International Journal of Research and Education (IJRE)
ISSN (Online): 2398-3760

Educational Research: Educational Purposes, The Nature of Knowledge and Ethical Issues

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Received: 01/12/16 - Accepted: 30/12/16
DOI: http://dx.doi.org/10.19239/ijrev2n1p1

Abstract: Educational research should aim at improving educational practice by analysing the world of Education to understand it and make it better. It should be a critical, reflective and professionally oriented activity. Educational research should have three objectives: to explore issues and find answers to questions (for academics), to share policy (e.g. relationships between education/work/training, for policy makers) and to improve practice (for practitioners). Historically the role of the educational researcher has moved from academic theorist, through expert consultant, to reflective practitioner. Educational research has changed from the positivist assumptions underpinning the scientific–experimental paradigms which had prevailed during the 20th century, to the recent postmodernist and poststructuralist trends, which challenged the previous assumptions. Educational purposes are many and varied, and there is probably no consensus on this issue. The purposes of education can be affected by the context of the historical periods and by ideology. The purposes of education research can also be affected by the views and beliefs of reality. Educational research can in turn be affected and constrained by ethical issues. In this paper I will try and discuss the main issues regarding educational research, and how they affect the modern educational researcher.

Keywords: educational research, educational purposes, nature of knowledge, ontology, epistemology, ethical issues

1. Educational Purposes

If we asked the question "what is the purpose of education?" to a wide audience, we would first realize that people may be shocked by the question, almost like if they never really thought about it. After the initial shock, a very wide variety of answers are possible: to broaden peoples horizon, to prepare people to contribute to society, to prepare for a successful career, to stimulate a more well-rounded society, to learn, to be prepared for the real world, to enable people to live life at its full, to gain the knowledge to function in society, to make us a better society, to get a job, to be successful, to grow as a person, to get credentials, to be free, a means to an end, to be productive, to pursue a career, empathy. The answers just cited are some reasons given by people in a street survey (anonymous, 2000) in Ithaca, NY, home of Cornell University, an Ivy league University. These answers given by an apparently well educated audience are very varied, and one thing that we can state with certainty is that there is no general agreement on what is the purpose of education, and that education may mean a different thing to each person. But we can notice a shocking amount of utilitarian reasons (to get a job, to get credentials), and just a few deeper reasons like to make a better society, or to be free.

We can trace some of these utilitarian reasons back to Plato:

> … a society is stably organized when each individual is doing that for which he has aptitude by nature in such a way as to be useful to others and that it is the business of education to discover these aptitudes and progressively to train them for social use … (Dewey, 1916, p 88).

But Plato went beyond these utilitarian ideas to state that "Education proceeds ultimately from the patterns furnished by institutions, customs, and laws. Only in a just state will these be such as to give the right education; and only those who have rightly trained minds will be able to recognize the end, and ordering principle of things" (Dewey, 1916, p 89).

According to the Liberal Education paradigm, the purposes of Education are to make people more rational, to develop the intellect, empowering individuals with broad knowledge and transferable skills, and a stronger sense of values and ethics (Pring, 2004). The organization of knowledge is not only practical, but also philosophically sound, and the responsibility for learning rests on the experts. The definition of what is liberal education may be very broad, and in many occasions contradictory, but we may state that 'liberal education' is education based fairly and squarely on the nature of knowledge itself (Hirst, 1968). Liberal education takes ideas back from the ancient Greek philosophers, and from philosophers of the Enlightenment, and even though it may sound progressive at first, it was rooted on a concept of a society with strongly differentiated social classes, and its aim was not probably to extend education to all society.

Progressive Education is a pedagogical movement that started in the late 19th century, and persists until present times in various forms. Even though it shares many values with the Liberal Education, Progressive Education differs from Liberal Education in a number of features. It aims at democratizing education and making it available to all, and it also aims at solving practical problems and transversal subjects based on experience. It also favours broader curriculums including physical education, cooking, class discussions etc., rejecting the traditional idea of a Banking concept of Education (Freire, 1996). As a final purpose, education should be a means to give people more freedom, and to build a better society for all, to become more human.

