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SCIENCE WOMEN IN THE SOCIETY AND INEQUALITY

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Abstract
This paper investigate science women in the society and inequality. Government and other stakeholders should endeavour to work on the system by assisting, improving, supporting and encouraging women into science education for scientific and technological development and eradication of gender inequality. The challenges noticed include discouragement from parents, spouses, society and government. The paper recommended that, special allowance should be provided for women, easier admission opportunities for women into higher level of learning, public enlightenment for the public on importance of women to be allowed to study science and legal action taken against parents and husbands who disallow their females from study science.

Keywords: *Women, Science, Development, Society*

Introduction
Education is very much connected to women ability to form social relationships on the basis of equality with others and to achieve the important social good of self-respect. It is important, as well, to mobility (through access to jobs and the political process) and to health and life (through the connection to bodily integrity). Education can allow women to participate in politics so they can ensure that their voices and concerns are heard and addressed in the public policy. It is also crucial for women to access legal system.

Women have made significant contributions to science from .foe earliest times in all aspect of life at home and outside the home, (Dahunsi, 2020). Historians with an interest in gender and science have illuminated the scientific endeavors and accomplishments of women, the barriers they have faced. Women are under- represented in science and technology, whether in basic research or at higher decision making levels, (UNESCO, 2016).

Education in the world is a fundamental right of every citizen including women. Women seems not to be given enough opportunities to study science. Women should be given special considerations in education. According to the National Policy on Education (FME, 2004), though gender discrepancies still exist in the educational) sector as it is not all the girls that acquire primary education got enrolled into ' secondary education. Importance of women education has been of central significance to the development of human society. It can be the beginning, not only of individual knowledge, information and awareness, but also a wholistic strategy for development and change.

Concept of Science Education

Science is a dynamic human activity concerned with understanding the workings of our world. This understanding helps the scientists to probe further into the nature of things and events and to control and harness such things and events for the benefit of mankind. Science has to do with automobiles, television, books, radio and countless manufactured goods. Science is concerned (although contested by many scientists) with finding out the truths about nature. Science began with early man. From his actions and experiences with nature he discovered the seasons; when and how to plant his crops; the necessary conditions for seed germination, the difference between raw and cooked food and diverse patterns of stability and change of events in nature. From time immemorial, man has concerned himself with the study and interpretation of events in nature.

To others, science is a search for meanings or explanations of events in nature. Science can be defined in terms of its methods or processes i.e. what scientists do. Science can be defined in terms of its product, i.e.

knowledge in the form of facts, concepts, laws and theories. Also, science can be defined in terms of its ethnics or motives. None of these three ways presents an adequate definition of science. Also, some scientists define science as an attempt by human begins to organize their experiences about nature into meaningful systems of explanations. The term experience includes such things as:

1. The discovery of regularities or discrepancies and their effects in nature;
2. Knowledge of human actions on things, events or situations and the consequences of such actions and
3. Understanding derived from control of diverse phenomena in nature and so on, (Dahunsi & Ugwu, 2017).

It is pertinent for us to know that science tries to explain how and why things happen and that it fights against the forces of darkness, ignorance and superstitious beliefs. Science could be described as a process which consists of identification of problems or hypothesis, observation, data collection, data analysis, experimentation or test, verification and result. Science also deals with the systematic study of natural phenomena or abstract ideas. It concerns itself with knowledge arranged in an orderly manner in which one event leads or causes another.

Modern science may be broadly divided into four broad branches, namely;

1. Physical Science
2. Mathematics and logistic
3. Social Science and
4. Biological or life sciences, (Saad, 2019).

When scientific study is directed to natural occurrences, we describe it as natural science. However, when such a study is directed towards social occurrences, we refer to it as social and so on.

Science is a systematic method of knowledge pursuit which relies heavily on observation and collection of data, allows for replications with the likelihood of arriving at the same result as well as aims at predicting in order to control events in the world. Science can be seen as the activity of

man by which he attempts to understand certain aspects of the world by making controlled observations, collecting data and then discovering patterns and laws, which governs the behaviours of things. This definition expresses the fact that scientific pursuit is governed by observation, control and efforts to predict the outcomes- According to (Otuka, 2019) the exploration of science involves developing the learners' ability to plan, effect, interpret, draw inferences and communicate the experiment and outcome. This means that for the problem of learning, perception of the problems must be recognized. Science can be seen as the utilization of physical objects in the explanation of natural phenomena and betterment of living for human beings. Science encompasses the pursuit of knowledge through a stated procedure aimed at controlling and predicting future outcome while at the same time controlling and allowing replication. It is the foundation upon which the bulk of present technological breakthrough is built (Adokwe, 2021).

