# IMPACT OF SCIENTIFIC KNOWLEDGE CURRICULUM ON ATTITUDE CHANGE AND RIGHT VALUES AMONG NURSERY PUPILS: A CASE STUDY OF KAURA L.G.A OF KADUNA STATE.

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#### **Abstract**

This study tends to examine the impact of science related teachers in the philosophy and sexology in some cultures. In others words, the gender sensitivity that exists in humanity. A population of 90 Nursery and science related teachers were used in the study all drawn from the ten Traditional Districts in Moro'a Chiefdom of Kaura Local Government in Kaduna State. Five questions were developed and administered by interview followed by a discussion. The trend study or longitudinal survey design was used and findings revealed that women in Moro'a culture and their neigbours were not allowed to eat chickens, eggs or gizzards and some certain meant to some extend. Finally, recommendations were made as to the importance of meat as a chief source of proteins for body building.

# **Background of the study**

Philosophy is as old as mankind himself. For the Lord grants wisdom from his mouth come knowledge and understanding. He grants a treasure of common sense to the honest (Prov. 2: 6 and 7).

The words of our elders are words of wisdom, he who hears gets wiser. Elders are the custodians of culture, beliefs, values and attitudes of the society. In other words, the dos and don'ts of the society are always been transferred from elders to their children since they are the future generations and without which culture dies off. The elders pass on to the young generations some certain foods they eat, their mode of dressing, the language, respect for elders, gender sensitivity amongst others. The people of Moro'a are not exceptional.

Gender sensitivity exist greatly among some cultures. For example, boys are considered of having more prestige than the girls. Some cultures do not permit women to eat some certain animals (taboo), girls are not allowed to eat in public. In the words of Trumam Yatai Sidi (1993) that girls in the culture of Moro'a do not eat food in the presence of boys, same is applicable to married woman; rather they eat in secret. It is a taboo for women to eat on the same table together with their husbands. In the same vein,

women do not eat bones, they eat meat in secret and have a (left over) so that she is not used to eating meat. Some vomit if it is not the type of meat they eat, example the abstinence from eating chickens etc. They eat only animals with horns. That is the philosophy that is transferred from the elders to the future generations for continuity. Wow!!!

The concept of science is a body of knowledge which consists of its products, processes and attitudes (Agbo F. 2000). These products as consist in science are facts, concepts, principles, laws, theories, and generalization. The processes consist observation, classification, measurement, quantifying, gathering raw data, inferring and hypothesizing. The attitudes are curiosity, open-mindedness, objectivity, honesty, rationality and humanity.

The concept of philosophy is a logical clarification, analysis of language concepts or words. It is also the systematical study of ideas, views of people, thinking on an abstract way in nature although every individual has ideas but he may not be aware of it. Example, infants may have idea of God, death, beauty etc they may acquire certain values, attitudes as influenced by interacting with the environment around them, in other words to think and to solve problems accurately. Philosophy means the love of knowledge and wisdom (Buenyen 1994). Philosophy deals with the systematic body of principles and assumptions underlying a particular field of experience.

The concept of curriculum as defined by Guga A; and Bawa M. R. (2012) is "run a course". Paul Hirst in Guga (2012) has that curriculum is a programme of activities designed so that pupils will attain as far as possible certain educational ends and objectives. Saidu S; personal lecture (2013) pointed out that curriculum can be seen as ideas coming into the curriculum planners that can lead to positive change. Colin J. M. (2009) viewed curriculum as what the students construct from working with the computer and its various networks such as internet.

Tanner and Tanner (1975) in Ben Yunsa (2008) see curriculum as the planned and guided learning experiences and intended outcomes formulated through systematic reconstruction of knowledge and experiences under the auspices of the school.

