Urban-Rural Disparities in Achievement at the Basic Education Level: The Plight of the Rural Child in a Developing Country

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Abstract

This paper is just a sample template for the prospective authors of IISTE Over the decades, the concepts of Academic achievement provides a generally accepted indicator for measuring the performance or efficiency of any education system. To this effect, most developing nations including Nigeria conduct national assessment of learning achievement at the basic education level periodically to monitor the efficiency of their educational systems. Evidence from such assessments from five South –Eastern states of Nigeria indicates glaring urban-rural disparities which tilt against the rural child in all the areas of learning achievement. This paper therefore examined these disparities in the context of the underlying factors to portray the plight of the rural child in a developing nation who is educationally disadvantaged. The paper argued that this phenomenon which is a reflection of the neglect or marginalization of our rural communities and schools will, if unmitigated, have adverse effects on the development of rural communities in these nations. It thus underscored the necessity for an urgent and well-articulated pro-rural development strategy that will include a well-funded Rural Education Programme in developing nations.

Keywords: urban-rural disparity, environment, field theory, rural area, monitoring of learning achievement, social exclusion, economic exclusion, disparity analysis

1. Introduction

Education is the cornerstone of every sustainable national development. This fact has received expression in many national policy and development plan documents of developing nations including Nigeria. For instance, the National Policy on Education (Federal Republic of Nigeria, FRN, 2004) clearly portrayed education as "an instrument per excellence for national development". This is more succinctly articulated in the Nigeria Vision 20-2020 First National Implementation Plan (National Planning Commission, 2010) which stated thus:

> "Education constitutes the core of human development. It opens up opportunities for both individual and group empowerment. It is a vital tool for transformation and the key to the sustainable development of a nation. Human capacity development anchored on strong learning systems is central to the attainment of Vision 20-2020. Education is the most crucial instrument for empowering young people with knowledge and skills which in turn provide them access to productive employment in future".

Given the strong link between education and sustainable development, it can be argued that the performance of a nation's education system will be a good and unbiased predictor of the level of development of that nation. The same argument can validly be applied to the sub- educational systems of the constituent states or regions in a nation and their levels of development. In other words if the sub education system in a given state or region in a country such as Nigeria is not performing well, the development of such a state or region will adversely be affected. Indeed, the Nigeria Vision 20-2020 Report (National Planning Commission, 2009) recognizes education as ' a basic human right and critical element in human development'. According to the report, 'the aim of the NV20:2020 is to ensure that all boys and girls, irrespective of ethnicity, gender or disability, complete a full course of basic education - 12 years of formal education consisting of 3 years of Early Childhood Care Development and Education (ECCDE), 6 years of primary schooling and 3 years of junior secondary schooling".

The import of the foregoing is that a strong educational foundation defined in Nigeria by basic education is a sin-a-qua-non for the realization of the nation's vision of becoming a key player in the global economy by the year 2020. Such a strong foundation is possible only with an efficient basic education system. In realization of this, Nigeria joined other developing nations in institutionalizing a mechanism for monitoring the performance of the basic education system on a periodic basis (Federal Ministry of Education, FME, 2004).

The performance or overall efficiency of an education system is measured by a number of criteria or

indicators referred to as 'Education Performance Indicators (E.P.I). One of such indicators for assessing the performance of any education system is academic achievement of the learners which is also referred to as learning achievement. Learning or academic achievement indicates the level of a learner's attainment of the knowledge, skills and attitudes prescribed for a certain course, programme or level of education (Nworgu, 2003). It is indeed a measure of the empowerment or capacity an individual acquires from an education system. It is the quality of this capacity or empowerment that determines the access to productive employment and thus an individual's level of contribution to national development. Hence all children irrespective of place of residence (environment), sex or ethnicity should acquire that level of capacity or empowerment that will make them productive members of the society. To the extent that a group or sub-group is disadvantaged in terms of academic achievement, to that extent will such group or sub-group be limited in its capacity to participate in or contribute to productive employment and by implication to national development. In other words, any disparities in academic achievement in whatever form they manifest are potential sources of social and economic exclusion. Hence disparity analysis of educational measures or E.P.I's has become an important focus in contemporary education and development research because of its policy value.

1.1 Purpose

The purpose of this study therefore was to examine the available data from a national assessment of learning achievement at the basic education (primary) level in the core Igbo-speaking states with particular focus on urban-rural disparities and from the resultant evidence, highlight the state of educational deprivation which the rural Igbo child suffers as a result of his/her environment.

2. Conceptual Framework and Theoretical Framework

2.1 Conceptual Framework

For the purpose of clarity, the terms - 'urban' and 'rural' need to be defined operationally defined. Generally, attempts to define these two terms follow three perspectives. The first perspective is the subjective or perceptual. In this case urban or rural area may be defined in terms of their visual components. This is the case when the definition of urban or rural area is based on the facilities or services (e.g. electricity, market, water, tarred roads etc) available in a place. The second perspective is the objective or quantitative. This perspective uses quantitatively determined criteria in defining urban or rural areas e.g. population size of a place. The third perspective is definition by exclusion. In this perspective, when one of the terms is defined, the other term is defined by exclusion from the defined term. For instance, having defined urban area, a rural area is now defined as any place or area that is not urban.

