GENDER ANALYSIS ON EDUCATION AND INCOME: A PARADIGM SHIFT AMONG RURAL PARENTS WITH CHILDREN IN REGGIO EMILIA EARLY CHILDHOOD DEVELOPMENT IN NORTHERN NIGERIA

***[1]Ibrahim Abdullahi, [1]Shamsuddeen Idris, [2]Ashiru Bello, [3]Halima Umar**

[1]Department of Geography, School of Arts and Social Sciences, Isa Kaita College of Education Dutsin-Ma. Katsina State
[2]Department of Educational Psychology, School of General Education, Isa Kaita College of Education, Dutsin-Ma, Katsina State, Nigeria
[3]Department of Early Child Care and Education, School of Early Child Care and Primary Education, Isa Kaita College of Education, Dutsin-Ma, Katsina State, Nigeria

*Corresponding authors' email: babanaliyu@gmail.com Phone: +2348067700606

ABSTRACT

There is global progress toward gender equality with 68% of the countries in the World Economic Forum Gender Gap Report of 2019. Despite the progress, education and income are among areas in which gender is still not equally enabled in developing regions. As the world is progressing in reaching gender-equal access to education and income some programs appeared in gender equity to wipe out some obstacles faced by girls and women in education and income which may invariably improve the socio-economic status. The quantitative-exploratory-Correlational design was used in a gender-disaggregated form on the parents with children in the Reggio Emilia Early Childhood Development (REA-ECD) centres. The sample size of 405 with 204 females and 201 males was used through multistage-systematic random sampling. The instrument for data collection was adapted, data collection with the aids of trained enumerators and analysed in descriptive and binary logistic regression. The results show a significant improve (44.9%) with tertiary education, mean income N34,572. 840, [USD138.291]and 28.5 times (odds=29.46) more likelihood of high REA-ECD acceptance for girls and boys to attend schools. These revealed the need for more programs involving more women as well as laws and policies that enable girls and young women to attend school. More studies in future especially longitudinal to ascertain any dynamism in development over time. Hence, in developing countries, there are still barriers limiting women and girls opportunity.

Keywords: Gender, Reggio Emilia Early Childhood Development, Northern Nigeria

INTRODUCTION

In the recent global progress in trends toward paradigm shift from gender equality to gender equity, 68% of the world countries were reported with improvements in gender gap parity. However, despite this global progress, gender gap in education and income were still not equally nor equitably enabled in most developing countries, as appeared in World Economic Forum reports of 2019. The women and girls' poor education and income in Africa, particularly West Africa, in particular have strong links with the cultural barriers and state of poverty. These are the greatest obstacles to gender equality and development in northern Nigeria.The situation negatively affecting more women and girls than their counterparts, except with some certain interventions, being made.

This paper profiled the socioeconomic backgrounds of the parents (204 female and 201 males). The socioeconomic backgrounds within the scope of this study were age, sex, marital status, years in marriage, occupation and income. Others are education level, the form of education and a secondary source of income. The studies conducted previously related to gender and development in the study area showed that the rural cultural perspective and practices, especially by parents and some teachers affect gender equality in education (Abbas & Bukar, 2017; Aisha, 2016, 2017; Aisha & Yahuza, 2018; Ibrahim et al., 2015). Furthermore, there were reports of the development agencies and other studies that showed, the development promises cannot be fulfilled unless the gender questions in education are taken seriously into consideration(Abbas & Bukar, 2017; Adamu, 2017; Aisha, 2016, 2017; Anderson & Hodgkin, 2015; Eger, Miller, & Scarles, 2018; Giora, 2002; Ibrahim et al., 2015; Iversen, Rosenbluth, & Soskice, 2005; Jorge, Heckman, & Ziff, 2017; Legewie & DiPrete, 2012; McLeod, 2016; Sadker, David.,

Sadker, Myra., Zittleman, 2009; Safuwan, 2017). The current global trends as key to removing such gender barriers are to shift the mindset away from gender equality to gender equity(Abdu et al., 2020; Forum, 2016).

The trend target is leaving gender equality to focus on providing men and women with the same and equal opportunities in the legal frameworks(EIGE, 2017)for ownership and school attendance. While gender equity should work on to correct the historical harms (DeLoach et al., 2011) that have left women behind through societal restrictions on various opportunities. Gender equity may also provide women with the tools to succeed through such programs that offer them conditional cash transfers(UNICEF, 2018). The strong focus on gender equity may on time bridges the inequality gaps by the provision of laws and policies on gender-focused programs that level the playing ground and work to change the cultural setting (Shirin & Kihara, 2013), as well as be more supportive of women and girls in education. This cultural shift requires efforts from all stakeholders, leaders and individual community members (Miatta, 2017). Understanding the differences between gender equity and equality is essential in providing supports to girls and women(Pena-lópez & Sánchez-santos, 2017). This is not just by offering the same opportunities with men but recognizing the lingering barriers that prevent those opportunities from becoming a reality for countless females.

