals which resulted in increased mathematics self-efficacy in the student.

Conclusion

Instructions in mutual aid group programmes enhanced the mathematics self-efficacy belief of students. The findings suggest the need for students to be equipped with relevant skills in the use of



mutual aid group interactive process in order to facilitate their learning of mathematics and every other subject.

Recommendation

Students should be exposed to mutual aid group strategies. To achieve this, the teachers should explain, demonstrate and model the strategies to the students. They should also monitor the students' use of the strategies to provide immediate feedback.

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Gender and Information Societies: Challenges and Opportunities for Women Participation in Democracy

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Abstract

Women equality with men has taken global dimension in all aspects of life, especially in the political participation of women. Equal voting right in election represents country's initiative to establish equality among men and women in democracy. But some traditional and current policy have not given women equal opportunities like men to participate in political affairs. A number of constraints affect women participation in politics and decision making. This paper aims to explore issues and challenges faces by women in political participation. The paper also highlights the role of Information and Communication Technologies (ICT) in developing information societies logical capacities as an integral dimension of full social, economic and political citizenship that emphasis gender equality and equal chances for all.

Keywords: Gender Inequality, Equal voting right, Women participation in democracy

Introduction

The world today is in information era, inequalities of all kinds including those related to gender, are at the top of political agenda for change. The new integrated social sphere of the Internet and the transformations it promises have highlighted the longstanding implications of all kinds of technological divides. What does it mean to be equal in technological terms as individuals and societies? This paper argues that the history of work on gender and technology offers some themes which are of general interest. This work emphasizes that technologies are integrated dimension of social structures, processes, cultures and practices of distinctions and unequal identifications associated with them at macro and micro levels. Technologies are a social site in which political, economic, collective and individual manifestations of power, empowerment and disempowerment are expressed.

Just as individual texts have become filaments of infinitely tangled webs, so the digital machines of the present century weave new networks from what were once isolated words. Media becomes interactive and hyperactive, the multiplicitous components of an immersive zone which "*does not begin with writing; it is directly related rather to the weaving of elaborate figured silk*" (Plant, 1998: pp11-12). Just as textual technologies cheap paper, the typewriter, printing accompanied new discourse networks and social formations, so electronic communication technologies radio, television, computer networks accompany the discourse networks, and social formations now



coming into being. These technologies, discourse networks, and social transformations continue the trend toward increasing awareness of a sense of self; toward increasing physical isolation of individuals in Western and Western-influenced societies; and toward displacement of shared physical space, both public and private, by textuality and prophetic communication in brief, the constellation of events that define the closing of the mechanical age and the unfolding or revelation of what, for lack of a better term, we might call the virtual age. (Stone, 1996:p20). From the above it can be deduced that women can equally contribute in all aspect of human development including participation in political processes in their societies.

A woman finds it very difficult to make up her mind to venture into politics. Once she makes up her own mind, then she has to prepare her husband, children, and her family. Once she has overcome all these obstacles and applied for the nomination form, then she has to face a big challenge from her male aspirants against whom she is applying the same seat, her immediate society and after all this, when her name goes to the party bosses, they do not select her name because they fear losing the seat to a woman.

Women's participation in politics of any country gives a strong message globally not only in terms of equality and freedom of liberty but also in the space provided for women in the democratic framework of electoral politics. Nigeria has one of the strongest laws that provide women a life with full honor and dignity. But the customs, patriarchal set ups and societal norms have always treated them as subordinate to men. They are always taught to be submissive. Because of unequal distribution of resources, women do not have adequate resources, be it economic, material or human. It should come as no surprise, therefore, that women's under-representation in Nigerian politics raises grave concerns regarding democratic legitimacy and fundamental issues of political representation. Electing more women increases woman participation in policy debates and deliberations regarding woman representation in political sphere. Political participation allows for political agendas to be developed by women 'taking part in politics' through a range of activities such as discussion and debate, lobbying and activism in formal and informal ways. The prime obstacle that hinders women's representation and participation is patriarchy. It is the very basis that makes most of the society realize and even forces them to think that women are incapable of political participation and representation. And, so they should be restricted inside the four walls to perform household chores. Some of the facets of patriarchy that play major role are (a) public-private divide (b) lack of family support especially husband (c) the belief that politics is man's arena (d) political parties also believe that women lack the 'win-ability' characteristics.