Different countries or regions of the World tend to define the terms 'urban area' and 'rural area' in different ways. For instance, in UK urban areas are places with 26% or more of its population living in a market town or settlement with 2,500 or more persons. That means areas with less than 26% of its population living in a market town or a settlement with less than 2,500 persons are considered rural areas.

In Nigeria, an urban area is defined as an area with a population size of at least 20,000 persons (Aluko, n.d.). By the principle of exclusion therefore, a rural area is a place with a population size of less than 20,000 persons. In addition, they are remote areas outside the seat of government (federal, state or local government) with very few or no infrastructural facilities where the major economic activity is largely agricultural production (National Open University of Nigeria, 2008).

In spite of the fact that there is a growing tendency towards urbanization, the majority of the Nigerian population still resides in the rural areas (UNESCO, 2009), which suffer from copious economic, social, political and geographical deprivations (Onokerhoronye, 1978). The impact of rural deprivations or neglect is pronounced and is manifest in severe rural poverty, poor health services, poor educational services, lack of safe drinking water, poor road networks and lack of communication facilities.

2.2 Theoretical Framework

This paper leans on the strand of social psychological theory propounded by Lewin (1951) on the relationship between behaviour or learning and environment known as *field theory of learning*. According to Lewin's field theory of learning, individuals exists in a dynamic field of forces and his/her behaviour is determined by the *field*

that exists at the time of occurrence of the behavior. Field is defined as "the totality of coexisting facts which are conceived of as mutually interdependent" (Lewin ,1951:240). The field is the life space which contains the person and his or her socio-psychological environment which includes where the person is physically, the people, objects, and events the person comes into contact with and his or her feelings and actions towards such people, objects and events (Daniels, 2012). Therefore human behaviour is a "function of both the person and the environment in which behaviour takes place, including social parameters" (Theories of learning in educational psychology , 2012). The social environment is seen as a dynamic field which impacts on the mental states of the individual to shape his or her behaviour. In other words, behaviour is a result of the interaction of the personal characteristics of an individual and the immediate social situations or environment. This theory can be represented symbolically thus:

$B = f (P, E)$ where

B is 'bahviour'

F is 'function of'

P is 'person'

E is Environment

Within this theoretical framework, environment is seen as a portent factor that shapes human behavior including learning. In the educational context, this means that learning achievement in terms of level and quality will depend not only on the learner's cognitive or intellectual ability but also on the quality of his/her environment. In Nigeria, a recent meta-analytic study (Nworgu and Ajuar, 2100) of 44 published and unpublished studies on the influence of environment on academic achievement lends support to the validity of this theory.

3. Methodology

3.1 Design

This study from which the data used in this study were extracted was a national survey of learning achievement. It was a national assessment of learning achievement of primary four and six pupils in the three key areas of learning or subjects namely, Numeracy (Mathematics), Literacy (English) and Life Skills.

3.2 Sample and sampling technique

The survey covered a total of 1,036 schools from the 36 states and the Federal Capital Territory (FCT). Using a multi-stage stratified proportionate random sampling, 28 schools were sampled from each state and 14 schools were sampled from the FCT. The number of pupils sampled from each of the two grades (i.e. primaries 4 and 6) ranged from 22 to 28. The sampling of schools was done in such a way as to reflect the proportionate size of the various strata (urban-rural and public-private) of which the population was composed.

3.3 Instrumentation

The assessment was based on three core areas of learning – numeracy, literacy and life skills and the instruments used for collecting the data these areas of learning or subjects were developed using a participatory or co-operative framework involving teachers from various states, inspectors, staff of Examination Departments of various State Ministries of Education, National Examination Agencies and Measurement and Evaluation Experts. The assessment instrument for each area of learning comprised 50 items which covered the first three levels of cognition in Bloom's taxonomy. The instruments were administered nationwide in June/July 2003 by trained data collectors.

3.4 Source of Data

The present study used the data for the five south-eastern states of Nigeria comprising Abia, Anambra, Ebonyi, Enugu and Imo states. The data were extracted from the national data set as published in the National Report of the 2003 Monitoring of Learning Achievement (MLA) Project (FME, 2003).

3.5 Data Analysis

The data which were originally analysed using the mean and standard deviation were for the purpose of the

present study, re-analysed using the t-test of difference between independent samples (Nworgu, 2006) in order to determine whether the observed urban-rural differences were statistically significant at 5% level of probability.

4. Result

The results of the urban-rural disparity analysis of the mean achievement scores of primaries four and six pupils from the five core Igbo-speaking states in the three areas of learning – Numercay (Mathematics), Literacy (English) and Life Skills are presented in tables 1-6.

Table 1: Urban-Rural Disparities in Mean Scores of Primary Four Pupils in Numeracy (Mathematics) in Igbo-Speaking States.