Theoretical Base of the Study

The gender role theory of Lindsey & Mize, (2001), was used in this study to explain parents' expectations from their children roles (masculine and feminine) particularly the behaviours portrayed in parents-child-learning. The theory underscores the importance of gender roles in the foundation

of this framework. Zumilah, (2010) describes societal expectation from both the parents to be either a masculine or feminine behaviour as constructed by society. The gender role theory was described by societal anticipation as masculinity or femininity behaviours as it as categorized as societal norms. This ascribed that, one being certain sex does not mean he or she might have a self-assured way of living on their choice (Alvergne et al., 2007; Butler, 2004; Carter, 2014; Fasona, 2014; Jorge et al., 2017; Kretchmar, 2009; NECE, 2016; Sumita Parmar, 1996). This shows gender roles are controlled by both individuals but more importantly by society (Butler, 2004; Christman & McClellan, 2012). Therefore, an individual need to portrait independent identity to remain he or she within the societal culture (Carter, 2014). This study adopted Lindsey & Mize, (2001) gender theory to ascertain the psychometric nature of desires that constituted the societal gender roles. The study observes positive impact resulted from difficulty to separate desired life of an individual from the life of a given society (Cockerill et al., 2007; Cox & Heck, 1998; Dannhaeuser, 1993). This issue has perpetuated more in the life of rural society (Ijeoma, 2017; Shen et al., 2010). Probably due to rurality culture, rural poverty, gender favouritism and environmental atmosphere (Gikonyo et al., 2006; Ismail et al., 2015; Mader, 2013).

The study besides gender theory, incorporate Vygotsky (1978) sociocultural theory due to its relevance in advancing children development by parents. This development was through social interaction with other people (Simon & Kim, 2016), principally more skilful individuals in the tasks (Turuk, 2008). In other words, Vygotsky theory believed that child development in social context includes general sphere in learning, through which child constructs knowledge actively. Vygotsky's theory was used in this study in the support of the theoretical framework into ways. According to the theory encourages children to learn through social interaction which includes collaborative cooperative and dialogue with others, more preferably who are more skilled in the tasks the children are trying to learn. The theory is related to the study in the REA-ECD acceptance within the Reggio Emilia principle, that encourage partnership with families and communities for children learning (Coşkun & Durakoğlu, 2015; Gandini, 2011; Malaguzzi, 1998; Patricia, 2016; Turuk, 2008). In Vygotsky sociocultural theory, the high skilful people like parents have been identified as important and interacted with children as reported by Turuk (2008)in the learning. In principles of REA-ECD, these could be teachers, parents, other adults and peers. This is due to their upper skill level than the children in the interaction either by age, experience and exposure (Anna, 2010; Bernhard, 2007; Malaguzzi, 1998; Patricia, 2016; Piaget, 1962, 1983; Piaget & Cook, 1952; Vygotsky, 1978).

METHODOLOGY

The research design in this paper is exploratory-Correlational as suggested by (Conboy et al., 2012; Gliner et al., 2011; Cohen, Manion & Morrison, 2007). Conboy et al., (2012), have established that this design is commonly used when collecting data at different layers or cluster from the large geographical area. The design could be adopted to achieve a particular objective in research (Fraenkel et al., 2011). This is one of the justifications for using exploratory-Correlational research design in this paper. The design is appropriate in gathering data from large samples from remote destinations. Based on these it allows the generalization of findings (Creswell & Clark, 2017),to a larger or general population of the study. Therefore, the target population of this study were the parents of children in various rural areas of Katsina state

where there are established REA-ECD centres. The population of this study is specifically those who agree with and accepted to enrol their children in the REA-ECD program centres. Therefore, all parents residing and born their children in rural areas, who agree and accepted to enrol the children in the REA-ECD program were considered as a population of this study. However, the parents who do not accept to enrol their children in the REA-ECD program, are excluded from this study. These populations were distributed within various localities across the 34 LGAs of the Katsina three senatorial zones.

The sample size of this study was determines based on the established tables and formula as suggested. The table of Krejcie & Morgan, (1970) was considered on the total population of 49,698 as the required sample size is 388.The Cochran formulae with a defined population presented the sample size of 381.However, this study after examining the samples determinant strategies was oversampled with a samples size of 432. This is to curtail the unforeseen issue of poor return rate of the questionnaires and or incomplete information from the side of some respondents. This consideration was to fulfil the basic principles of research as suggested by Fraenkel et al., (2011). This is in line with minimizing the constraints and limitations that may render the samples inadequate to represents the population under study(Creswell & Clark, 2017). This provides an opportunity for this study to use the good sample size of 432 parents.Most studies were considering a 10-20% margin of a sample size to consider for the unforeseen circumstances in the responses.The multistage systematic random sampling procedure was used to select the number of required sample of the study(Cochran, 1977; Creswell & Clark, 2017; Hashim, 2010; Krejcie & Morgan, 1970; Yamane, 1967) in each local government area. The large area coverage by the research and volume of data collected suggested using multistage systematic random sampling technique (Ary et al., 2006; Creswell & Clark, 2007; Fine, Torre, Boudin, Bowen, Clark, Hylton, Martinez, Roberts, Smart, Upegui, 2003). This is to ensure that, sampling procedure considers every member of the target population to had an equal chance of being selected in the samples (Ary et al., 2006).

The study is quantitative with a structured questionnaire as a tool for data collection. The instrument was prepared through adaption from the previously used instruments. The researchers are advised to adopt the use of previously validated instruments (Taherdoost, 2018).The most appropriate instruments for determining reliable information on the data collected was a structured questionnaire(Meyer et al., 1990). The structured questionnaire used in this study consist of socioeconomic backgrounds variables. The socioeconomic backgrounds variables include sex, age, marital status, years in married, occupations, forms of education, monthly income and level of education and secondary source of income. The remaining variables are the household size, the number of children by sex, household monthly income, children school type and age of school enrolment for children by sex. Before the data collection, there is a respondent's informed consent form, which was made available to all identified potential respondents. They are informed that their participation in the research is optional. They have the right to quit at any time they wish to without any prior notice. The respondents were also informed that all information they provided remains confidential during and after this study, and it will only be used purposely for this study.

