

Review

Interdisciplinary Research as a Panacea for Sustainable Development in Nigeria: Implications for Counselling

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There is a paradigm shift from research based on a single discipline or sub-discipline to interdisciplinary research which is defined as a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and / or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline. Most of the hot topics of today are interdisciplinary in nature and, similarly, most of the great research triumphs are products of interdisciplinary research. The writer argues that Nigeria's developmental problems can be better solved if subjected to interdisciplinary research. There is so many whys that cries for explanation and such explanations must draw from the knowledge embedded in two or more disciplines. Using mono-disciplinary approach cannot unfathom the reasons behind the "whys" and "hows". Problems can and invariably, do cut across the borders of any subject matter or discipline. The paper therefore recommends interdisciplinary research and explains the role of the guidance counsellor in fostering it.

Keywords: Interdisciplinary Research; Sustainable Development, Guidance and Counselling.

INTRODUCTION

Development as a concept has attracted many definitions and social scientists have diverse slants to its meaning. However, there is a general consensus that development will lead to good change resulting in increased capacity of people to have control over material assets, intellectual resources and ideology; and obtain physical necessities of life (food, clothing and shelter), employment, equality, participation in government, political and economic independence, adequate education, gender equality, sustainable development and peace (Igbuzor, 2009). This largely agrees with what Udoidem (1992) had identified as the general indices of development. They are;

- a reduction of the level of unemployment;
- a reduction of the extent of personal and regional inequality;
 - a reduction of the level of absolute poverty;
 - a rise in the real output of goods and social services and the improvement of the techniques of production;
 - Improvement in literacy, health services, housing conditions and government services.
 - Improvement of the level of social and political consciousness of the people; and
 - greater ability to draw on local resources to meet local needs that is, becoming self-reliant.

When these indices begin to manifest in a given society one can say that development is taking place. These changes can only come about if government is manned by men and women with vision and political will. Hence one agrees with Ake (2001) that development is "something that people must do for themselves" although it can be fast-tracked by assistance from others. Development is one essence of good governance and the third world countries, including Nigeria, lack both, that is, good governance and development.

One way of ensuring continuity in development or achieving sustainable development in a society is by increasing member's capacity to deal with the environment. This view is shared by Rodney (1972) when he argued that in dealing with the environment men must understand the laws of nature (science) and be able to put that understanding into practice by developing appropriate tools (technology) and also understand the manner in which work is organized (power relations). These tripartite efforts are largely dependent on the society's ability to engage in robust research aimed at discovering the laws of nature, developing tools and having a mastery of power relations. This paper attempts to look at what is interdisciplinary research why

interdisciplinary research and also examines the role of the guidance counsellor in it.

Interdisciplinary Research

Simply put, interdisciplinary research (IDR) is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts and / or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice (National Research Council, 2005). This is different from the old practice where issues and problems are tackled using the knowledge of one discipline or sub-discipline to predict or explain behaviour in nature, individuals, and society.

Why Interdisciplinary Research?

A number of reasons can be advanced for the preference for interdisciplinary research as against the old practice of research being undertaken by an individual researcher using the limited knowledge of a discipline or sub-discipline.

Trewhella (2009) explained that preference for interdisciplinary grew because nature and society are complex, and our innate curiosity to understand the elements and forces within them requires examination from perspective of multiple disciplines. Trewhella explained further that there is a critical need to solve societal problems in a world that is governed and influenced by many forces. Humanity's focus now is on climate change and, in understanding it, one must consider how oceans and rivers are influenced by land use and the products of industrialization, atmospheric constituents and solar radiation. These subsystems are linked in time and space and have embedded in them multiple feedback mechanisms. She therefore concluded that the complexity presented in issues such as climate change, globalization, power relations and so on requires interdisciplinary research that spans the natural and social sciences if man is to attain the kind of predictive capability that could inform policy makers.