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deliberations include women's views and experiences. Political participation means which allows for political agendas to be developed by women 'taking part in politics' through a range of activities such as discussion and debate, lobbying and activism in formal and informal ways. The prime obstacle that hinders women's representation and participation is patriarchy. It is the very basis that makes most of the society realize and even forces them to think that women are incapable of political participation and representation. And, so they should be restricted inside the four walls to perform household chores. Some of the facets of patriarchy that play major role are (a) public-private divide (b) lack of family support especially husband (c) the belief that politics is man's arena (d) political parties also believe that women lack the 'win-ability' characteristics.

Literature Review

Many researchers including Randall (1987), Matland and Taylor (1997), Rule (1981) explore various factors that hinder women participation in politics such as lack of time for politics due to their domestic obligations, their lack of socialization for politics, their lower social capital and weaker asset base than men owing to discrimination in schools and in the market, their under representation in the jobs that favor political careers, their marginalization within male-dominated parties, their inability to overcome male and incumbent bias in certain types of electoral systems. Research by Browne and Barret (1991) found a strong association between female education and socio-economic development at both the individual and societal level. Oduol (2008) found access to education and lack of quality education as barriers for many women. That shows lack of adequate education ill-equips women for leadership. While some of the researcher including Kellerman & Rhode (2007), Kiamba (2008) found gender stereotype as one of the important barriers for women leadership. Women also face a 'double edged sword' ascribed to gender role stereotypes, as there is a long-standing and widespread belief that male traits are consistent with leadership. Kunovich, Paxton and Hughes (2007) explained that cultural ideas about women can affect women's levels of representation throughout the political process, from an individual woman's decision to enter politics, to party selection of candidates, to the decisions made by voters on Election Day.

Challenges for Women Participation in Democracy

Bari (2005) in a study identified some important factors which hinder the women political participation. These are: Ideological factors, political factors, socio-cultural factors, and economic factors that are very important in these regards. Besides these lacks of capital and strategy for women, there are numbers of obstacle of women participation in politics such as:

Illiteracy: is one of the main hurdles in making women as politically empowered. Because of lack of understanding they do not know about their basic and political rights. Gender disparities in terms of education, ownership of resources and continual biased attitudes still act as barriers for women leaders. Education influences the social mobility of women. Formal education such as provided at educational institutions created opportunities for leadership, and imparted leadership essential skills (Walters & Mason, 1994).



Work and Family: uneven distribution of house hold work between men and women also one of the important factors in this regards, uneven distribution of family care responsibilities means that women spend far more time than men in home- and child-care. It relating not just to the time, effort, and medical care of pregnancy and childbirth, but to the far greater maternal involvement necessary for breastfeeding, and to the persistent tendency of women to do a larger share of childcare as the child grows.

Lack of Political Networks: The lack of openness in political decision-making and undemocratic internal processes poses a challenge for all newcomers, but particularly for women as they tend to lack insider knowledge or political networks.

Private-public Divide: in terms of domain identification and male preponderance in political institutions. Because of their low proportion in inner political party structure of Nigeria, they have failed to gather resources and support for nurturing their political constituencies.

Lack of Financial Support: Women do not get adequate financial support from the political parties to contest the elections. This could be as a result of their weak economic base and capacity to mobilize political financial capital.

Societal and Cultural Norms: imposed on women bar them from entering politics. They have to accept the dictates imposed on them and bear the burden of society. They also bear their deprivation and undermining status thinking as a culture of the society. Public attitudes not only determine how many female candidates win a general election, but also directly and indirectly how many are considered and nominated for office (Welch and Sigelman, 1982).