A total of 432 questionnaires were administered for data collection by trained enumerators to the respondents of the

study. The data collection was conducted simultaneously in all the selected Local Government Areas (LGAs) by the twelve numbers of the enumerators. The enumerators' teams are divided into six groups based in local governments' areas. As the respondents of the study were male and female parents; the enumerators' teams were also males and females due to the cultural consideration in the rural society of Katsina. The enumerators were trained on how to administer the questionnaire, interview, and write or tick the appropriate answers and options given by respondents.   There two enumerators visiting every selected household in each of the selected community for the research. The enumerators were also adequately trained on the manners of approaching the respondents, and how to assist the respondents who find it difficult to read the questionnaires or write the responses. They were also trained on how to help the respondents (Fraenkel et al., 2011), to clearly understand the questionnaires. The enumerators' team were a school teacher in the respondents' locality, who were known by and interacts with the respondents' children on the daily basis. Therefore, the respondents have full confidence and comfort to fully participate in the study. Some of the data were collected by the enumerators through face-to-face questioning and completion of questionnaires.

From the questionnaires administered and filled, there is 405 number of valid that were screened and used in the analyses. The screened questionnaires were subsequently transferred to SPSS version 25 for data analyses. The process of data transfer into SPSS includes coding, which is the assigning codes to each variable in the questionnaires. Descriptive analyses as simple frequency and percentages, mean, and standard deviation, were used were necessary to analyse all the variables. All the analyses were presented in gender-disaggregated forms to capture any difference, in keeping with the aim of this study. The percentages, mean and standard deviation of relevant variables were used to compare the status of male and female respondents for gender comparison. The binary logistic regression analyses were conducted to ascertain that all components in the Wald Chi-Square statistics fit the Model in demonstrating a significant likelihood of high REA-ECD acceptance by both male and female parents. Binary logistic regression uses the logit function, which provides the most acceptable explanation of estimated coefficients (Altman & Andersen, 1989; Copas, 1983; Derksen & Keselman, 1992; Hair, Anderson, et al., 2010; Henseler et al., 2014; Huguet et al., 2017). This uses the fact that the odds of a reference event are considered the event to occur or not and assumes all other predictors stay constant (Altman & Andersen, 1989; Copas, 1983; Derksen & Keselman, 1992; Hair, Anderson, et al., 2010; Hamdollah &

Baghaei, 2016). The larger the log odds, the more likely the event and the smaller the log odds the less likely the event (Copas, 1983; Derksen & Keselman, 1992; Hair, Anderson, et al., 2010)occurs. Therefore, this by implication is showing that greater positive coefficients are indicating the events become more likely and negative coefficients indicate that the event becomes less likely (Altman & Andersen, 1989; Hair, Anderson, et al., 2010; Henseler et al., 2014).

The explained statistics considered by this study in logistic regression models is interesting to know that how much variance in the dependent variable (DV) was explained by independent variables (IV) in the Models (Copas, 1983; Derksen & Keselman, 1992; Hair, Anderson, et al., 2010). The Model's presented IVs (predictors) are represented by eight components variable of education levels and income for both male and female parents. The dependent (DV) variable in the Model is high REA-ECD acceptance estimated as '1' standing for respondents' scores ≥80%.For this reason, BLR statistics are often preferable measurement in reporting these findings. The variables in models have accepted the BLR test based on the model variables, and the logistic equation for the model is as follows:

$Z_n = B_0 + B_1X_1 + B_2X_2 + B_3X_3 …. + B_kX_k$

Note:

- z is the logit and also called the log odds of the dependent variable
- n is the number of Models
- B_0 is the constant
- there are k independent variables
- the *"B"* terms as the logistic regression coefficient, or parameter estimates
- Exp (*B*) is the odds ratio for each IV. The odds ratio is the factor by which the IVs increases or decreases the log odds of the DV

RESULTS AND DISCUSSIONS

This study profiled the socioeconomic backgrounds of the respondents. The socioeconomic backgrounds of respondents within the scope of this study are age, sex, marital status, years in marriage, occupation and income. Others are a form of education, education level and secondary source of income. There were (n=204) female and (n=201) male, these constituted the total number of respondents (n=405). Socioeconomic backgrounds of respondents are analyses, the results were presented in the Table1 below by frequency, percentages, mean and standard deviation (S.D) as were appropriate.

Table 1: Socioeconomic Background of the Respondents

| Background | Category | Respondent sex | | | | Sample | |
| | | Males *n*=201 | | Females *n*=204 | | Total *n*=405 | |
		no.	%	no.	%	no.	%
Marital Status	Married	196	97.5	195	95.6	391	96.6
	Single	005	02.5	009	04.4	014	03.4
	Total	**201**	**100**	**204**	**100**	**405**	**100**
Occupation	Civil Servants	102	50.8	062	30.4	164	40.5
	Self-Accounts	099	49.2	117	57.3	216	53.3
	Home wives	000	0.00	025	12.3	025	06.2
	Total	**201**	**100**	**204**	**100**	**405**	**100**
Education Forms	Islamic Education	039	19.4	058	28.4	097	24.0

	Western Education	018	09.0	017	08.3	035	08.6
	Both Education	144	71.6	129	63.3	273	67.4
	Total	**201**	**100**	**204**	**100**	**405**	**100**
Education Level	Primary	028	13.9	051	25.0	079	19.5
	Secondary	054	26.9	090	44.1	144	35.6
	Tertiary	119	59.2	063	30.9	182	44.9
	Total	**201**	**100**	**204**	**100**	**405**	**100**
Other Sources	Domestic Animal	110	54.7	077	37.8	187	46.2
	Food Processing	017	08.5	029	14.2	046	11.4
	Petty/hand Trading	074	36.8	098	48.0	172	42.4
	Total	**201**	**100**	**204**	**100**	**405**	**100**