Trewhell's view is shared by the National Research Council (United States of America) which argued in 2005 that in recent decades, the growth of scientific and technical knowledge has prompted scientists, engineers, social scientists and humanists to join in addressing complex problems that must be attacked simultaneously with deep knowledge from different perspectives. The body supported this by asserting that many of today's "hot topics" like nanotechnology, genomics and proteomics, bioinformatics, neuroscience, conflict, and terrorism are interdisciplinary. They went further to claim

that many of the great research triumphs like discovery of the structure of DNA, magnetic resonance imaging, laser eye surgery, radar, and manned space flight are products of interdisciplinary inquiry and collaboration.

Interdisciplinary Research For Nigeria's Sustainable Development

Nigeria, like most of the third world countries are beset by a lot of developmental problems. The National Economic Empowerment and Development Strategy (NEEDS) authored by Nigeria's National Planning Commission in 2004 identified the challenges to development in Nigeria to include, among other things, low per capita growth; inefficient, highly volatile and unsustainable public sector spending; domestic debt; low productivity poverty; dysfunctional educational system and weak institutions. Others added in the draft of NEEDS 2 (2007) include high level poverty; poor infrastructure; poor energy situation abuse of human rights; gender in equality; weak institution; capacity constraints; weak monitoring framework; weak data management culture; slow development of the private sector; poor public sector performance; ethnic and religious conflicts; desertification; and import dependency. Other developmental challenges have been identified by other sources like Ake (2001) but when collapsed are really saying the same thing as the NEEDS document. The new addition by Ake is that "the greatest impediment to development" in Africa is the political conditions.

Having identified the constraints to development in Nigeria, one can then ask how can interdisciplinary research be used to bring about sustainable development? Sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland Report, 1987)". Although the NEEDS document of 2004 and NEEDS 2 (2007) have identified the challenges of Nigeria's development, one wonders which of the multitude of problems should attract foremost attention. In other words, where does one begin? Seers (1969) gave a clue to this when he argued thus:

The questions to ask about a country's development are therefore: what has been happening to poverty? What has been happening to unemployment? What has been happening to inequality? If all three of these have declined from high levels, then beyond doubt this has been a period of development for the country concerned. If one or two of these central problems having been growing worse, especially if all three have, it would be strange to call the result 'development' even if per capital income doubled (Seers, 1969).

Much as Seers has assisted in charting a path, one wants to add that the issue of corruption and ethnic prejudice are equally important to Nigeria's development

and that of other third world countries. How can interdisciplinary research assist in combating these challenges that make Nigeria's beggars in the midst of plenty? Igun (2008) painted Nigeria and Nigerians better when he opined that Nigeria is seen as a pathetic paradox; "so rich and yet so poor; so endowed and yet so mismanaged; so much potential and yet so prodigal". How does the country come out of this mess? Solutions to these problems cannot come from the views or prescriptions of one man with his limited knowledge dictated by his exposure to just a discipline or even sub-discipline. They require an interdisciplinary research approach. Take for example the issue of poverty. It is not a subject that the economist can handle alone and expect that he can x-ray it in all its ramifications. He can tell Nigerians the differences in their educational level, their occupations, income, productivity and why one person earns more than the other or that one region is more productive than the other. These facts must rest on other strong facts from other disciplines. The geographer, the sociologists and the political scientist must come to his rescue for the economist's arguments to be well founded. Why is it that the north is considered economically poorer than the south? What cultural forces are at play that lead to such conclusion? If one must understand why the north is considered poorer than the south then one must invite the educationist to explain why access to education is more in the south than in the north; why more school enrolment in the south; why more female enrolment in the south than in the north; why more attrition rate (especially female attrition rate) in the north than in the south? The historian must come in to explain the development of western education in the two regions leading to educational imbalance between the north and the south. Similarly, the sociologists must explain why religion and culture are so intertwined in the north than in the south; why girls marry at an earlier age (and therefore abort their educational career) in the north than in the south. The political scientist has to give some insight into why the north did not embark on free universal primary education the same time as the south; why there are more private universities in the south than there are in the north. There are so many whys that need to be explained which goes beyond the knowledge of a single discipline or sub-discipline. It requires the concerted effort of virtually all the social scientists to x-ray the problem and arrive at reasonable judgement and therefore reasonable solution.