State	Urban			Rural			t-test
	X	SD	N	X	SD	N	
Abia	30.33	14.61	305	25.78	15.16	447	4.14*
Anambra	38.77	21.17	156	29.23	16.00	563	5.24*
Ebonyi	20.75	11.69	434	19.18	10.62	225	0.84
Enugu	54.68	22.38	211	46.10	23.18	121	3.32*
Imo	25.27	9.54	88	26.65	14.39	523	-0.88

*significant, $p<0.05$.

The result of the analysis presented in Table 1 revealed urban-rural disparities in learning achievement of primary four pupils in Numeracy that favoured pupils from urban environment in all the states with the exception of Imo state. However, the disparities were statistically significant ($p<0.05$) in three out of the five states – Abia, Anambra and Enugu. Although the disparities in Ebonyi and Imo states were in reverse directions, none was statistically significant. Figure 1 clearly depicts the disparities in the learning achievement of primary four pupils in Numeracy across the five states.
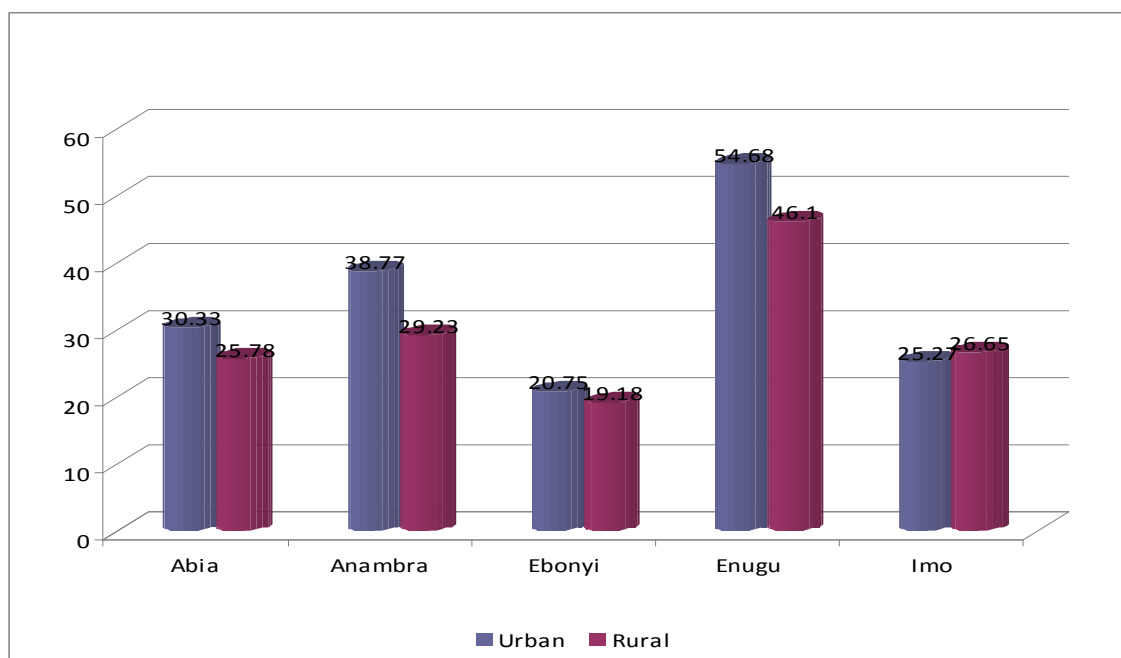

Fig 1: Urban-rural disparity in Primary Four Pupils Achievement in Numeracy (Mathematics)

From Table 2 it could be seen that urban-rural disparities in learning achievement of primary six pupils in Numeracy that favoured pupils from urban environment were detected in all the states with the exception of Enugu State. However, the disparities were statistically significant ($p<0.05$) in three of the states – Abia,

Anambra and Ebonyi. The disparities in Enugu and Imo states were in reverse directions and none was statistically significant. A graphic display of this result is presented in figure 2.

Table 2: Urban-Rural Disparities in Mean Scores of Primary Six Pupils in Numeracy (Mathematics) in Igbo-Speaking States.

