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Short Communication.

EDUCATIONAL RESEARCH THEORETICAL AND CONCEPTUAL FRAMEWORKS

By

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The article lay emphasis on the rationale for incorporating literature review in a research work in order to augment what is being asserted by the researcher. This given the fact that not everything read in the course of research is sufficiently relevant. However, the onus is on the researcher to define and differentiate what is meant by either theoretical or conceptual frame work. The work also brings to light two basic frame works that are germane and usually employed when carrying out views on educational research. The two models (theoretical and conceptual frame work) that are explanatory are included as an optional part of the background to the study where a given problem takes root from another. Having brought to light the common ground between the two explanation models, this work went further to draw the line between the two explanations.

Keyword: Theoretical, conceptual, framework, education and research.

Introduction

The rationale for incorporating review of literature in research is that when you substantiate what you say, you usually substantiate it through the literature you have read. Hence, you must document your sources or references for your rationale and your theoretical/conceptual framework. A framework is simply the structure of the idea or concept and how it is put together.

A researcher who embarked on a particular study would want the background to be basic and introductory that tries to answer such question as “why the study”, and elucidates the current trends of the study. In an attempt to review educational research two basic ways are employed, these are theoretical framework and conceptual framework. According to Bandele (2004) both theoretical and conceptual frameworks are used as alternative to each other. To him, it depends on the institutions. A Theoretical or Conceptual framework is included as an optional part of the background to the study where a given problem takes root from one or more fundamental theories.

Theoretical framework is therefore a structure that guides research by relying on an existing formal theory. In other words, such developed structures are constructed by using an established, coherent explanation of certain phenomena and relationships. Thus theoretical framework can be expected to invoke a host of values and beliefs, not unique to the researcher, but shared in a common paradigm with other scholars.

Theoretical framework according to Alonge (2005) is an attempt to develop a general explanation for some phenomenon. These are the theories that have been proved and found reliable. A theoretical framework that is theoretical describes the relationship among key variables for the purpose of explaining a current state or predicting future occurrences. In this sense we need to expatiate or elucidate on the word theory and how it is used as a background to any research on educational study.

Theory is a formal set of ideas that is intended to explain why things happen or exists. It is the principle on which a particular subject or phenomena is based or an idea that is believed to be true but not proved. An explanation takes theory to mean an organized and systematic articulation of a set of statements related to questions in a discipline that are communicated in a meaningful whole. It says what it is explains (account for how it functions) predicts (under what conditions it occurs) and prescribes (under what condition it should occur).

A theory in Bandele (2004) work is said to be a set of relevant internally, consistent postulates about a particular observable phenomenon along with definitions to enable the user to move from the abstract to the real in order to describe, explain, predict and or advanced knowledge. Alonge (2005) put theory to be a set of interrelated constructs or concept, definitions and propositions that present a systematic view of phenomenon by specifying relations among variables,

with the purpose of explaining and predicting phenomena. Here in this definition, three things stand out clearly. One, a theory is a set of propositions consisting of defined and interrelated constructs. Secondly, it set out the interrelation among a set of variables (construct), and in so doing, presents a systematic view of the phenomena described by the variables. It finally explained phenomena, which enable the researcher to predict certain variables from other variables. Good examples of these are: Reinforcement theory, Piaget's Theory of Cognitive Development, Experimental studies of dynamic laws of the behaviour and structure

of personality, other are Law of Demand and Supply, Archimedes Principle, Wheela's model of Curriculum planning which set to explain the nature of curriculum and host of others.

A theory essentially provides an explanation on how some observe activities, events or phenomena, are interrelated. With a good theory for instance, we say where A, B and C are present, situations D would occur. In other words a theory is out to establish a cause-and effect relationship between variables with the purpose of explaining predicting occurrences. (Best, 1981). Explicitly, a theory is a formal

set of ideas that is intended to explain why something happen or exists, particularly when such ideas come through the scientific process or principles. It is the principle on which a particular subject or phenomena is based or an idea that is believe to be true but not proved. Though appraisals of those theories will create the solid base for the research problem. It is noted that not all research problems are developed from known theories in education. Some may come from the accumulated experiences of the researcher or as a result of previous researches that appear inconclusive.

Types of Theories include*:* - *Descriptive Theory*

- *Explanatory Theory*

- *Predictive Theory*

- *Prescriptive Theory etc.*

Conceptual Framework is a skeletal structure of justification, rather than a skeletal structure of explanation and this structure is based on either formal logic or experience. Conceptual framework can then be viewed as an argument, idea or concept chosen for investigation on which final judgment is based. Lester (2009) It outlines possible courses of action or presents a preferred approach to a system analysis for a given project. The framework is built from set of concepts, linked to a planned or existing system of methods, behaviors, function, relationship and objects. Kolawole (2005) said that "concept is an abstraction from reality and construct is concept or idea that is purposely fabricated to serve a specific purpose." Construct is also a summary of thoughts related to a phenomenon (An idea or belief that is based on various pieces of evidence, which are not always true). e. g. 'social class' and the 'government'.