One can also look at the issue of ethnic prejudice. How come the various ethnic groups are unable to accommodate or tolerate one another? It is as if the exit of the colonialists blew the whistle for ethnic wrangling. In Nigeria, the Hausa/Fulani had it with the Igbo and this culminated in the Nigerian civil war of 1967 – 1970. How can one seek to explain the civil war relying on the discipline of history only? More importantly how can one talk of nation – building in Nigeria without recourse to the

entire social sciences? Why are the various ethnic groups at each other's throat? Why has ethnic rivalry assumed religious and political colouration? Why do peace plan between and among the ethnic groups breakdown easily? Why are the ethnic groups suspicious of each other? Why so much hatred? Why so much bitterness? Why so much prejudice? Why so much intolerance? Using a mono-disciplinary approach cannot unfathom the reasons behind these issues; it is an interdisciplinary approach that can unravel the facts behind the problem. It was Popper (1963) who asserted that:

We are not students of some subject matter, but students of problems. And problems may cut right across the borders of any subject matter or discipline (Popper, 1963:88).

The above extract demonstrates that problems can only be profitably tackled if the interdisciplinary research approach is adopted. To do the contrary is unrewarding and unfulfilling. Interdisciplinary research is one of the most productive and inspiring of human pursuits – one that provides a format for conversations and connections that lead to new knowledge (National Research Council, 2005).

The Role of the Guidance Counselor

To achieve the above and to ensure sustainable development in Nigeria, the guidance counselor has some roles to play. First, the guidance counsellor, who has the duty of counseling students on subjects to study, and therefore courses to read, must encourage them to take on as many subjects as possible especially those that interest them. In the secondary schools and universities, students are hesitant taking on extra subjects or courses especially elective courses. They must be encouraged to do so as all knowledge is useful. In the same vein, parents should be counseled to let their children and wards take to courses that appeal to them and not those that appeal to the parents. One thing that makes research a fulfilling endeavour is the interest one has in the problem which derives from interest in the discipline. The more people are encouraged to read courses of interest the more committed they will be to future pursuits in the discipline or related disciplines.

Thirdly, guidance counselors should begin to embrace interdisciplinary approach to problems that counselees present to them. He does not counsel a child with maladaptive behaviour without investigating the nature-nurture dimensions of the individuals. The combined knowledge of psychology, sociology, biology, history and so on can be very beneficial in handling the issue. The counsellor cannot handle family issues as in family counselling without a combined knowledge of the social sciences and humanities and that is interdisciplinary research approach.

Fourthly, the guidance counsellor, while encouraging the students in his/her care to read widely, he/she must also read widely and patronize the e-library so that his/her knowledge base can be broadened. In this case, any issue brought before him can be viewed in all its ramifications and suitable steps taken to correct the problem being handled. Where his knowledge is deficient and is unable to understand some aspects of the problem or the counsellee, the counsellor must seek the assistance of other experts in related fields (which is interdisciplinary approach) to tackle the problem. At the end of the day, the results are better and credit goes to the counsellor for adopting the right approach.

CONCLUSION

Interdisciplinary research which encourages many experts pooling together their knowledge and resources to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline. This has many advantages that have been explained above. How interdisciplinary research can contribute to Nigeria's developmental strides are discussed and the point was made that interdisciplinary research can help unfathom the issues underlying the problems of development and engaging in meaningful solutions. Finally, the role of the guidance counsellor in encouraging and practicing interdisciplinary research is explained and canvassed. It is believed that this approach will yield better results for both the counsellor and the counsellee.

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