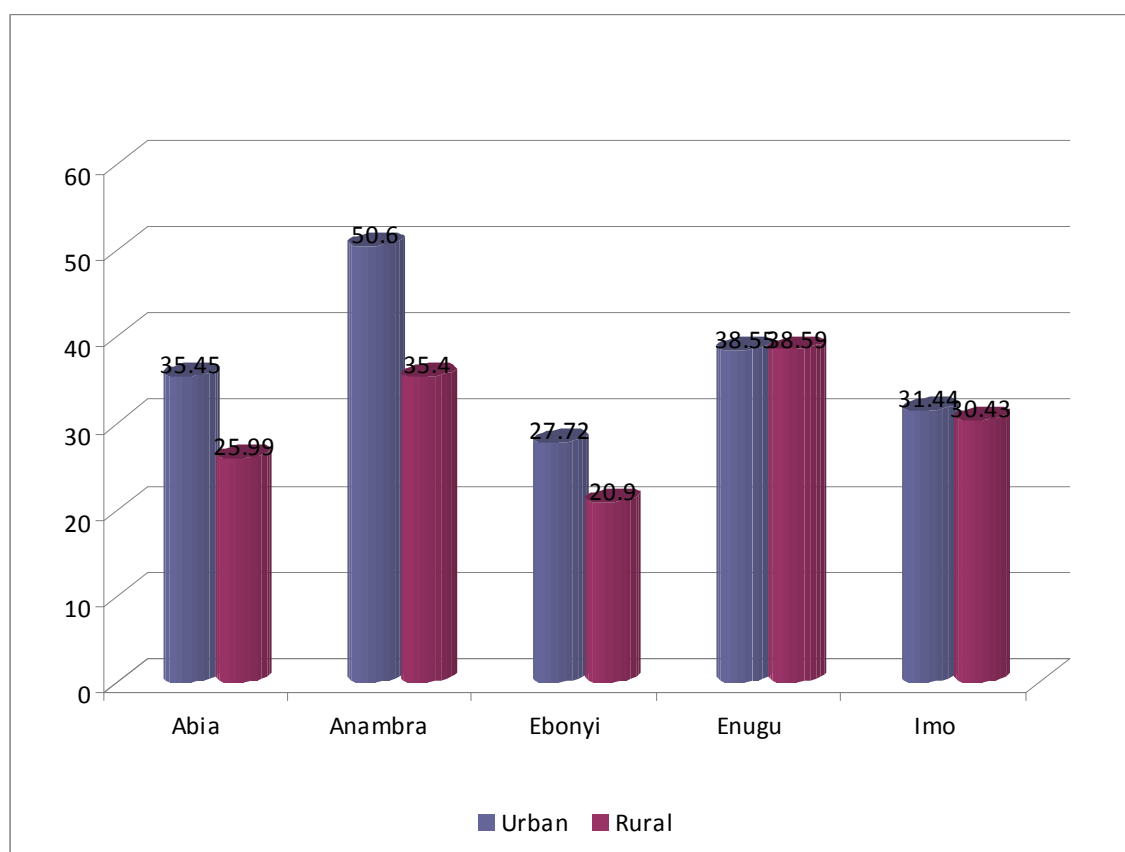| State	Urban			Rural			t-test
	X	SD	N	X	SD	N	
Abia	35.45	14.71	313	25.99	9.16	509	10.28*
Anambra	50.60	20.91	210	35.40	14.42	617	9.81*
Ebonyi	27.72	10.41	339	20.90	8.47	280	11.76*
Enugu	38.55	19.73	178	38.59	18.11	377	-0.02
Imo	31.44	8.96	90	30.43	10.23	539	0.76

significant, p<0.05

Fig. 2: Urban-Rural Disparities in Primary Six Pupils' Achievement in Numeracy (Mathematics)

Tables 3 and 4 present the results of the urban-rural disparities analyses with respect to achievement in Literacy (English) for primaries four and six pupils respectively. The corresponding graphical displays are presented in Figures 3 and 4 respectively. In primary four, disparities in achievement in literacy were prevalent in all the states in favour of the of the pupils resident in urban environment. The observed disparities were statistically (p<0.05) significant in all the core Igbo-speaking states with the exception of Ebonyi state.

Table 3: Urban-Rural Disparities in Mean Scores of Primary Four Pupils in Literacy (English) in Igbo-Speaking States.