The concept of sexology is all about gender (Saidu, personal lecture, 2014). Websters Dictionary defined it as the study of human sexual behaviour. There are several views, notions, norms, cultures, beliefs and traditions on this concept of sex. That is why in teacher preparation, gender is not a barrier to curriculum planning. Teachers are generally given the skills to the would be teachers. Well, only in one aspect we are segregated – home economics, food and nutrition. But in war (forces) there is a vow – no segregation, no centmentally; both man and women suppose to work together to make sure that the two heads meet together for the better.

## **Statement of Problem**

Prohibition of eating certain foods amongst humanity, ethnic, race or gender in all societies or cultures including Moro'a, Kataf, Kagoro to mention but a few especiality at

a certain stage in life should not be tenable. Our future generations should be inculcated through the teaching and learning of science in schools to enlighten them on beliefs or philosophies of the societies without scientific proofs. The academic benefits as well as the social, psychological and cultural well-being generating from education in the gender sensitivity be a point of concern hence the use of foods or meat serves as a source of body building in line with maintenance of a healthy body animals proteins are complete first class proteins for they contain all essential amino acids such as myosin - found in meat and fish, albumen found in white egg and milk, casein found in cheese, globulin found in milk and blood and vitallin found in York or eggs. (Njoku P. A. 1982:12). Yet, even in its usage, in the first three years of life, or the first years in school life, many questions remain unanswered regarding gender sensitivity in societies or schools. for instance, how feasible is it to teach sex education in Nursery classes? What purposes would the teaching of gender sensitivity in schools achieve? What modalities are considered effective for the purpose of teaching gender sensitivity in Nursery classes? What effects would the teaching of philosophy and sexology in curriculum have on nursery pupils' attitudes and values in the society? These questions were investigated in this study.

# **Purpose of Study**

This study was to determine the feasibility, purposes, modalities and effects of science in the philosophy and sexology in curriculum theory for teaching nursery pupils. The research also ascertained the effects of which teaching pupils gender sensitivity have on pupils' attitude and values in the society.

## **Method and Procedure**

This study used the randomized trend study or the longitudinal survey design. The subjects were equally drawn from the primary schools each from the ten traditional districts in Moro'a Chiefdom of Kaura Local Government in Kaduna State. A total of 90 primary school teachers were used for this study of which 20 teachers teach in the nursery classes while 70 teachers were science related subjects who teach primary 1-6.

All the respondents used were considered academically equivalent regardless of whether they teach in the nursery classes or primary 1-6. The researcher used some 30 minutes to give a talk on the philosophy of some cultures in relation to meat or chickens, eggs eating by female, the dos and don'ts of societies. The terms philosophy, sexology and curriculum were also explicitly explained to the respondents in other to achieve the objectives of the subject matter. Similarly, at the course of the study, further explanations were made on questions seeming difficult to the respondents.

These additional explanations to terms and questions were subjected to face validation and field trial before being used.

The five questions were drawn from the science related fields, curriculum, materials, and philosophy based on the table of specification. All the questions were

asked and discussions by the respondents and researcher took place to ascertain the genuinity of the response to the question asked-and at that point in time, the researcher was as well busy in note taking.

## **Instrument**

Five research questions were used as data collection. Thus;

- 1. How feasible, in the opinion of nursery school teachers in the teaching of sex education for nursery class?
- 2. What educational purpose would be served by teaching gender sensitivity in our nursery class?
- 3. What are the modalities that would ensure the effective teaching of gender sensitivity in nursery class?
- 4. How are the attitudes and values affected by the teaching of scientific knowledge among nursery pupils?
- 5. How are nursery pupils' achievements in scientific knowledge curriculum affect gender sensitivity?

The instrument was validated by '3' experts, '1' from Department of Science and Technology Education and 2 from Department of Educational Psychology and Measurement in Education, all from the Faculty of Education, University of Jos. Their comments formed the basis for reliable modification for the study.