It should be noted that the idea of science started when people began to observe and understand their environment. Science, from a linguistic view point is coined from the Latin word 'Scientia' which simply interpreted as knowledge. Many scientists, writers and scholars have defined science in diverse forms. Science can be said to be knowledge gained by .study, knowledge obtained by observation and testing. Science can be define as intellectual activity through which man seeks to. understand nature. Science is a body of knowledge which is acquired through observation and systematic experimentation. Science as 'knowledge arranged in an orderly manner, especially knowledge obtained by observation and testing facts'. It is not dogmatic, and has special characteristic that its tenets are universal and capable of reproduction under the same condition anywhere (Dahunsi, 2017). Science varies from one scientist to another. To some scientists, science is an organized body of knowledge.

Relevance of Science

Science can be used to achieve national objectives, then the use of good teaching methods through which these knowledge and skills can be conveyed to learners easily must be adopted. The adopted learning

methods to be used in teaching with materials that will assisting them to make use of their special abilities and interest in carrying out science activities. Encouraging them to participate actively in class work all these make learning easy, enjoyable and fun for them to learn and it will lead to quicker achievement of set goals through proper implementation of the curriculum.

Important goals of schooling is to teach science students to think positively and school subjects taught should help to accomplish this goal science lessons can be planned towards achieving the set goal the following:

- Cultivating and developing the students' skill of inquiring, knowing and rational mind for the conduct of a good life and democracy,
- Enhancing better understanding of the immediate environment
- Promoting a change in disposition or behavior that is relatively permanent -"-overtime and brought about by experience (Saad, 2021).

Why Teach Women Science

Science education should be taught to women to assist in contributing to knowledge through its uniqueness - skills, with emphasis on hypothesizing. This will encourage the students to use and manipulate things in their immediate environment, by : observing, making inferences based on previously gathered data. Making the students to obey the rules of being precise in quantity to be used, using the appropriate words or symbols, classifying objects accordingly and state the results honestly and precisely. New methods of teaching science can empower women and help remove the barrier of negative attitudes, paving way for fruitful participation in the sciences. Also in teaching women in science will make an important contribution in bridging the gender gap.

Education particularly science education is a critical input in human resource development and is essential for the country's economic growth. It increases the productivity and efficiency of individual, and it produces a skilled labor force that is capable of leading the economy towards sustainable growth and prosperity. The progress and wellbeing of a country largely depends on the educational choices made available to

women. It can be one of the most powerful instruments of change that can help a country achieve its national goals via producing women with knowledge, skills, and competencies that shape their fixture. The widespread recognition of this fact can create awareness on the need to focus upon literacy and elementary education of women, not simply as a matter of social justice but more to foster economic growth, social well-being, and social stability for women (Okediji *et.al,* 2021).

Science has been accepted in the entire world as the vehicle for scientific and technological advancement. Therefore science education plays an important function in the educational system of all the nations of the world including Nigeria, This is because science is capable of influencing decisions that can lead to affect the nation. The place of science education is widely recognized and has made science to be globally outstanding and distinct among other subjects and considered as an important tool for scientific and technological development and advancement. Considering the importance of science education in the development of individual in the nation particularly women a special position and recognition has been given to science education in the curriculum of schools at all levels as core — subjects in Nigeria. Science education should therefore be taught to attain the level of desired scientific and technological height (Akandi, & Adebayo, 2019).

A reasonable portion of the science education curriculum should emphasize process skills, as enhanced in the national curriculum for women in senior secondary schools (FME, 2004). Teachers need to select curricula which emphasize science process skills. Emphasis should be made on the implementation of this and using the necessary educational media to achieve special provision for materials the purpose of science teaching in schools. This will encourage women participation in science because more women in science can help bridge the gap existing, women in science can assist in - influencing and encouraging the others. The young ones can easily be brought into science by the older ones already in science education,

(www.scidev.net/global/communication/opinion/women/women-teacher-can-help-bridge-the-science-gender-gap-1.html 2016)

Science students need to improve in skill acquisition, decision making and have better understanding of principles and concepts in science. Inquiry based learning in science t4 is concerned with good teaching methods. Thus science teaching can be promoted by ; selecting adequate and appropriate teaching methods at all levels like inquiry. Science students are expected to be capable of formal logical reasoning and abstract thinking and these can be developed through inquiry..

Society, Women, Science and Inequality

Apart from the acquisition of knowledge and values conductive to social evolution, education also enables the development of mind, training in logical and analytical thinking and scientific attitude to life. It allows an individual to acquire organizational, managerial, scientific and administrative skills.

Inequality in education directly and significantly affects economic, scientific and technological growth, women will not be allowed to function in the right capacity to affect development. Science in general has the significant inverse relationship with poverty, because it provides employment opportunities and rejects poverty (Geoff, 2017).

Moreover, enhanced self-esteem and improved social and financial status within a community is a direct outcome of education. Therefore, promoting science education among women can lead to social and human development, and gender equality. Studies have revealed that increase in women education boosts their wages Increase in the level of female education improves human development outcomes such as child survival, health and schooling. Lower female science education has a negative impact on economic, scientific and technological growth as it lowers the average level of human capital.

