Case study epistemological issues



This paper will briefly discuss various elements and issues in development research. To start, I will present the definitions of applied research and development and the role of the former to the latter. Subsequently, I will explain the epistemological issues and boundary settings in development research. I will also describe the research methodologies and present their advantages and disadvantages. Moreover, I will provide details about rigor in development research-its composition and relationship to validity. And to conclude, I will impart, in a few words, my personal outlook on the whole research process in development arenas.

Applied research is defined as a form of original investigation or study carried out to be able to acquire new knowledge. " It is, however, directed primarily towards a specific practical aim or objective". (OECD, 2002: 78). On the other hand, development is defined by Haynes (2008: 1) as " a key dimension of personal life, social relations, politics, economics, and culture". Development is usually linked to the socio-economic growth of an individual or group of people. Given these definitions, I can say that the role of applied research to development is to provide findings and conclusions that will answer a specific query about development through the process of either validating existing claims or yielding new facts. Frequently, conclusions that are found valid are used by the researcher as a basis of his/her recommendations that is directed towards the discipline being covered by the research. Different institutions like the government, NGOs, civil societies, academic organizations, etc. can use the obtained knowledge in order to make intelligent decisions that are intended for the growth and development of society.

Policy-related investigation is a common example of applied research in development. Policy-related investigation is performed when a researcher wants to gather information on a certain policy-to know whether or not the policy is effective and efficient; to know in what way the policy can be enhanced; to identify its impacts on certain population; to measure its costs and benefits to society, etc. Potter and Subrahmanian (1998: 19) pointed out that "different policies require different research questions to be asked in order to obtain results that will usefully inform those policies". In my understanding, it means that for every information that a researcher is searching for, there is an equivalent question he/she has to ask initially. The researcher will not be able to get the knowledge he/she needs in dealing with a certain policy if he/she will not be able to generate appropriate questions that will produce fruitful answers. Correspondingly, the researcher must also employ a suitable method and tools in the research.

Development is an essential aspect of our everyday life. Textbooks, academic articles and personal experiences tell us that development is an important element inside and outside the home and it is now a growing concern of society. I believe that there is a wide range of complex problems present in our society which impedes development. Hence, we need a multi-interdisciplinary process like applied research that is capable of dealing with these problems. Research in development recently gave birth to a new paradigm of development that I suppose is more suited in addressing difficulties of development. This entails participation of and interaction between and among the different stakeholders in processes such as negotiation, collaboration and facilitation that may be achieved through the

use of different research strategies where various stakeholders are perceived as actors.

The goal of the researcher that is to have knowledge on the particular subject he/she is exploring is fundamental in any form of research in development. It is worth mentioning that each piece of knowledge that the researcher acquired has its own origin. According to Kanbur and Shaffer (2007: 185), "epistemology is the branch of philosophy which studies the nature and claims of knowledge. Differences in epistemological approach underlie a standard distinction in the philosophy of social science between empiricism/positivism, hermeneutics/interpretive approaches and critical theory/critical hermeneutics".

Sumner and Tribe (2004: 3) mentions that "epistemology provides the philosophical underpinning-the credibility-which legitimizes knowledge and the framework for a process that will produce, through a 'rigorous' methodology (consisting of the full range of research methods), answers that can be believed to be valid, reliable/replicable and representative/typical". However, there are various opposing accounts on how knowledge is acquired and I deem this as a pressing issue in epistemology.

Discussions on epistemological stances vary from one author to another hence the difference between Kanbur and Shaffer (2007) text which identifies only three epistemologies namely, positivism/empiricism, hermeneutics/interpretative and critical theory/critical hermeneutics and the article of Schwandt (1994) which includes four, adding one more called social

constructionism. To be impartial, I will concisely discuss in the next paragraphs all the stances mentioned in both articles.

One of the epistemological approaches in development study is the empiricism/positivism approach. This approach is associated with the quantitative methodological stance. It is defined as " a research approach predicated on an observation-based model for determining the truth or validity of knowledge claims in which " brute data" are assigned a special role" (Kanbur and Shaffer, 2007: 185). This methodology believes that there is actually a reality out there that needs to be confirmed by the researcher and that knowledge is not created but only validated through tests and observations. Positivist researchers are seen as experts who apply general methods that produce valid views. Moreover, this approach is inclined towards the use of numerical, measurable and observable figures called "brute data" in order to confirm or contest the existing reality.