Means and S. D.	**For Males**	**Females**	**General**
Respondents Age	43.33 (8.59)	34.70 (9.26)	38.99 (9.91)
Years of marriage	13.96 (6.72)	13.18 (6.02)	13.57 (5.89)
Respondent income Nigerian Naira (₦)	38,636.816 (SD=9939.44)	30,568.628 (SD=11608.42)	34572.840 (SD=11530.11
₦250 par USD	USD 154.55	USD 122.27	USD 138.29

However, the focus of this paper was to analyze gender equity in education and income, therefore, only reported and discussed education and income as the core concern of the paper. –other supporting variables to the focussed may be highlighted along with these results. Table 1 raw-4 shows that 44.9% of respondents have attended a tertiary level of education. There was 35.6% of the respondents who are atthe secondary level of education and 19.5% who completed only primary level of education. Based on the sex-disaggregated, male respondents with tertiary education level constituted 59.2%, while the female respondents with tertiary education level constituted only30.9%. On the other hand, male respondents with secondary education level were at 26.9%, whereas the female respondents with secondary education constituted 44.1%. Similarly, the male respondents with the only primary level of education constituted only 13.9%, while female respondents in this category constituted 25.0%. The average respondents' monthly income presented as mean= N34,572.840, [USD138.291] was in Table 1 above. By sex-disaggregated, the mean income of male respondents was N38,636.816. This amount was equivalent to USD154.547 when converted in US dollar. The mean income of female respondents was N30,658.628, which in conversion will be equivalent to USD 122.275. The mean income of the male respondents is far above the mean income of their counterpart female respondents. In other words, the male respondents are earning more than what female respondent are earning according to this study.

Binary Logistic Regression Results
BLR statistics obtained $p≤0.05$ in the Omnibus Tests of Model Coefficient for model indicating that the model fits to predict the likelihood of high REA-ECD acceptance. Hosmer and Lemeshow test of goodness of fit statistic at $p>0.05$, indicates that the variables (predictors) in the model were linearly related with log odds of high REA-ECD acceptance. These also show the models' components variables were sufficient and fit in predicting the likelihood of high REA-ECD acceptance. The Model represents eight components variable of education levels and income for both male and female parents. The dependent variable in the Model is high REA-ECD acceptance which was estimated as '1' and standing for respondents' scores ≥80%. The Wald Chi-Square statistics shows that components of education levels demonstrated a significant likelihood of high REA-ECD acceptance. Compared to the primary level of education, the tertiary level of education for male parents had 28.5 times (odds=29.46) more likelihood of high REA-ECD acceptance. Surprisingly, the female parents with tertiary education level had 77.6 times (odds=78.63) more likelihood of high REA-ECD acceptance compared to parents with only primary education level. Similarly, male parents with secondary education level if compared to those with primary education level had 14.2 times (odd=15.2) more likelihood of high REA-ECD acceptance. On the other hand, female parents with secondary education level had 16.7 times (odds=17.71) more likelihood of high REA-ECD acceptance compared to female parents with primary education level. However, the monthly income of both female and male parents is consistent in this study as significantly predicted the likelihood of high REA-ECD acceptance in the same manner with odds=1. 000.Therefore, based on findings it was concluded that Model significantly predicted the likelihood of high REA-ECD acceptance. The Model (Table 2, has rejected the Ho that there exist no background variables in the Models predicted the likelihood of high REA-ECD acceptance.

Table 2: Wald Chi-Square Statistics of Males and Females Models, Dependant Variable=1

Female Respondents' Model $n=201$	**B**	**S.E.**	**Wald**	**d.f.**	**Sigs.**	**Exp(B)**
Primary Education	2.471	1.222	4.089	1	0.043	11.832
Secondary Education	2.874	1.214	5.608	1	0.018	17.710
Tertiary Education	4.365	1.213	12.944	1	0.000	78.631
Monthly Income	0.010	0.000	10.782	1	0.001	1.000
Male respondents Model n=201	**B**	**S.E**	**Wald**	**d.f**	**Sigs.**	**Exp.(B)**
Primary Education	2.007	0.779	6.643	1	0.010	7.444

Secondary Education	2.722	0.766	12.625	1	0.000	15.216
Tertiary Education	3.383	0.81	17.431	1	0.000	29.463
Monthly Income	1.000	0.000	25.681	1	0.000	1.000

This study discovered that in the descriptive statistics, the number of male respondents who completed tertiary education level was almost doubled the number of female respondents who acquired the tertiary education level. This type of situation is maybe affecting women and girls' education in many of such a society, except a certain intervention, was made. Interestingly, the female parents' tertiary education level grant them more likelihood of high REA-ECD acceptance (odds=78.63) compared to male parents tertiary education level (odds=29.46). This is because the REA-ECD program was engendered by policy and involves equality in children enrolment and equity for more females among the workforce. By investing in their education, or involving them in the education programs, women and girls can increase their access to education(Abdullahi et al., 2013; Aisha, 2016; Akunga, 2010; Mohammed et al., 2013; UNESCO, 2019). These would invariably improve their socio-economic status in society and would lead to collective national development.This is because, females' education influences future education, not only for girls but the entire society (Abdullahi et al., 2013; Aisha, 2016; Aisha & Yahuza, 2018).