Whoever engages on research, at this stage, explores the knowledge available in area of his or her study and provided necessary background information and rational for his present study from other studies. He is to identify which would lead to the identification of research problems and information about the research questions or statistical hypothesis. Conceptual framework implies bringing out a part of theory to restrictive out a concept or an idea of that theory. It is the concept of the researcher or certain phenomena in the research work. For instance Bandele (2004) explained that 'light' is a concept being, an expression of the abstraction of things like illumination or beams of rays that disperse darkness etc. 'weight' is also a concept that expresses several evidences or observations of things that are heavy or light, 'force' is also a concept that expressed evidences of a pull or influence weights on objects or thing. The aforementioned are concepts in physical sciences, which are directly quantifiable and could be measured objectively. However, there are educational concepts that may not be easily subjected to scientific measurements such as attitudes, opinions, achievements, performance, social class etc. The concepts of evolution differ from people to people, religion and societies. Therefore, a researcher is expected to explain the idea or general notion underlying the research work..

Conceptual framework like theoretical framework also embodies certain values and beliefs, existing apart from the researcher's. While this holds, theoretical framework is more rigidly tied to the body of theory they subscribe or adhere to, and conceptual frameworks are built to be more flexible. Theoretical framework is designed to provide the underlying principles or framework upon which the study could be carried out, the conceptual framework on the other hand deals with the concept or idea of the research work. Furthermore, while the theoretical framework lays out a more general attitude, the conceptual framework, more specifically looks at the matter of understanding variation. ***Conceptual framework is the description of terms and principles behind the work at hand while theoretical framework includes the terms that have been proved and find relevant and reliable to the work at hand***. Thus, a working model for studying for instance, the concepts of variation will be established to reflect a kind of synthesis of earlier researches and theories - A dialectics of conceptions.

It is to be carefully noted that both frameworks contribute to studies and researches. This is because the proper application of the duo - guides the study by helping to inform not only the statement of the research questions, but the design of the data collection as well as the subsequent analysis. In research and statistics, we describe those concepts (or constructs) that vary as variables and those that do not vary as constants. Thus we measure variable and categorize constants. This implies that both theoretical and conceptual frameworks have a focus of converting both theory and concept into operational terms that are valuable to the literature review and the research as a whole.

A good example of theoretical frame work was stated in the work of Adebule (2002), which was titled: Development and Validation of an Anxiety Rating Scale in Mathematics for Nigerian Schools. An empirically developed

Mathematics anxiety rating scale is a device that incorporates some set of questions specifically developed to elicit a particular type of response. It is a technical psychometric instrument meticulously designed for data collection in relation to anxiety on mathematics and other mathematically related subjects. The rating scale was properly conceived, and well designed before the actual development based on the assumptions of Likert Rensis (1954) who proposed the technique of summated ratings. The assumptions include the following:

(i) A number of statements concerning a given issue are compiled.

(ii) The statements are then edited on the basis of various informal criteria.

(iii) The edited items are given to a group of subjects who respond on a 5-point continuum such as: Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree. For purposes of scoring, the items are weighted either 1-2-3-4-5 or 5-4-3-2-1.

(iv) For half of the statements the continua are reversed. That is the statements are so worded that strongly agree is favorable in half of the statements, but is unfavorable in the other half.

(v) In selecting items for the final scale, internal consistency criterion was used, means for the upper and lower groups were then computed either items showing the largest differences between the mean of the two groups being retained for the final scale.

(vi) A Likert scale in its final form generally consists of 20 to 25 items.

(vii) Reliability of the scale was determined by an odd-even split half method.

This scale was viewed to be a blend of other scales in terms of some underlying principles and concepts which made it unique. These include:

(i) Flexibility – the scale would be capable of gathering data on different samples on different occasion for different purposes.

(ii) Broadness – The scale would be very comprehensive and adequately covers all the research analysis.

(iii) Receptiveness – It would be able to answer whatever questions or information needed from it.

(iv) Reliability – It would give the same rating over and over again. It would be consistent.

(v) Validity – The scale would rate what it purports to rate and all it purport to rate accurately at any point in time.

(vi) Unidimensionality – It would rate one thing at a time and ensures strictly that it does not rate other things at the same time.

The psychometrically refined anxiety rating scale was developed to be a standardized test that would enable a realistic comparison and prediction to be made about anxiety in mathematics and other related situations. This is because the scale was made to pass through all the processes of standardization and for which evidences of reliability and validity were provided.

When you develop your problem essay as stipulated in the example giving above, be sure that you are consistent with the level of your question, and use this as an opportunity to cross-check all the parts of the problem for consistency. When you write your problem essay, you will be incorporating your rationale for the development of the question, your theoretical or conceptual frameworks, and your literature review into one (not three) definitive statement of what you are studying and why, and its relevance to you and your reader.

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