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Cover Page Footnote
This study is an attempt at being critical of the researches done in faculties of education especially in Nigerian universities. These researches though categorised in post graduate schools or colleges as mainly in the liberal arts/humanities and the social sciences depend on the theories and methodologies from these disciplines. Apart from the fact that Arts and Social sciences are disciplines where undergraduates in Education take their teaching courses from for bachelor degrees, post graduate level offers varied opportunities for researches which should make them maximize the uniqueness of mixed method research as peculiar to faculty of education.

Boundaries of Empirical Approaches in Educational Research

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Abstract

This paper critically reviews the research done in education faculties in Nigerian universities. This research, though categorized in postgraduate schools or colleges as mainly in the liberal arts/humanities and the social sciences, depends on the theories and methodologies from other disciplines. The arts and social sciences are disciplines where undergraduates in education take courses in teaching to earn bachelor's degrees, the postgraduate level offers varied opportunities for educational research to maximize the uniqueness of mixed method research for education.

Keywords: Educational research, empiricism, qualitative method, knowledge boundaries, and intellectual humility

Introduction

Research has been one of the processes of educational activity shown in looking out for information and writing, and it is a product resulting in journal articles and text publications. With research, educational activities will become updated. The history of Philosophy points to research that started from the human element of doubt and wonder. It was noted that this generation will not be the last to wonder about our identity (Livengood, 2010). So, research dries up when there is no longer wonder in human beings. Unfortunately, as many researchers age, they may stop questioning and attempt to look at things in new and non-traditional ways (Pecorino, 2017). This paper shifts concerns from rates of enrolment, attrition, and completion of higher degrees, as reported by Kester et al. (2016), to being critical of research methods adopted for research in faculties of education. Hence, the methodology is the critical research method. The general objective is to examine the research methodologies in Nigerian faculties of education critically.

Re-conceptualizing research

Research is a way of investigating a phenomenon. Adjectives such as systematic, orderly, logical, diligent, and organized have been added to the verb investigating to describe it. Falaye

(2018, p. 9) highlights good research as one that: "generates new questions, builds on new facts, is rigorous, systematic, valid, and verifiable and controlled." In other words, research deeply examines a particular pattern or constituent of reality. Research finds out realities and separates them from appearances. There is a need to continuously describe research from the point of view of engaging one another in debate to advance knowledge. Empirical research is a type of research.

Empirical Research

Empiricism claims that sense experience is the ultimate source of all our concepts and knowledge (Stanford, 2004). It rejects intuition, innate knowledge, and reasoning alone but depends on experience. Empiricism can be rooted in positivism, which is characterized by providing the basis for generalization and operationalization that allows the term to be used in a particular context. Empiricism also rests on naturalism, which claims that reality and existence, that is, the universe, cosmos, or nature, can be described or explained only in terms of natural evidence acquired through the senses (Babarinde, 2012).

Empirical research has its values. It states that the specifics can be replicated given the conditions, scientifically justifiable, easily verifiable, conclusive, manageable, and measurable (Omoregie, 2016). It is not without its weakness: the ambition to reduce all matters of reality to the senses. This is impossible since there are facts outside sensory qualities. It can encourage plagiarism, falsification of facts, and contracting of research. Its limitation to a few participants could expose it to hasty generalization (Omoregie, 2012). Research does not have to be democratically determined; a thought can be superior to millions of other thoughts.

Practically, empirical research is getting information based on what others say by administering the questionnaire as an instrument. It aims to pursue objectivity by asking other people questions. It is not as if the investigator is passive in the process. What witness would medical doctors need if they refuse to believe patients' experiences of headaches or stomachaches? When a medical doctor doubts what patients report, then it could suggest a case of mental health. Otherwise, patients are expected to explain what is happening to their health. This does not deny the verification from laboratory tests to confirm what the patient complained about, but the initial diagnosis can only be confirmed from the patient's experience.

The empirical researcher asks questions from other people. The practice is that one can ask questions in ways that restrict other possible answers. For example, if one is asked what his name is, it must be put in the right place to explain why the name is what it is. The truth is that there will be more to a person than just the name. The researcher, collecting information through a questionnaire, remains the determinant of what the answer is likely to be. Questions with closed-ended options only consider other information provided outside the scope of the questionnaire. Although open-ended question items are encouraged to accommodate the qualitative data analysis, how well are they analyzed in educational research?