Another epistemological approach is the hermeneutics/interpretative approach. As Kanbur and Shaffer (2007: 185) defined, hermeneutics is the "interpretative understanding of intersubjective meanings". Contrary to positivism, this believes that truth is created by the knowledge which is produced by the interpretations of social actions of people in society drawn from non-numerical meanings. "To understand a particular social action, the inquirer must grasp the meaning that constitute the action" (Schwandt 1994: 191). I believe that understanding of a certain social action differs for every interpreter and no interpretation is the same and previously existent. This is a method of coding and decoding actions in order to produce knowledge that will represent truth. Interpretative researchers also believe that there is no

single truths that represents social actions. Furthermore, these researchers are not deemed as experts and what may be true and valid for one may not be the same for the others.

The third epistemological approach is called the critical theory/critical hermeneutics. This approach is in some ways similar to hermeneutics/interpretative methodology except that other dimensions were added to its central thesis. According to Kanbur and Shaffer (2007: 185), " understanding entails critical assessment of given beliefs and perceptions involving some underlying conception of truth or validity". Producing knowledge and finding the truth is not merely knowing and interpreting social actions nor translating one's language. It is imperative for a researcher to carefully scrutinize the actions and words of people from which knowledge is being extracted. He/she must be able to determine the reasons behind different beliefs that rose from various truths and must be able to comprehend the origins of these truths. Moreover, "[...] enlightenment [...] is an essential part of the process of inquiry" (Kanbur and Shaffer., 2007: 185). Critical hermeneutics is highly based on discourses/narratives. Hence, in order to gain knowledge, researchers in this approach must grasp the real meaning of one's language through seeking explanation from the person whom the claim is coming from. This approach critiques the role of the uninvolved observer. Schwandt (1994) also identified a couple of changes between this approach and the classical hermeneutics approach. Biases are said to be caused by previous knowledge and experiences that are inherently present in the head of an interpreter, therefore, it is something that cannot be rid of. Our experiences, traditions and present knowledge of

things affect/condition the way we think and interpret social actions. It is then impossible for an interpreter to 'clear' his/her mind before understanding a particular social action.

The last epistemological approach that vie for the attention of the non-positivist believers is the social constructionist approach. This approach is almost the same with the two previously discussed approaches except that it negates the idea of representation. "Social constructionist epistemologies aim to 'overcome' representationalist epistemologies" (Schwandt, 1994: 197). This approach believes that the human mind do not just interpret or find knowledge, rather, it creates it by constructing models, concepts and other plans using our experiences, traditions, previous knowledge, practices, etc. In short, we make knowledge according to what we know and see, thus, truth/reality is seen through a person's lens.

Methodology, like epistemology, is an important aspect of research in development. For every epistemological stance, there is a corresponding methodological toolkit that is used by a researcher. To be able to do a good research, the researcher must be able to apply the most suitable method to his/her research.

There are three methodological stances in research and development-the quantitative, qualitative and mixed-method inquiries. The first two are quite contrasting of each other because of their fundamental beliefs based on epistemologies while the third one, being a combination of both methodologies is said to be difficult to accept due to lack of epistemological principle.

Quantitative methodology is linked with the positivist epistemology and as reiterated by Hoy (2010: 1), quantitative research is a "scientific investigation that includes both experiments and other systematic methods that emphasize and control and quantified measures of performance." He also mentions that measurement and statistics are vital to quantitative method because these are the connections between empirical or the experimental observations and the mathematical expression of the relationship. "Quantitative researchers are concerned with the development and testing of hypotheses and the generation of models and the theories that explain behavior" (Hoy, 2010: 1).

A quantitative research method is best used for 'what' and 'what if' questions and it uses measuring and modeling of numerical data as the source of knowledge. A quantitative researcher usually employs descriptive statistics like regression, mathematical stimulation, etc. In addition, since this method follows the positivist approach, it entails knowing and searching of a universal truth by scientists who are seen as experts.

I find quantitative approach more focused on generalizations, giving answer to a problem and saying that it is the case for all similar events. Quantitative is seen gainful in a way that it is a kind of study which can be replicated, hence, can produce comparable findings. However, quantitative studies can be expensive and time-consuming. Also, this approach cannot easily reach difficult/marginalized groups and sensitive information are also hard to obtained (Bamberger, 2000).

I reckon that quantitative methodology, being the first to be known in the research arena, is still the most widely-used approach in development studies at present. However, I cannot say that it is the best method to use nor it is better than the next two that I will discuss.