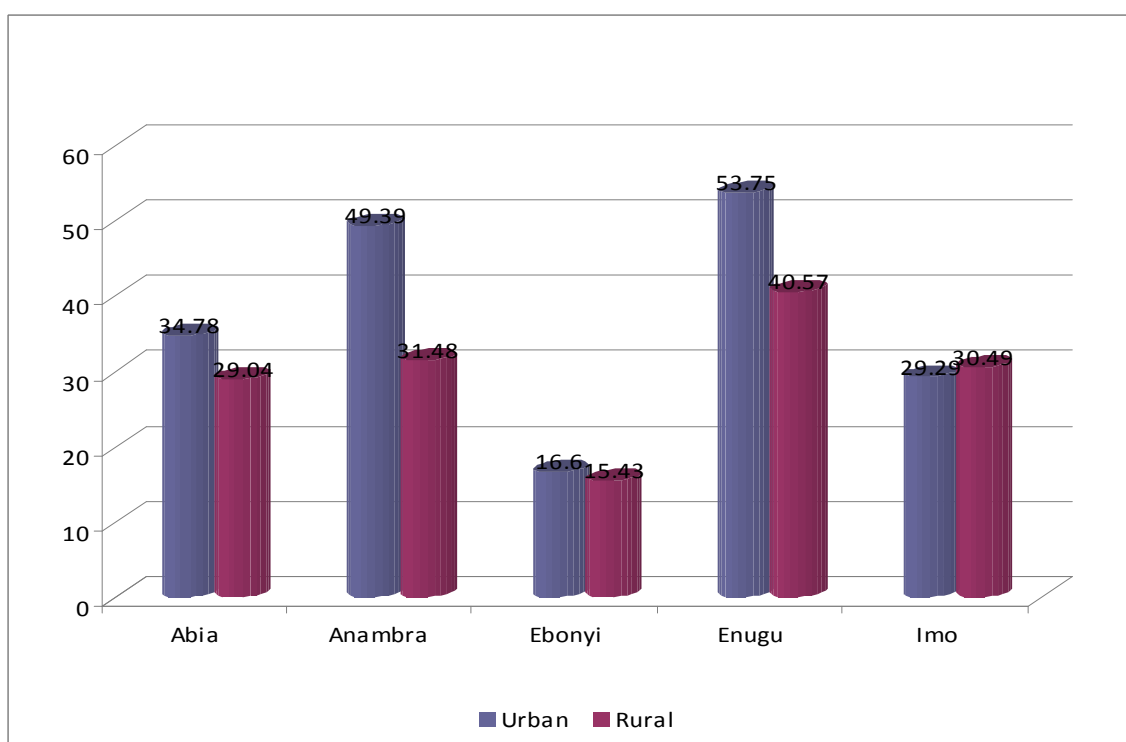| State	Urban			Rural			t-test
	X	SD	N	X	SD	N	
Abia	34.78	22.50	229	29.04	17.47	527	3.44*
Anambra	49.39	19.37	222	31.48	16.30	468	10.71*
Ebonyi	16.60	7.94	372	15.43	7.46	227	1.83
Enugu	53..75	28.50	410	40.57	22.32	174	5.99*
Imo	30.49	18.84	499	29.29	14.39	89	6.90*

Figure 3: Urban-rural disparities in primary four pupils achievement in Literacy (English)

Table 4: Urban-Rural Disparities in Mean Scores of Primary Six Pupils in Literacy (English) in Igbo-Speaking States

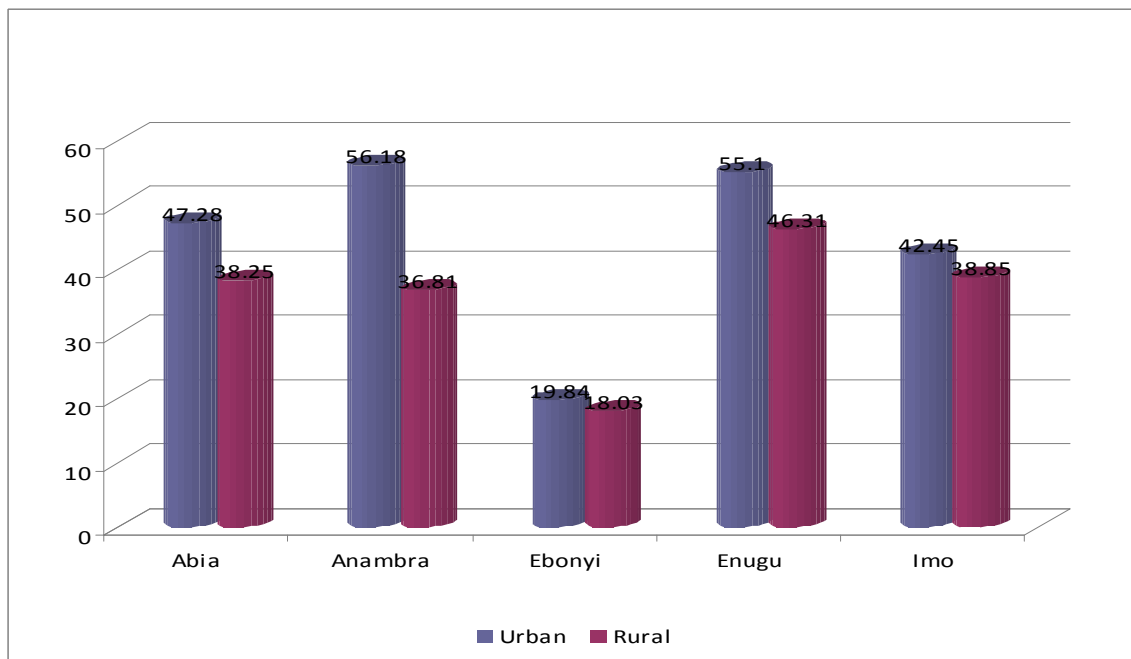|	Urban			Rural			t-test
State	X	SD	N	X	SD	N	
Abia	47.28	20.58	386	38.25	16.39	478	0.90
Anambra	56.18	18.45	196	36.81	16.75	444	12.58*
Ebonyi	19.84	6.45	405	18.03	7.14	235	3.23*
Enugu	55.10	21.13	238	46.31	22.11	140	3.87*
Imo	42.45	16.51	88	38.85	18.45	509	0.96

Fig. 4: Urban-rural disparities in primary six pupils' achievement in literacy (English)

In primary six, disparities in achievement in literacy were prevalent in all the states in favour of the pupils resident in urban environment. With the exception of Anambra and Ebonyi states, the observed disparities were statistically ($p<0.05$) significant in all the core Igbo-speaking states.