Though, the findings reported a reasonable number of respondents with tertiary education attainment, still it informed a serious gender imbalance in descriptive statistics results. Most of the female parents with the tertiary education have National Certificate in Education (NCE)as opportunity through the Girls Education Empowerment Program (Ibrahim, 2014), and most of them are now formally working in their various localities in the state.The findings revealed the need for more such programs that involved women and girls in education as well as laws and policies that enable them to attend different level of education. These would ensure continuity in the recent progress in the trends to the paradigm shift to gender equity. In the progress to reaching gender-equity, gendered access to education by women and girls that would lead to improvement of their income is necessary. These would invariably improve their socio-economic status in society and would be leading to societal development.

Many researchers have explained the importance of upper education levels and its effects among the individuals and families in promoting their general wellbeing (Abdullahi et al., 2013; Aisha, 2016; Anderson & Hodgkin, 2015; Anikina et al., 2015).Akunga, (2010) ascertains that family saving raised very fast when their educational levels are high. In the related discussion on education and economic development, the work of (Aisha, 2017; Ismail et al., 2005; Miatta, 2017) highlighted that education raises the economy and eliminate poverty. On the other hand, the studies on gender regarding socio-cultural and power relations among husbands and wives revealed significant negative consequences of poor education of female parents even on the accomplishment of children education (Ijeoma, 2017; Jackson, 2003; Mader, 2013; Nura & Adamu, 2017; Shortall, 2014; Shoshana, 2011).

The incomes reflected what was in the occupations and education status of the respondents of this study. Consistently the male respondents are ahead of female respondents in education, income, and white colour jobs. However, as earlier stated, this study reveals some degree of improvement from the previous studies in the socioeconomic gaps between male and female parents in the same study area. The gender gap has been narrow down compared to findings in the previous studies in the same area (Bristish, 2012; Haruna & Liman, 2015; Ibrahim, 2014; Ijeoma, 2017; NPC, 2014; Nura & Adamu, 2017; Olotuah & Olotuah, 2016; Sylvester & Ekpenyong, 2014; UNESCO, 2007; UNICEF, 2018).

This study, therefore, concludes that there is strong concord between educations level of parents as respondents, female parents in particular and their female children schooling enrolment, retention and accomplishment. Hence the improved education level of parents, particularly females would be attributed to the high REA-ECD acceptance among the respondents of this study. Therefore, more education opportunities and programs with the policies that elevate the educational status of both the present female parents and that of future one were recommended. This is because of the strong relationship between upper educational level and family wellbeing (Batoa et al., 2018). Besides, the upper education confirmed to had a strong bearing in the democratizing the family structure among households (Ibrahim, 2014). The status of women and girls' education in rural Africa, particularly, West Africa has a strong linkage with the cultural setting. Therefore, solid policy concerning these obstacles of gender and development is also recommended.

CONCLUSION

As Reggio Emilia Approach in Early Childhood Development (REA-ECD) programs appeared in rural northern Nigeria as mean of reducing obstacles faced in educating girls, and improve women's education level and income. Although the REA-ECD program was not quite long introduced in the area, it still required more time and more strategies for its sustainable impact. It suggests the need for such programs that involved women and young girls in education program, and laws and policies that would enable them to attend a high level of education. These would invariably improve their income and socio-economic status in society and would be leading to general societal development. This study was conducted in cross-sectional nature, with data from a single cultural setting though in gender-disaggregated form. Future studies in the longitudinal design and multi-cultural setting are required to ascertain any differences and changes in the development over time. Hence, in rural developing countries, there are still barriers limiting women and girls' education and income from their norms.

REFERENCES

Abbas, A. I., & Bukar, H. M. (2017). Perspectives on gendered education development in Nigeria : Evidence from Yobe state, Nigeria, 2009-2015. *Journal of Advanced Research in Social and Behavioural Sciences*, *9*(1), 57–74.

Abdu, M., Funtua, A., Abdullahi, I., Magaji, K., & Abdullahi, I. M. (2020). Role of Girls Education Empowerment on Poverty Reduction and Gender Imbalance in Rural Areas of Katsina State, Nigeria. *International Journal of Humanities and Social Science Invention (IJHSSI) ISSN*, *9*(8), 10–16. https://doi.org/10.35629/7722-0908011016

Abdullahi, I., Zainalaludin, Z., & Paim, L. B. (2013a). A Distinct Gap in Gendered Impact of Girls Education empowerment on Family Wellbeing in Rural Katsina, Northern Nigeria. *International Journal of Humanities and Social Science Invention*, *2*(4).

Abdullahi, I., Zainalaludin, Z., & Paim, L. B. (2013b). *Empowering Rural Girls through Education: Way of Reducing Vulnerability and Improving Family Economic Wellbeing in Rural Northern Nigeria*. IOSR-JHSS.

Adamu, A. (2017). *Economic Analysis of Resource Conservation and Households' Preferences of Attributes in Hadejia-Nguru Wetlands, Nigeria*. PhD. Thesis University Putra Malaysia.

Aisha, I. N. (2016a). *Influence of Socio-cultural Values on Girl-Child Education in Yobe State, Nigeria* (Vol. 768) [PhD. Thesis University Putra Malaysia]. http://www.upm.edu.my/about_us/OurLoc?LANG=en

Aisha, I. N. (2017). Seeking a Different Path. *International Journal of Science and Research (IJSR)*, *6*(9), 112–115. https://doi.org/10.21275/ART20176494

Aisha, I. N., & Yahuza, H. Abubakar. (2018). Content Analysis of Some Historical Facts and the General Position of Islam on Girls Education. *International Journal of Humanities & Social Science Studies (IJHSSS)*, *6959*(36), 8–12. doi.org/10.29032/ijhsss.v5.i1.2018.36-43

Akunga A. (2010). Northern Nigeria: Approaches to enrolling girls in school and providing meaningful education to empower change. *Engendering Empowerment: Education and Equality Conference*, (PP17-20).