ICTs Opportunities for Women Participation in Politics

To achieved ICT opportunities for women participation in democracy, societies must ensure the full participation of women in ICT development programme and strengthen the capacity of woman citizens to access and utilize timely information. Adequate access to ICT and digital literacy is considered to be very vital to skill acquisition, knowledge, empowerment, information generation and utilization. Therefore, to ensure full women participation in democracy through ICT there is need to improve digital literacy attainment among woman citizens. Literacy is the ability to identify, understand, interpret, create communicate and compute using printing and written materials associated with varying contexts. Literacy is the ability of a person to function in all the activities in which literacy is required for an effective function of his/her group and become vibrant community member and also for enabling him/her to continue to use reading, writing and calculations for his/her own and the community's development (UNESCO, 2010).

Hence, ICT and digital literacy involves the ability to identify, understand, interpret and make use of information using digital technologies. Ifijeh, Iwu-James and Adebayo (2016) saw ICT and digital literacy as the ability to identify, search and utilize required information in multiple formats from a wide range of sources presented through information and communication technology. However, digital literacy could also participate in an environment increasingly dominated by access



to electronically enable information (National Electronic Media Institute, 2016). ICT is non-negotiable in our modern society. Almost every aspect of our lives is being dominated by the internet and digitized services. Therefore, woman employment on ICT development is very necessary to enable and prepare them for a more responsive and effective participation in democracy. Growing numbers of women are using the Internet in work and other settings. They are intrinsically a part of whatever the new social fabrics of connectivity turn out to be that are currently being shaped by cyber developments and applied strategies. Women's as well as men's direct involvement in shaping those developments and strategies, including different processes of innovation, are part of the picture that is unfolding.

Diverse global political processes have demonstrated women's active roles in contributing to the building of this so-called new information age or network society. They are part of the growing connectivity that is, to some extent at least, disrupting established linear views of 'development' and emphasizing, among other things, the importance of considering ICT capacities as an integrated aspect of possibilities for societies around the world.

The much-debated public/private structure of major patriarchal historical trends across societies (see, for example, Jaschok and Miers, 1994; Croll, 1995; Youngs, 1999a and 2000) has been identified by many analysts as central to the socially constructed relationships between technology and gender. Technologies, it is argued, largely follow the public/private patterns that allocate most political, economic and social power and influence to the former and least to the latter. The prime association of male and female practice, power and identity with the former and latter respectively informs the gendering of technology. For example, the highest technological sectors linked to pure science and innovation such as space and military research, as strategic public sphere sectors, tend to be predominantly regarded as masculinist domains. The importance of history is clear in this respect in relation to the major influence, for example, of enlightenment developments in the West in shaping the social primacy of science and scientific rationality, and masculinist forms of practice and identity associated with them.

This does not mean of course that women cannot be present in strategic scientific sectors, as indeed women have become increasingly involved in the public sectors of institutional and commercial life more generally in many societies. Key questions are not whether women are present but what kind of power and influence do they have, and whether the settings they operate within are still largely defined by significant patriarchal and historically embedded trajectories, structures, parameters and values? The following is a broad but indicative statement. Men are more commonly identified with "higher" technologies and their invention and adaptation, and women are more commonly identified with "lower" technologies (such as the typewriter, word processor and domestic appliances) and their use rather than invention (See, for example, Stanley, 1992 and 1993).

Conclusion

Society needs to deconstruct the stereotype of women as limited to household activities only. To emphasize on helping women in bridging the digital divide and provide equal opportunities for both men and women in democracy. Overall political parties' environment too is not women friendly;



they have to struggle hard and face multi-dimensional issues to create space for them in the party. It is important for all institutions (state, family and community) to respond to women's specific needs such as bridging gaps in education, renegotiating gender roles, the gender division of labor and addressing biased attitudes.

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