Table 5: Urban-Rural Disparities in Mean Scores of Primary Four Pupils in Life Skills in Igbo-Speaking States

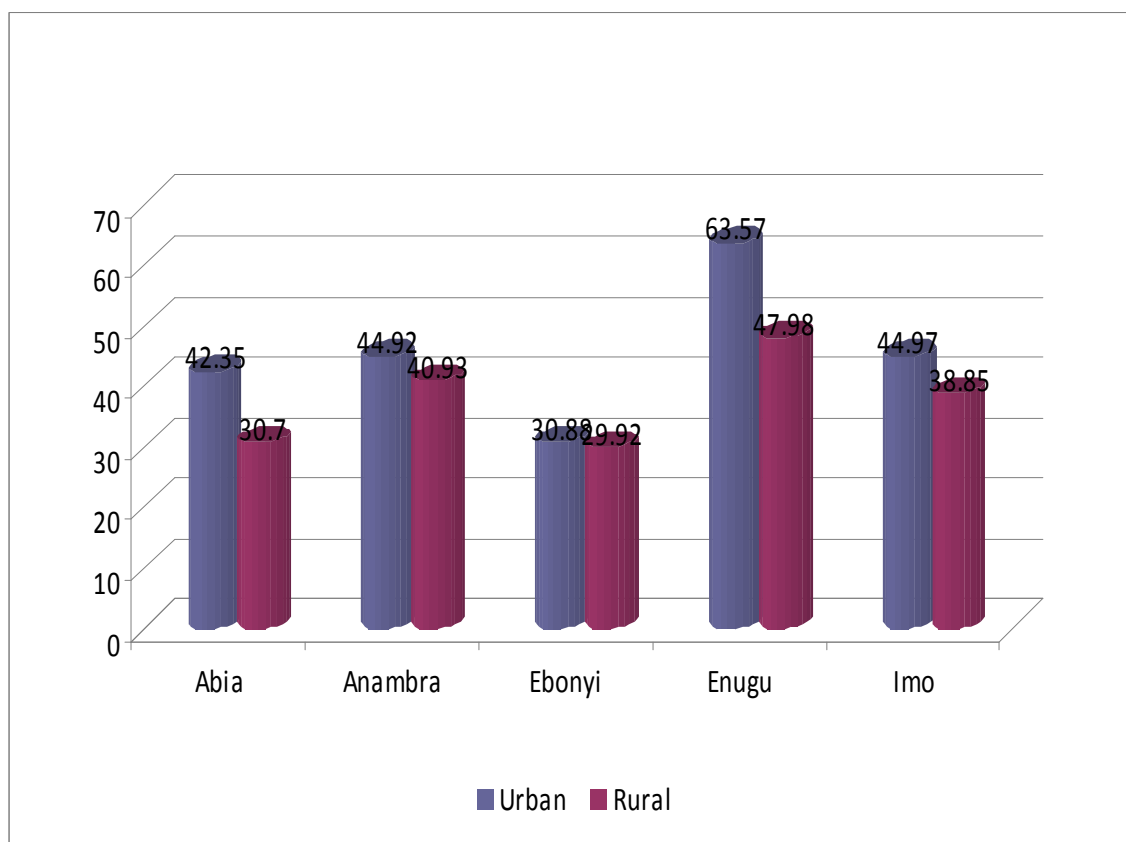| State	Urban			Rural			t-test
	X	SD	N	X	SD	N	
Abia	42.35	21.01	293	30.70	17.84	506	5.44*
Anambra	44.92	23.05	210	40.93	22.01	483	1.13
Ebonyi	30.88	17.76	325	29.92	16.69	181	0.38
Enugu	63.57	25.77	268	47.98	25.05	150	6.04*
Imo	44.97	16.61	90	36.44	20.69	493	4.31*

Fig. 5: Urban-rural disparities in primary four pupils' achievement in life skills (English)

The results of the urban-rural disparities analyses with respect to achievement of primaries four and six pupils in Life Skills are presented in Tables 5 and 6 and the corresponding graphical displays in figures 5 and 6 respectively.