Altman, D. G., & Andersen, P. K. (1989). Bootstrap investigation of the stability of a Cox regression model. *Statistics in Medicine*, *8*(7), 771–783.

Alvergne, A., Faurie, C., & Raymond, M. (2007). Differential facial resemblance of young children to their parents : who do children look like more ? *Natural Resource Management*, *28*, 135–144. https://doi.org/10.1016/j.evolhumbehav.2006.08.008

Anderson, B. A., & Hodgkin, M. (2015). *Education & Training Education in crisis through to development : the gender implications*.

Anikina, E., Ivankina, L., & Tumanova, I. (2015). Human well-being and educational investment efficiency. *Procedia - Social and Behavioral Sciences*, *166*, 48–52. https://doi.org/10.1016/j.sbspro.2014.12.481

Anna, B. (2010). *Localizing Reggio: Adapting the Reggio Emilia Approach to Early Childhood Education in Three Childcare Centres on Prince Edward Island*. MSc Thesis, Universityof Prince Edward Island.

Ary, D., Jacobs, L. C., Razavieh, A., & Sorensen, C. (2006). Introduction to research in education: Thomson Wadsworth. *Belmont, CA*.

Batoa, H., Rianda, L., Widayati, W., Sidu, D., Rahmah, N., & Arimbawa, P. (2018). *The Effect of Human Capital, Social Capital, and Competency on the Empowerment of Bajo Ethnic Community in the Regency of Muna : A Gender Perspective*. *7*(1), 6–10. https://doi.org/10.11648/j.aff.20180701.12

Bernhard, J. (2007). Thinking and learning through technology : Mediating tools and insights from philosophy of technology applied to science and engineering education.

Pantano Forum, 27.

Bristish, C. U. (2012). Improving the lives of girls and women in Nigeria:Issues, policies and action. In *Gender in Nigeria Report 2012*.

Butler, J. (2004). *Undoing Gender*. ROUTLEDGE NEW YORK AND LONDON.

Carter, M. J. (2014). Gender Socialization and Identity Theory. *Social Sciences*, *3*(1), 242–263. https://doi.org/10.3390/socsci3020242

Christman, D. E., & McClellan, R. L. (2012). Discovering middle space: Distinctions of sex and gender in resilient leadership. *The Journal of Higher Education*, *83*(5), 648–670.

Cochran, W. O. (1977). *Smrrpling TecIrniqun* (3RD Editio). John Wiley &: Sons.

Cockerill, C. a, Chilton, S. M., & Hutchinson, W. G. (2007). Household Decision Making Models And The Value Of Child Farm Safety. In *Journal of Agricultural Economic Society 81st Annual Conference, University of Reading, UK*.

Conboy, K., Fitzgerald, G., & Mathiassen, L. (2012). Qualitative methods research in information systems: motivations, themes, and contributions. *European Journal of Information Systems*, *21*(2), 113–118.

Copas, J. B. (1983). Regression, prediction and shrinkage. *Journal of the Royal Statistical Society: Series B (Methodological)*, *45*(3), 311–335.

Coşkun, H., & Durakoğlu, A. (2015). A Project-Based Approach in Child Education : Reggio Emilia. *Humanities and Education*, *1*(2), 141–153.

Cox, E. S., & Heck, R. K. Z. (1998). The family as a foundation of our free society: Strengths and opportunities. *The Entrepreneurial Family*, 8–15.

Creswell, J. W., & Clark, V. L. P. (2007). Designing and Conducting Mixed Methods Research. *Australian and New Zealand Journal of Public Health*, *31*(4), 388–388. https://doi.org/10.1111/j.1753-6405.2007.00096.x

Creswell, J. W., & Clark, V. L. P. (2017). *Designing and conducting mixed methods research*. Sage publications.

Dannhaeuser, N. (1993). The survival of family-operated firms underdeveloped conditions: The case of Hassfurt, Germany. *The Journal of Developing Areas*, *27*(3), 307–328.

Hertzman, C. (2011). Women and Repayment in Microfinance: A Global Analysis. In *World Development* (Vol. 39, Issue 5). https://doi.org/10.1016/j.worlddev.2010.10.008

Derksen, S., & Keselman, H. J. (1992). Backward, forward and stepwise automated subset selection algorithms: Frequency of obtaining authentic and noise variables. *British Journal of Mathematical and Statistical Psychology*, *45*(2), 265–282.

Eger, C., Miller, G., & Scarles, C. (2018). Gender and capacity building : A multi-layered study of empowerment.

World Development, *106*, 207–219. https://doi.org/10.1016/j.worlddev.2018.01.024

Fasona, M. (2014). *Gender Dimensions of Urban Commercial Farming in Lagos, Nigeria The high rate of poverty among urban households and the*. *January 2004*.

Fine, M., Torre, M.E., Boudin, K., Bowen, I., Clark, J., Hylton, D., Martinez, M., "Missy," Rivera, M., Roberts, R.A., Smart, P. and Upegui, D. (2003). "Participatory action. (2003). Participatory Action Research: From Within and Beyond Prison Bars. In *Qualitative Research in Psychology: Expanding Perspective in Methodology and Design* (pp. 173–198).