Educational Research

Some have judged research reports in education to have a low impact on literature. An example of this suggests that "schools of education rank low on the academic totem even when in schools of education more ideas are produced and distributed than in any area of study" (Kneller, 1994, p. 6). This ordinarily should not be the case because of the many fields of education covered. Education remains a microcosm of the university where one may find most of the contents and where teaching methods are learned, taught, and researched. Why is educational research believed as having a low impact?

Research that takes a more qualitative approach, such as the critical and the interpretative, could be neglected. The qualitative approach includes the ability to present facts outside of our senses. Sadovnik (2007, p. 417) reviewed qualitative research from Denzin & Lincoln 1994, Riehl 2001, and Maxwell 2004 and concluded that "some qualitative researchers have remained squarely in the scientific tradition of post-positivism while others are more rooted within the interpretative traditions, including symbolic interactionism, ethnomethodology, hermeneutics, postmodernism, feminism, critical theory, and cultural studies." This means there are elements of empirical methods – case studies, personal experience, life stories, and interviews in qualitative studies. Qualitative research has some elements of being quantitative because anything can be counted- even purely verbal responses, perhaps after sorting comments into similar groups. Also, quantitative research has some qualitative elements because answers to even the firmest numeric questions may conceal a variety of meanings (Mariappan, 2015). The strait jacket categorization of research as purely quantitative or qualitative should be moderated to the dominance of a particular method to accommodate all the possible areas of information

available for research. Research should not be closing our eyes to other areas of meaning because we want to prove a point.

While educational research borrows heavily from humanities and human sciences and uses its theories, educationists divide it instead of coordinating this knowledge (Kneller, 1994). The admonition of Levine (2010) is apt when he admonished that researchers should not be too quick to run away from using a quantitative methodology because they fear using statistics. A qualitative approach to research can yield exciting new understandings, but it should not be undertaken for fear of quantitative research. A well-designed quantitative research work can often be accomplished in obvious and direct ways. A similar study of a qualitative nature requires considerably more time and a tremendous burden to create new paths for analysis where previously no path had existed. Educational research differs as noted that "of all the professional social science disciplines, Education is certainly the most controversial with aims, objectives, and methods; it is a constant source of debate between stakeholders with different political agendas and disparate normative aims" (Hylop-Margison & Nassem Ayaz, 2007, p. 60).

Critique of Common Methodology in Educational Research

There is education research that calls for a review. For example, in a survey where a selection of the study participants are listeners to an educational radio program, and questionnaires are administered only to listeners, what kind of result will be expected? Such research should be considered from the point of view of the producer of the program in terms of its content formulation and delivery. How could a casual listener of an educational program judge the program? The listener of a program will often not be able to entirely consider a radio program as achieving its objective.

Some studies in education need more critical evaluation. In contrast to what we read and hear about evaluation that uses goals and objectives of programs, there is a goal-free evaluation proposed by Scriven (1972), which Patton (1980) reports as gathering data on a broad array of actual effects and evaluating the importance of those effects in meeting demonstrated needs. The capacity to do an evaluation many times should involve the ability to bear the cost, access information, and possess an impersonal attitude of objectivity. How can a researcher evaluate an organization where he or she works without bias? How can a candidate represent an organization and, at the same time, evaluate it?

Another form of research that calls for critical reflection is quasi-experimental. If caution is not taken, it could be like researchers working toward a particular answer. How will the experimental groups be different from the control group that is left without any explanation of what the group was before the administration of the questionnaire and possible interference that could occur during the study? The non-examination of the control group makes it prone to error because the researcher needs to explain the nature of the group before the study. It is rare to find cases where the independent variables have no significant effect on the methods used as the experimental group. Sometimes, the approaches or strategies need more interrogation to show why one strategy, approach, or mode is better. Research would not lose anything by providing background information on participants to ensure that all are at the same level of involvement.

In all these studies, the basis for the literature review is often neglected, as if it is just in the study to occupy space. The critical reader needs an explanation, and the arguments can be recovered. It has been noted that "the evidence that research bias creeps into supposedly empirical and objective claims is ubiquitous throughout education research" (Hylop-Margison & Nassem Ayaz, 2007, p. 115).