Let's now proceed to the qualitative research method. This method is relatively new than the quantitative method. Hoy (2010: 1) describes qualitative research as an approach that " focuses on in-depth understanding of social and human behavior and the reasons behind such behavior. The qualitative method depends on the reported experiences of individuals through ethnographic analyses, field work and case studies. Qualitative researchers are interested in understanding, exploring new ideas and discovering patterns of behavior. "

Qualitative approach is most commonly used by non-positivist believers. It tends to answer 'why' and 'how' questions. Qualitative researchers exercise participatory research strategies which involve semi-structured interviews, participant observation, discourse analysis, focus groups, participatory analysis, life history studies, case studies, etc. This approach is said to produce faster results and at the same time, is less costly than quantitative strategies like surveys. By employing qualitative participatory processes, difficult populations such as women, children, minorities, etc. are easier to reach. Also, strategies are bendable depending on the culture of these groups. Furthermore, qualitative researchers can apply various strategies to either individuals or group without imposing responses on them. On the down side, findings of a qualitative research are said to be complex causing difficulty in the validation of responses. Due to the fact that this method is

problem (Bamberger, 2000).

multifaceted, it is also usually not well documented and therefore, cannot be replicated and/or be compared. Contrary to quantitative, subjects/participants of a qualitative approach are selected without sampling that is why generalization is not easy to accomplish. Lastly, this method is difficult to control whether interviewer is imposing answers to the research

Unlike the quantitative research, this is not an exact science but an understanding process that produces various answers which differ depending on the researcher and subject. This approach focuses on specific cases and not generalize subjects of the study. For qualitative researchers, truth and reality cannot be produced or known by measuring data, but rather by interpreting, conversing, and constructing.

In addition to quantitative and qualitative approaches, I will discuss briefly the third methodological approach in research in development which is called the multi-strategy research. Multi-strategy research is a term used to describe a research that combines quantitative and qualitative research within a single project. This strategy could make the most out of the strengths of both approaches as well as offset the weaknesses (Bryman, 2004). I will no longer elaborate on the characteristics of this approach since I already presented the characteristics of both quantitative and qualitative.

This combination of quantitative and qualitative approaches can be used to triangulate results. A researcher can cross-check outcomes of a method using another method of the other approach. Also, a result of a survey or any

quantitative method can be studied in depth using a qualitative method like case study, in-depth interviews, FGD, etc. (Bryman, 2004).

At present, multi-strategy is being more known in research arena. I suppose researches are already getting the impression that multi-strategy approach is complementary and must be taken positively although not based on epistemology. Quantitative may facilitate qualitative research and vice versa. This can also fill in the gaps when a researcher cannot rely on to either method alone. Further strategies may be utilized, hence, may also be seen as supplementary. However, it is important to remember that this approach is not superior to mono-strategy research. Furthermore, this still needs to be completely designed and conducted because the number of methods/strategies used in a research is not an insurance that one will yield a high-quality outcome. Last but not the least, researchers must not regard this as an approach that is universally applicable to all research problems in development arena and that it can answer all problems in development arena (Bryman, 2004).

Despite the fact that the epistemological approaches and methodological stances discussed above have opposing views on reality and different means of acquiring knowledge, I believe that research design is equally important to all. Boundary-setting is a relevant consideration that any approach must take into account before starting with the actual research. The drawing of boundaries is important to enable the researcher to select which of the issues are in fact vital so that he/she can focus on these and disregard the others which are less crucial to the research. However, a researcher using whatever approach he/she opted to apply must, of course, be certain on

his/her objective in doing the study since this will be the groundwork of his/her pursuit for knowledge.

According to Blackmore and Ison (1998: 41), boundaries "help to separate, simplify and focus on what is important in a particular situation". Some of the boundaries that may be considered are the following: (1) graphical location of the study; (2) participants of the study; (3) the role of the researcher in the study; (4) anticipated effects of interventions; and, (5) the researcher's responsibility and accountability (Blackmore et al., 1998). Some boundaries may be more physical than the others. Some can be easily drawn and seen while the others are more conceptual and thus, intangible. One issue in dealing with boundaries is how open (or not) the researcher is when it comes to adjusting or changing the boundaries of his/her study. Researchers must always bear in mind that boundaries are not fixed; instead, they are dependent on the changes or movements of his/her study. For the concrete boundaries, such as the first two considerations given above, it is somewhat easier to create and modify. However, for more conceptual boundaries, those which are intangible and abstract, it is guite the opposite. It is the stakeholders and the relevant actors who determine the boundaries of a study. The reason behind this is that since people have different perspectives and purposes, they tend to set different boundaries for themselves. Furthermore, people are influenced by their perceptions brought by experiences and learning. Hence, even two individuals confronted by the same situation will most likely have different perspective on the matter. Given this fact, the researcher cannot just perceive one's boundaries through his/her understanding. (Blackmore and Ison, 1998). Boundary setting in