Forum, W. E. (2016). *The Global Gender Gap Report 2016 Insight Report*. World Economic Forum.http://www3.weforum.org/docs/GGGR16/WEF_Global_Gender_Gap_Report_2016.pdf

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2011). *How to design and evaluate research in education*. New York: McGraw-Hill Humanities/Social Sciences/Languages.

Gandini, L. (2011). Play and the Hundred Languages of Children: An Interview with Lella Gandini. *Americal Journal of Play*, *4*(1), 1–18.

Gikonyo, W., Zainalaludin, Z., & Masud, J. (2006). Empowering young women through micro-enterprise scaling-Up: A case of Malaysian rural women. *Youth Employment Summit*.

Giora, R. (2002). Theorizing gender Feminist awareness and language change. *Gender in Interaction. Perspectives on Femininity and Masculinity in Ethnography and Discourse*, *1992*, 329–248.

Gliner, J. A., Morgan, G. A., & Leech, N. L. (2011). *Research methods in applied settings: An integrated approach to design and analysis*. Routledge.

Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). *Multivariate data analysis: A global perspective (Vol. 7)*. Upper Saddle River, NJ: Pearson.

Hamdollah, R., & Baghaei, P. (2016). Partial least squares structural equation modelling with R. *Practical Assessment, Research and Evaluation*, *21*(1), 1–16. https://doi.org/10.1108/ebr-10-2013-0128

Haruna, M. J., & Liman, B. M. (2015). Challenges Facing Educating Nigerian Child in Rural Areas: Implications for National Development. In *Proceeding of the 3rd Global Summit on Education GSE (9-10 March 2015)*.

Hashim, Y. A. (2010). Determining sufficiency of sample size in management survey research activities. *International Journal of Organisational Management & Entrepreneurship Development*, *6*(1), 119–130.

Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., Ketchen, D. J., Hair, J. F., Hult, G. T. M., & Calantone, R. J. (2014). Common Beliefs and Reality About PLS: Comments on Rönkkö and Evermann (2013). *Organizational Research Methods*, *17*(2), 182–209. https://doi.org/10.1177/1094428114526928

Huguet, A., Allen, A.-R., Coburn, C. E., Farrell, C. C., Kim, D. H., & Penuel, W. R. (2017). Locating data use in the microprocessor of district-level deliberations. *Nordic Journal of Studies in Educational Policy*, *3*(1), 21–28. https://doi.org/10.1080/20020317.2017.1314743

Ibrahim, A. (2014). *Impact of Girls Education Empowerment on the Economic Wellbeing of Katsina Rural Society*. MSc Thesis University Putra Malaysia.

Ibrahim, A. N., Talib, A. T., Bint, L., Paim, H., & Gill, S. S. (2015). Cultural Dynamics of Child Labour in Yobe State Nigeria. *Journal Of Humanities And Social Science*, *20*(5), 71–79. https://doi.org/10.9790/0837-20567179

Ijeoma, B. E. (2017). *Assessment of the Variations in Quality of Life in Rural Areas of Kankara Local Government Area, Katsina State*. A.B.U., Zaria, Nigeria.

Ismail, N. A., Masud, J., & Zainalaludin, Z. (2015). Income Components and Poverty among Older Men and Women in Malaysia. *ASIAN JOURNAL FOR POVERTY STUDIES (AJPS)*, *1*(1).

Iversen, T., Rosenbluth, F., & Soskice, D. (2005). Divorce and the gender division of labour in a comparative perspective. *Social Politics*, *12*(2), 216–242. https://doi.org/10.1093/sp/jxi012

Jackson, A. P. (2003). Mothers' employment and poor and near-poor African-American children's development: A longitudinal study. *Social Service Review*, *77*(1), 93–109.

Jorge, G. L., Heckman, J. J., & Ziff, A. L. (2017). *Gender Differences in the Benefits of An Influential Early Childhood Program* (No. 23412; MA 02138). https://doi.org/10.3386/w23412

Kim, J., & Wickrama, K. A. S. (2014). Mothers' Working Status and Infant Development: Mediational Processes. *Journal of Family Issues*, *35*(11), 1473–1496. https://doi.org/10.1177/0192513X13496414

Krejcie, R. V, & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, *30*(3), 607–610.

Kretchmar, J. (2009). *Gender Socialization: sex, Gender and Sexuality* (p. 8). EBSCO Publishing Inc.

Kusuma, Y. S., Pal, M., & Babu, B. V. (2018). Health insurance: Awareness, utilization, and its determinants among the urban poor in Delhi, India. *Journal of Epidemiology and Global Health*, *8*(1–2), 69–76. https://doi.org/10.2991/j.jegh.2018.09.004

Legewie, J., & DiPrete, T. A. (2012). School Context and the Gender Gap in Educational Achievement. *American Sociological Review*, *77*(3), 463–485. https://doi.org/10.1177/0003122412440802

Lindsey, E. W., & Mize, J. (2001). Contextual differences in parent-child play: Implications for children's gender role development. *Sex Roles*, *44*(3–4), 155–176. https://doi.org/10.1023/A:1010950919451

Mader, K. (2013). *The gendered nature of intra-household*

decision making in and across Europe (Issue 157).

Maimunah, I., Rasdi, R. M., & Abdul Wahat, N. W. (2005). High-flyer women academicians: Factors contributing to success. *Women in Management Review*, *20*(2), 117–132. https://doi.org/10.1108/09649420510584454

Malaguzzi, L. (1998). Part I: History. *The Hundred Languages of Children: The Reggio Emilia Approach--Advanced Reflections*, *49*.