What are the underlying principles that should guide educational research methodologies? They are objectivity, depth, anonymity, rigor, patience, humility, determination, autonomy, authority, clarity, and specificity (Omoregie, 2017). These principles are fundamental in all research, especially in education, because of the expected role of the faculty of education in universities. Philosophy of education, is one of the foundation courses in education, is a theoretical discipline with "principles which are the elements holding educational theories together by bringing out practical implications and effects on living" (Omoregie, 2011, p. 24).

Guiding Principles of Research

Research requires time and attention to be given. Some things only occur to humans once they wait and give the needed serious attention. Although the length of time may differ from the quality of time, the two could be needed to get the required result. Patience is an ability or willingness to suppress or delay the expression of negative feelings of restlessness or anger. Synonyms of patience are composure, stability, self-possession, persistence, endurance, fortitude, and restraint.

Researchers must be intellectually humble and curious as technology makes it easier to distort and quickly spread false information (Resnick, 2019). Resnick calls attention to three challenges: appreciating human cognitive blind spots, the need to celebrate the culture that admits one can be wrong, and the truth that achieving perfect intellectual humility will never be possible. Therefore, researchers need to choose their convictions thoughtfully.   Academic humility means accepting that the things we believe in might be wrong. The intellectually humble would not hold any grudge against anyone when their thoughts are challenged (Leary, 2018). Intellectual humility does not require a high intelligence quotient or a particular skill. It does, however, involve thinking about human limits, which can be painful. It is a process of monitoring one's confidence. The plague of humans is boasting about knowledge. The intellectually humble are more likely to admit it when they are wrong. When we admit we are wrong, we can grow closer to the truth (Resnik, 2019).

Determination refers to resoluteness, insistence, doggedness, and willpower in achieving a desirable end, even when there are adversities or oppositions. It usually comes from an underlying belief in a thought and a way of doing things, often with an element of religion, culture, group, or political influence. A researcher could undergo pain and endure hardship to find facts. There are motivational stories of people's resilience in achieving goals in life. Sayings like where there is a will, there is a way, and no injury to a willing mind support the value of determination in human endeavors. In Psychology literature, self-determination closely relates to motivation, and there are theories that back up the two concepts. While this perspective does not deviate from others, there is an aspect that determination needs to be taught for positive and progressive rationality. If not, one could mix up sheer stubbornness with the altruistic doggedness of personal and communal values.

Scriven (1972, p. 55) submits that "one of the ways by which philosophy is present in educational research is through its contribution to critiquing and framing empirical educational research. By participating in educational research in this way, philosophers of education engage the empirical research world and help to make needed theoretical connections to educational policy and practice".

Conclusion and Recommendations

Research at the postgraduate level requires some time for candidates to get their bearings. Some experiences show that the supervisors' interest can determine areas of specialization. This raises the question: Should research focus depend on the expertise of the supervisor or the supervisee?

The interest of the candidate should be uppermost. "The existential teacher acts as a resource to assist students in whatever project they choose based on their subjectivities, interests, and inclinations" (Iram, 2013, pp. 152-153). However, it is possible for candidates not to know what they want to do or have problems with following an over-researched area. Since only some people supervise alone, candidates should continue to consult widely and be open to discussion. In some cases, a supervisor encourages candidates into an area of interest. Ultimately, it is better if there is a meeting point between the interests of the candidate and that of the supervisor. At times, this takes a long time.

This paper does more than show the limitations of empirical research. However, it proves that educational research can rise above empiricism and extend to other methods to present facts as an integrated view. It advances the position that qualitative research also has its deficits but should be addressed. Mixed research should be encouraged in faculties of education due to its distinctive nature and contents.

The discussion of findings in most empirical research demonstrates how all the research sides can be brought to the forefront. In the discussion of findings, literature is further used to corroborate data, and the framework for the study can also be explained as contributing to the whole study. The point that this paper attempts to underscore is that research should always be linked with human development. Educational researchers sometimes perform research that does not directly or indirectly impact specific individuals, organizations, and communities. Considering these thoughts, the study's significance will become more practical.

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