Table 1: Educational purpose serviced by teaching gender sensitivity in nursery class

s/no	Factor	Number	Frequency	Percentage
1.	There will be knowledge of male and	90	90	100
	female			
2.	There will be knowledge of role of male	90	80	88.89
	and female			
3.	There will be knowledge of modes of	90	90	100
	dressing			
4.	There will be socialization among pupils	90	60	66.67%

The respondents were asked to honestly respond to what educational purposes would be served by teaching gender sensitivity in Nursery class.

The researchers used frequency count and percentages for data analysis.

Results: Educational purposes for teaching gender sensitivity were identified. The result showed that 100% of the pupils will be knowledgeable to differences between male and female and their modes of dressing. 88.9% of the respondents stated that there will be knowledge of the roles of male and roles of female.

66.67% of the teachers agreed that there will be a social interaction between the boys and the girls even in the classroom and outside the school environment.

Modalities to ensure the effective teaching of gender by teachers is hereby shown below:

Table 2: Modalities to ensure the effective teaching of gender sensitivity in nursery class.

s/no	Factor	Number	Frequency	Percentage
1.	By the use of charts	90	50	55.56
2.	By the use of pictures	90	90	100
3.	By the use of real person	90	90	100

The result in table 2 shows the modalities to ensure the effective teaching of gender sensitivity by the nursery and science related teachers. 100% of the respondents agreed that the use of pictures containing both male and female or male separate and female separate and the use of the real person(s) (boys and girls) in the class while teaching.

55.56% prefer the use of charts in teaching the gender difference.

Table 3: How pupils' attitudes and values are affected by the teaching of scientific knowledge in the society.

s/no	Factor	Number	Frequency	Percentage
1.	There will be change in behaviour	90	90	100
2.	There will be change in values	90	70	77.78
3.	There will be tolerance among boys and girls	90	90	100
4.	There will be equity among boys and girls	90	80	88.89
5.	There will be socialization among boys and girls	90	90	100

The result in table 3 above shows how pupils' attitudes and values are affected by the teaching of philosophy and sexology in curriculum theory in the society.

The result shows that 100% of the respondents have a greater feelings that there will be change in the behaviour of the pupils, there will be tolerance amongst the boys and the girls within and outside the school system and there will be more socialization between the boys and the girls. 88.89% of them stated that there will be equity in gender and while 77.78% of them agreed that there will be a great change in values.

## **Discussion**

As the result from table one above, the teaching of gender sensitivity (social development); this agreed with Mallum, J. O., Haggai, M. P., Ajaegbu, K. J. U.

(2002:76) that in social development, "children develop sexual identity and their play is influenced by increasing identification of gender. They interact more and more with peers and their plays become more complex and interdependent." As socialization among pupil's increases, Mallum et al (2002) have it that toward the end of this period – age 5 and 6, children develop the social skills of sharing and taking turn.

The knowledge of male and female – according to Mallum, J; Haggai, M. (2001:122) at the psychosexual stage of personality development the phallic stage (4-6 years), the resolution of the Oedipus complex (i.e an unconscious sexual attraction which an individual has for the parent of opposite sex) and the Electra complex (i.e the opposite complex for girls); lay the foundation for sex roles and love for the people of the opposite sex and also positive attitudes towards people in authority.

Results from table two-modalities for teaching gender. These modalities are the curriculum materials that are expected to assist the learners achieve instructional objectives as spelt out by the teacher who is the custodian of their nature, the use of pictures, charts, real things, models as agreed by Yusuf, H. O. (2012:18) that these materials will ensure learning, improve the teacher's competence and also make learning more meaningful. In like manner, real thing as the name implies is the actual object or thing, which classroom communication centres on rather than its representation (Ema, E. Isha, N. I., Ajayi, D. T; 2001:36).