McLeod, S. (2016). Bandura - Social Learning Theory. *A Central Finding of This Research Was That People Could Learn New Actions Merely by Observing Others Perform Them.*, 3–5. http://www.simplypsychology.org/bandura.html

Meyer, T. J., Miller, M. L., Metzger, R. L., & Borkovec, T. D. (1990). Development and validation of the Penn State worry questionnaire. *Behaviour Research and Therapy*, *28*(6), 487–495.

Miatta, B. (2017). *Building a Pathway from Demonstration to Scale-up – Promoting Early Childhood Development in Sierra Leone*.

Mohammed, K., Nggada, D. C., & Abdullahi, Y. (2013). The State of Nigerian Female Education in the Post Colonial Era; With Reference To Some Northern States. *International Journal of Pharmaceutical Science Invention ISSN (Online*, *2*(11), 2319–6718. www.ijhssi.org

Navarro Sada, A., & Maldonado, A. (2007). *Research methods in education. -by Louis Cohen, Lawrence Manion and Keith Morrison*. Taylor & Francis.
NECE, N. C. (2016). *Healthy Gender Development and Young Children: A Guide for Early Childhood Programs and Professionals*.

NPC, N. (2014). Nigerian Demographic and Health Survey. In *Hospitals and Health Networks* (Vol. 83, Issue 5).

Nura, A. K., & Adamu, U. M. (2017). Empirical Analysis of Rural Poverty in Katsina State, Nigeria. *Yobe Journal of Economics*, *2*(1).

Olotuah, A. O., & Olotuah, D. E. (2016). Space and cultural development in Hausa traditional housing. *International Journal of Engineering Sciences & Research Technology*, *5*(9), 654–659. https://doi.org/10.5281/zenodo.155089 ABSTRACT

Patricia, E. F. (2016). *Early Childhood Development Teaching Methodologies; Reggio Emilia and Others child-centred Approaches Trainers Guides for Nigerian ECD Teachers* (No. 1; 1).

Pena-lópez, J. A., & Sánchez-santos, J. M. (2017). Individual social capital : Accessibility and mobilization of resources embedded in social networks. *Social Networks*, *49*, 1–11. https://doi.org/10.1016/j.socnet.2016.11.003

Piaget, J. (1962). The stages of the intellectual development of the child. *Bulletin of the Menninger Clinic*, *26*(3), 120.

Piaget, J. (1983). Piaget's theory. *Handbook of Child Psychology*, *1*(4).

Piaget, J., & Cook, M. (1952). *The origins of intelligence in children* (Vol. 8, Issue 5). International Universities Press New York.

Sadker, David., Sadker, Myra., Zittleman, K. (2009). *Still Failing at fairness:How gender bias cheats girls and boys in school and what we can do about it.* 136–173.

Safuwan, B. S. (2017). *Mediating effect of organisational support on the relationship between individual and environmental factors and acceptance of change among administrators in Malaysian public service*. University Putra Malaysia.

Shen, J., D'Netto, B., & Tang, J. (2010). Effects of human resource diversity management on organizational citizenship behaviour in the Chinese context. *The International Journal of Human Resource Management*, *21*(12), 2156–2172.

Shirin, R., & Kihara, J. (2013). Equal Participation of Women and Men in Decision-Making Processes, with Particular Emphasis on Political Participation and Leadership. In *United Nation Division for the Advancement of Women* (Vol. 32, Issue 1). https://doi.org/10.25148/etd.FI10022504

Shortall, S. (2014). Farming, identity and well-being : managing changing gender roles within Western European farm families. In *Anthropological Notebook* (Vol. 20, Issue 3, pp. 67–81).

Shoshana, G. (2011). Independent Individual Decision-Makers in Household Models and the New Home Economics. In *Household Economic Behaviors, International Series on Consumer Science*. https://doi.org/10.1007/978-1-4419-9431-8

Simon, M., & Kim, T. A. D. (2016). Vygotsky's sociocultural theory in the context of globalization. *Asia Pacific Journal of Education*, *37*(1).

Sumita Parmar, R. S. P. (1996). *Gender Socialization Module: Gender from a developmental perspective*.

Sylvester, A. S., & Ekpenyong, A. B. (2014). National Poverty Eradication Programme and Poverty Reduction in Nigeria : Empirical Investigation of the Programme Impact in Cross River State. *International Journal of Human Resource Studies*, *4*(3), 269–279. https://doi.org/10.5296/ijhrs.v4i3.5629

Taherdoost, H. (2018). Validity and Reliability of the Research Instrument. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3205040

Turuk, M. C. (2008). The relevance and implications of Vygotsky's sociocultural theory in the second language classroom. *Arecls*, *5*, 244–262.

UNESCO, B. (2007). Strong Foundation for Gender Equality in Early Childhood Care and Education. In *Unesco*.

UNESCO, I. (2019). *Mainstreaming Early Childhood Education into Education Sector Planning: The rationale for investing in Pre-primary*.

UNICEF, N. (2018). *UNICEF 2017 Annual Report on Nigeria*.

https://www.unicef.org/about/annualreport/files/Nigeria_2017_COAR.pdf

Vygotsky, L. S. (1978). Socio-cultural Theory. In *Mind in society*. Harvard University Press Cambridge, MA.

Yamane, T. (1967). *Research Methods: Determination of Sample Size*.

Zumilah, Z. (2010). *Indicators of Micro Enterprise Development for Small Family Business in Rural Peninsular Malaysia*. University Putra, Malaysia.