Table 6: Urban-Rural Disparities in Mean Scores of Primary Six Pupils in Life Skills in Igbo-Speaking States

	Urban			Rural			t-test
State	X	SD	N	X	SD	N	
Abia	31.02	15.05	300	25.26	7.40	450	6.19*
Anambra	26.29	5.92	169	25.19	6.32	265	1.83
Ebonyi	24.46	6.48	148	23.85	5.92	87	0.73
Enugu	27.14	6.28	103	25.29	6.57	114	2.13*
Imo	26.61	5.56	90	23.98	7.05	540	6.12*

The results indicated that in primary four, there were disparities in the mean achievement of the pupils in Life Skills in all the states which favoured urban residents. The disparities were statistically ($p < 0.05$) significant in all the states except Anambra and Ebonyi states. Similarly disparities were observed in the mean achievement of primary six pupils in Life Skill in all the states in favour of urban residents. These disparities were statistically ($p < 0.05$) significant in Abia, Enugu and Imo and not in Anambra and Ebonyi states.
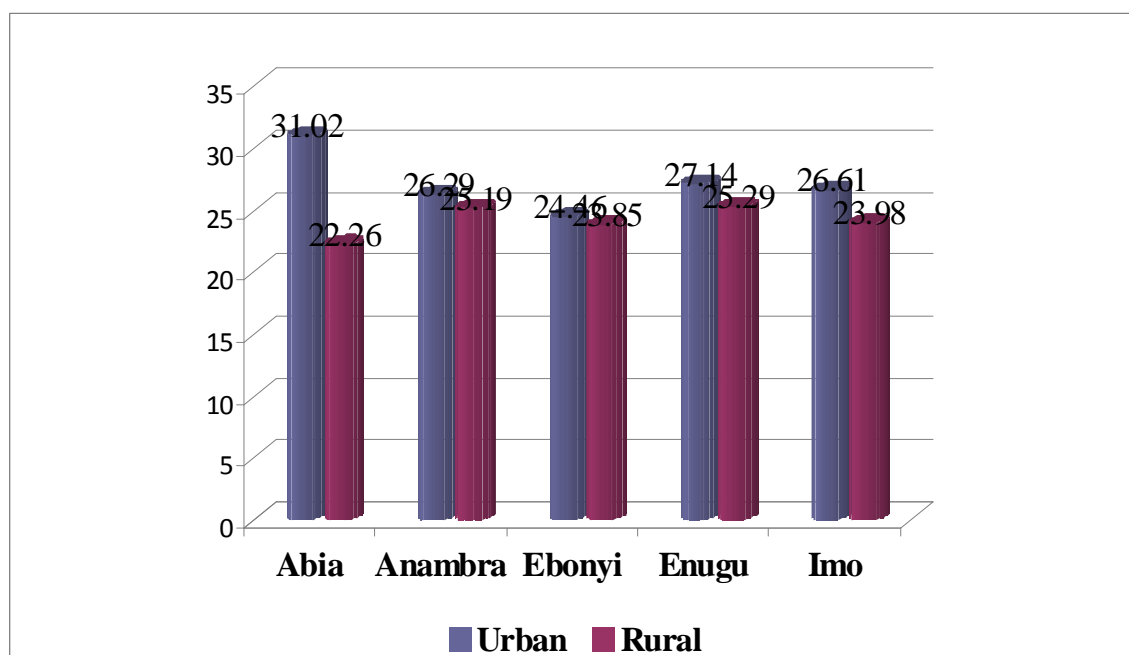
Fig 6: Urban-rural disparities in primary six pupils' achievement in life skills

5. Discussion

From the foregoing it is evident that at the basic education (primary) level, rural children from tend to lag behind their urban counterparts in all key areas of academic achievement. Over the years, several studies have investigated the influence of environment on academic achievement. Although there may be a few studies with discrepant results, in general, the results of these studies on the influence of environment on academic achievement tend to indicate that the environment influences academic achievement. Indeed, in the Nigerian context, the findings of a recent meta-analytical study (Nworgu and Ajuar, 2010) lend credence to this fact. The influence of environment on human behavior in general and academic achievement in particular can be explained from the perspective of Lewin's field theory of learning (Cartwright, 1951) which postulates that behaviour or learning is determined by the interaction of the mental states of an individual and the environment. This implies that if two groups of learners are of same mental or intellectual state but their environmental conditions or parameters are different, the two groups are bound to differ in terms of academic achievement which is a measure of learning. In this context, the urban and rural areas in the developing countries differ markedly in terms of the operating environmental conditions or parameters. The rural areas suffer glaring deprivation in terms of social infrastructure and services. According to Yusuf and Ukoje, (2010), this phenomenon of rural deprivation or neglect is evident in education, health, roads, water, electricity etc. In the particular case of Nigeria, the situation was aptly described by IFAD (2012) thus:

> Rural infrastructure in Nigeria has long been neglected. Investments in health, education and water supply have been focused largely in the cities. As a result, the rural population has extremely limited access to services such as schools and health centres, and about half of the population lack access to safe drinking water.

The same situation prevails at the school level. The available schools in the rural areas are neglected to the extent that schools with dilapidated walls with dusty floors and profusely leaking or blown-off roofs are common sights in the rural communities. Resource provisions both material and human for these rural schools are grossly inadequate compared to the urban schools. It is a well known fact that well qualified and experienced teachers resist posting to rural areas thus leaving the rural schools with few and the least qualified and inexperienced teachers.