The inclusion of training and educating women in science will not only ensure and improve women welfare, it will also increase the overall productivity of the workforce due to more competitiveness and this is desirable for the government to allocate more resources towards women education especially in science. Women education is so inextricably linked

with the other facets of human development to make it a priority and also make change on a range of other fronts; from the health and status of women to early childhood care; from nutrition, water and sanitation to community empowerment; from the reduction of child labor and other forms of exploitation to the peaceful resolution of conflicts, www.scidev.net/global/education/feature/overcoming-gender-barriers-in-service-facts-and-figures(2016)

Government and Women in Science

Government should also encourage girls to study mathematics, science, computer, and business administration among others. This way, girls will specialize in higher paying fields (jobs) instead of solely focusing on care work like child bearing, hawking, home keeping and small scale farming. The gender disparity in education is much lower in urban places vis-a-vis rural areas. One of the possible explanations of this pattern is relatively stronger dominance of tribal, feudal and patriarchal traditions in rural areas also felt in the urban areas too. Moreover, there are very few employment opportunities for women in rural areas, and thus, there is very little financial incentive for families to send their girls to schools.

Government should be committed to providing every citizen an access to education, out unfortunately budget allocation towards education may not specify provision for women education. Government needs to fully address and resolve the gender concerns that exist in the educational sector. One of the ways to improve this situation is by increasing funding for women education, government should make the provision for this, women in the rural areas should be encouraged, parents and guardians should be made to send their girls to schools. The first nine years education is compulsory for every child in Nigeria, but due to culture, poverty and child labour, the country has been unable to achieve 100% enrollment at the primary level which in turn affects other levels of education. The girls are at the receiving ends that are kept behind in the home for domestic use leading to early marriage, (UNESCO, 2016).

From the point of educator, it is interesting to note that, despite the inadequate representation of female in the education sector, the level of

achievement of female students is consistently far higher than that of their counterpart male students in some fields (Abbas, 2019). Girls if allowed may do better than boys in some examinations, and maybe higher achievers in science subjects in schools. Unfortunately, majority of the girls never get an opportunity to develop their educational capabilities early in some homes because of early marriage, hawking and they are used in homes as cooks, housemaids and so on.

Socio-economic Problems Facing Women in Science

In some areas women are unable to develop job-market skills; hence, they have ⁝ limited opportunities available to them in the wage-labour market. Moreover, social and cultural restrictions limit women chances to compete for resources in a world outside the four walls of their homes. It translates into social and economic dependency of women on men in all areas of life. The nature and degree of women oppression and subordination vary across classes, regions and the rural and urban divide in some religion in Nigeria. Male dominant structures are relatively more marked in the rural and tribal setting where local customs and indigenous laws establish stronger male authority and power over women and it has affected women in science education. To study and be in science education, one needs full concentration, when a woman is pregnant, nursing a baby, a full time or part time housewife, she may not be able to cope and compete fairly with her male counterpart who has lesser responsibilities at home.

Male children seems to be more valued than female children in African families Females are a times not given the same opportunities like the males. This has led to . some women being made to end in the kitchen in some uncivilized areas in this part of the world. As mentioned above, gender division of labour enforces women to primarily specialize in unpaid care work as mothers and wives at home, whereas men perform paid work, and come out as breadwinners. This has led to a low level of resource investment in girls' education including science not only by their families but also by the communities. This low investment in women human capital, compounded by negative social biases and cultural practices, restrictions on women mobility and the internalization of patriarchy by

women themselves, becomes the basis for gender discrimination and disparities in most spheres of life even in science education.

This gender division of labor has been internalized by the society, and girls do not have many choices for themselves that could change these patriarchal realities of their lives. Society does not allow girls to develop their human capabilities by precluding them from acquiring education especially science education. Lack of emphasis on the importance of women in science education is one of the cardinal features of gender inequality.

Recommendations

All hands to be on deck for holistic development of women in science along the following lines,

1. Science programmes for the development and to educate women should be carefully designed and well executed. Science education classes in the evenings for dropouts and pregnant women should be encouraged and be functional.
2. Husbands and parents that deny their wives and daughters education at any level to be brought to book especially female interested in science in higher schools.
3. Ensure major policy interventions to bring women social status and economic opportunities at par with those of men most especially in science;
4. Free education for girls interested in studying sciences to be introduced in the country; and;
5. Identification and removal of all appearances of discrimination based on sex at home, offices, admission in schools at all levels.

Conclusions

Gender inequality in science may have some impact on women in the rural areas that could cause or them into poverty. Female literacy is important for poverty to be alleviation in these rural areas. Women in science education in Nigeria can be characterized by extensive gender inequalities. Girls/women have to face socio-cultural hurdles to acquire science. It is not

only humane and ethical thing to provide everyone easy access to education without any gender bias, but it is also essential for scientific and technological development and progress of a society that both men and women are educated in science.

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