development research may really seem complicated and tedious; nonetheless, it is one essential part of the whole process.

Another important element of research in development is validity. It seems that " of all the concepts of social research, perhaps none has been as important and as problematic as 'validity'" (Thomas, 2006: 118). Based on a number of scholarly texts I have read, which did not actually offer me a clear definition of what validity is but rather gave me criteria and indicators of validity, I can say that the validity of a research often amounts to the accuracy or firmness of its findings regardless of what research method the researcher opted to utilize.

But what really is validity? Maxwell (2005: 106) says that " validity...refer [s] to the correctness or credibility of a description, conclusion, explanation, interpretation, or other sort of account". In development research, a valid conclusion is very important. In order to achieve this, it is necessary for a researcher to have a secured and stable basis for his/her ideas. The researcher must be able to defend his/her conclusion by ample evidences or similar studies that will confirm and justify it. There are various validity tests that a researcher may opt to use, namely: (1) intensive long-term involvement, (2) rich data, (3) respondent validation, (4) intervention, (5) searching for discrepant evidence and negative cases, (6) triangulation, (7) quasi-statistics, and (8) comparison. However, it is worth-mentioning that Maxwell (2005) looks at validity as something that cannot be proven because it is relative. Validity depends on who is looking at what. If one person accepts the claim of the researcher maybe that is because he/she had the

same experience with the researcher or maybe he/she had a similar analysis of the problem.

People are critical beings that doubts and questions knowledge. If this is the case, then how can the researcher prove that his/her knowledge claim is valid? How can a researcher achieve validity in his/her study? As stated in the text of Maxwell (2005), the researcher has no way of knowing completely whether he/she captured validity in his/her research. Nevertheless, he/she can deal with validity threats such as researcher bias and reactivity. In order to eliminate researcher bias, he/she must careful not to influence the research with his/her morals, previous knowledge, beliefs, etc. However, at times, personal biases based on these things are impossible to ignore, thus, what the researcher can do is to be articulate and honest about it by having these known in his/her study. Similarly, reactivity is also hard to avoid. Participants of a research are often influenced by who the researcher is, thus, affecting the answers of the participants as well as the result of the study. The research may not actually need to eliminate his/her influence. He/she must only know how to understand it and use it a productive way (Maxwell, 2005).

Rigor in development research goes mutually with the validity of results of the research. We can say that a study is done rigorously in either qualitative or quantitative methodology if it reaches its validity, that is if the conclusion it produced is considered valid. However, in the article of Sumner and Tribe (2004: 13), it is written that " the basis for claims to 'rigor' relates to how the techniques [in methodology] are applied; that badly applied qualitative and quantitative approaches could lead to inaccurate conclusions and different

techniques suit different purposes." Rigor starts from making the research design to crafting the research question then selecting which methodology to employ as well as which tools to use. It is also worth remembering that the methods and tools used in development research have their different strengths and weaknesses, they are not equally suitable for all research problems, hence, it is important that the researcher selects meticulously according to the need of the research and not only because it is the easiest to utilize or it is the most available at the moment. Amount of rigor and validity differs for every strategy/tool used in either of the two methodological stances. If the researcher is not careful with his/her choice of method and tools, then the knowledge he/she will generate may not be acceptable to many and may not be valid.

To end, I would like to impart briefly my thought on research in development. At present, the tension among researchers in development arena is growing. They still argue on the primacy of methodology and epistemology they believe in. Just like many other researchers out there, I can neither say which among the epistemological stances is the best one nor point out which among the methodological stances is the excellent one to use for research studies. I deem that all are equally reliable and effective. It is just a matter of utilizing the most suitable method for a particular kind of research question. Every method has its own strengths and weaknesses, that is no methodology is perfect. Nonetheless, I know that any of them can in fact produce a good-quality research as long as there is rigor and if validity threats are prevented.