Results from table three-effect in attitude and values in teaching of philosophy and sexology. There will be change in behaviour and tolerance, that is there will be change in nutrition. Nutrition is the basic foundation of health. There is no amount of discipline (Philosophy) that can make a person productive when he/she is not healthy. A healthy body contains proteins. These as agreed by Sarojini, T. R. (2001:50) that proteins contain nitrogen in addition to carbon, hydrogen and oxygen; and that they are the main body-building substances necessary for building new cells and replacing old ones', more so, they are essential for the formation for enzymes and hormones. No wonder, whatever measure of protein quality is used, most proteins of animals origin have high values. Meat, fish, egg and milk proteins contain all of the essential amino acids in good quantities – termed first class proteins or complete proteins (Geoffrey P. W.; 2002: 236).

Yes, in integrated classroom (male and female, exceptional, etc.) all children are enriched by having the opportunity to learn form one another, grow to care for one anther and gain the attitudes, skills and values necessary for our communities, Yakubu, A. F. (2000:104) inclusive school integration of exceptional persons in Nigeria. Journal of educational studies vol. 6 similarly in the words of Mukharjee, A. (1978:194) that children of this age group manifest imitative behavior.

## Recommendations

In order to experience any meaningful change, there must be change of attitudes, beliefs, and socio-cultural practices in our societies by individual parents, husbands militating against women in food and nutrition.

- Specific recommendations are:
- Increase the educational opportunities for females at all levels regardless of their number.
- Science teaching and learning must seek to associate scientific knowledge with skills to show the human development.
- Functional guidance must be put in place to help women lay sound foundation.
- Men and women alike need remedial courses to be offered in philosophy, science and sexology.

## Conclusion

The obstacles to women in science and philosophy is of great concern. Well, there will be hope if those obstacles are removed to allow women of various cultures eat all parts of meat, chickens, and eggs to increase their health. All it takes to give them is the appropriate orientation for a break-through.

## References

- Adewole, A.; Awotunde, P. O.; Enoh, A. O. Eds (2000). Journals of Educational Studies. Vol. 6 institute of education university of Jos, Jos Nigeria.
- Agbo, F. (2000). The science teacher's companion. Publication Deka, Jos.
- Ben Tunusa, M. (2008). *Issues on curriculum*. Publication Yag enterprise, Zaria.
- Buenyen, L. L. C. (1994). A philosophy of education for Nigeria a case study publication Ehindero Nig. Ltd. Jos.
- Colin, J. M. (2009). Key concepts for understanding curriculum, 4<sup>th</sup> edition.
- Ema, E; Isha, N. I.; Ajayi, D. T. (2001). *Educational technology concept and practice*. Pub. Ehindero Nig. Ltd. Jos.
- Geoffrey, P. W. (2002). Nutrition a health promotion approach 2<sup>nd</sup>

- edition. Oxford University press New Yurok.
- Guga, A. and Bawa, M. R. (2012). *Introduction to curriculum studies*. Publication Kareem and Guga, Zaria.
- Mallum, J. O.; Haggai, M. P., Ajaegbu, K. J. U. (2002). *An introduction to child development*. Deka publication Jos.
- Mukhajee, A. (1978). Educational psychology first edition. Publication Jayanta Badu, Calcutta.
- Mullum, J., Haggai, M. (2000). *Educational psychology classroom practice*. Deka publications. Jos.
- New living translation second edition topical study bible (2006).
- Njoku, P. A. (1982). Certificate health science and health education for schools and colleges. Third edition Africana publication Ltd. Onitsha Nig.

- Sarojini, T. R. (2001). *Modern biology*. *Senior secondary science series*. Africana Fab publication ltd. Onitsha Nigeria.
- The new international Webster's comprehensive dictionary of the English language encyclopedia edition 2013 edition. Publishing Standard interval media holdings USA.
- Tanner, D. and Tanner, L. N. (1975). Curriculum development theory and practice.
- Trumam Y. S. (1993). Unpublished history and culture of Moro'a.
- Yusful, H. O. (2012). Fundamentals of curriculum and instructions.

  Publication Joyce graphic printers and publishers, Kaduna Nigeria.