The severe poverty level in the rural areas tends to compound the situation. It is estimated that about 80% of the rural population in Nigeria live below poverty line (IFAD, 2012). What this means is that the rural

parents or families are unable to provide their children with such an environment that can enhance or stimulate their academic work. Besides this, such children are normally distracted by their engagement in different forms of agricultural or income-earning activities in order to support their family economies. It is in the gamut of these prevailing environmental parameters that tilt against the rural child in a developing country such as Nigeria that the observed urban-rural disparities in achievement in the core areas of learning at the basic education level are embedded.

5.1 The Plight of the Rural Child in a Developing Country

The rural child in a developing country is no doubt subjected to environmental deprivation at the community, home and school levels. This manifests in disparities between the rural child and his/her urban counterpart in academic achievement as well as in health status and general living conditions. In other words, by virtue of his/her residence, the rural child in a developing country suffers from limited educational progress. Consequently, he/she will have limited opportunities for higher education which will in turn limit his/her chances of employment. In more specific terms, the rural child in a developing country is less likely to :

- develop interest in schooling and to attend school regularly
- gain admission into tertiary institutions and if he/she does, it is less likely to be one of the so-called lucrative courses such as medicine, pharmacy, engineering and law which require high scores in the Matriculation Examinations
- gain admission into Federal Universities where the facilities are far better yet the fees are more affordable.
- secure employment and even if he/she secures employment, it is less likely to be a high-earning employment
- contribute to the development of the society.

Considering the size of the rural population in these countries, any situation that limits the educational progress of the rural child poses a serious threat to the social, economic and political development of the developing countries. An educated population is an asset and indeed the most valuable resource for the social, economic and political transformation of any society. This is because education is key to human development which according to United Nations (UN, 2010:4) is "the process of enabling people to develop their full capabilities, thereby enlarging their choices as to what they can do in their lives and how they can participate in the development of their society". In effect, the rural Igbo child is circumscribed by his environmental parameters in terms of his/her level of participation in the social, economic and political development of the Igbo society and this is to the detriment of the Igbo nation at large.

6. Conclusion

From the foregoing, it is evident that substantial urban-rural disparities do exist in the academic achievement of pupils at the basic (primary) education level in the south-eastern states of Nigeria – a developing country. These disparities tend to cut across grade levels and areas of learning i.e. subjects. In general therefore, rural children from these states tend to lag behind their urban counterparts in all key areas of the curriculum. These disparities are rooted in the quality of the environmental parameters associated with the urban and rural areas of the developing countries. The rural areas suffer abject neglect in terms of social infrastructures and services and are also characterised by severe poverty caused by "varying degrees of geographical, social and political isolation (Okokerhoroye, 1978). Thus the neglect of the rural areas in the developing countries has created an environment that makes the rural child in such countries vulnerable by limiting his//her educational progress and *ipso facto* his latitude of participation in the development of the society. This is the plight of the contemporary rural child in a developing country that needs to be redressed.

7. Recommendations

Redressing the plight of the rural child in a developing country such as Nigeria as highlighted in this paper calls for strategies and programmes that will transform the basic parameters of the rural environment in order to make

them comparable to those in the urban areas. In this regard, we recommend as follows:

- A paradigm shift in the approach to rural development – The current approach to rural development in the developing countries essentially focuses on encouraging agricultural production without transforming the rural areas in a significant manner. To this extent, it makes the rural areas more rural and has therefore failed in improving the living conditions of the rural people thereby increasing migration tendencies from rural to urban areas (Iruonagba, n.d). There is need therefore for a shift (USAID, 2012) to an integrated rural development paradigm that will combine agricultural development with provision of basic rural infrastructure and services, knowledge and economic empowerment within a sustainable framework (Nwokocha , 2012).

- Sound Policy and Institutional Framework- As an integral part of this paradigm shift, developing countries should put in place a sound policy and institutional framework for integrated rural development. One obvious weakness of the current approach to rural development is weak or absence of sound policies and institutions.

- Rural Education Project (REP) – The state of education in the rural areas in the developing countries calls for an urgent attention. A well funded special intervention in the form of a "Rural Education Project (REP)" is long overdue and should therefore be pursued with vigour by every developing country. If gender disparities in schooling could attract gender-based interventions both locally and internationally, why should the same priority not be accorded to urban-rural disparities in schooling when in fact, available evidence tends to suggest that the impact of environment on schooling is more severe than that of gender (UNICEF , 2011)

- Incentives for Rural Teachers – One critical area where rural schools are seriously disadvantaged is in the quantity and quality of teachers. Most teachers resist posting to rural areas because of the absence of social infrastructure and services in these areas. The only way to attract and retain the right quantity and quality of teachers in the rural areas is to offer them special incentives such as staff quarters, rural teacher allowance, vehicle loans etc.

- Affirmative Action Programmes for Rural Children – The import of the results of this result is that rural children are disadvantaged when it come to academic achievement due to poor environmental conditions and not necessarily due to lack of cognitive competence. This reduces their chances to compete favourably with their urban counterparts who are at the same level of cognitive competence. This disadvantage should be taken into cognizance in selecting candidates for admission into tertiary institutions as well as for employment in the developing countries..

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