The idea that education would provide a better future and better jobs was challenged by Brown *et al.* (2011) in their seminal book, The Global Auction, where they discussed about the broken promise of education. With the rise in educated people from countries such as China and India, jobs in the global market are like a Dutch (reverse) auction (decreasing prices), in which companies are getting cheaper workers from any country. Additionally, digital Taylorism (the decomposition of IT wok into easy to follow packages) has aggravated even more this situation.

The traditional purpose of education coming from the Enlightenment is to help people determine how to learn on their own (Chomsky, 2012). Diametrically opposed to this concept, another concept of education is that of indoctrination: to put people on a framework, and make them obedient and useful workers. After the activist movements of the 1960´s in Europe and the USA, there was a concern from the liberal internationalist sector of the public institutions that people were getting too free and independent. The study *The Crisis of Democracy: On the Governability of Democracies* (Huntington *et al.,* 1975) prepared for the Trilateral Commission, observed the political situation of the United States, Europe and Japan and argued that in the United States the problems of governance stem from an excess of democracy and thus advocates to restore the prestige and authority of central government institutions. That study claimed that institutions responsible for the indoctrination of the young were not doing their job, and institutional changes were needed in order to reinstate the indoctrination and control of educational institutions. The idea was to turn the educational system into a way to control and indoctrinate the youth, make education more like a vocational training, and impose a debt that traps the students into a life of conformity. Teachers would become the deliverers (not the designers) of educational goals decided by politicians. These reactionary ideas of the mid-1970´s may have continued in a less explicit way in later administrations considering the role played by the Carter group in the Trilateral Commission (Chomsky, 1981), and the subsequent rise of the Reagan era in the 1980´s.

The tensions between these two ways of viewing education continue until present days, with a number of institutions advocating for more elitist education, and other institutions more open to new research and innovation. The kind of research and the kind of educational enquiries that can be made by educational researchers are very determined by the way each institution views the purpose of education. If an institution wants to be in the forefront of educational enquiry and research, it will only reach beyond accepted paradigms by thinking freely and with a wide open mind, and that is not very likely to happen in an institution that has indoctrination as its overriding objective. But with the current metrics used to rank educational institutions and Countries, a lot of emphasis is made on results that are measurable (test results, e.g. PISA report), and there is not always a direct correlation between test results and how well students are prepared for work and life.

2. The Nature of Knowledge

The nature of reality and the nature of knowledge, or rather, how the researcher views reality and knowledge, will have a strong impact on what can be researched and what can be found. I will first introduce some definitions, and follow with a short discussion on its implications with educational research.

Ontology is the branch of metaphysics dealing with the nature of being; it deals with beliefs about reality. Different kinds of research are founded on different beliefs of what we think truth is. What we think reality is will shape the way we

can know about reality. There are two types of ontology with opposing views: realism and relativism (Pring, 2000). Realists believe that one truth exists, that it does not change and it can be discovered using objective measurements, making it possible to generalise. On the other end of the spectrum, relativism believes in multiple versions of reality, what is real depends on the meaning we attach to truth, and reality is not fixed, it evolves according to our experiences. Since reality is context-bound, it cannot be generalised, it can only be transferred to other similar contexts. Depending on what view researchers have about reality, it will influence every decision they make about their studies.

Epistemology is the theory of knowledge, especially with regard to its methods, validity, and scope, and the distinction between justified belief and opinion (Hacking, 2001). It is basically the relationship that the researcher has with the research. Basic epistemological questions are How do we get knowledge? How do we discover new things? There are a number of epistemological theories (Crotty, 1998), among which the most important ones are Positivism (related to ontological realism), Popperianism (related to ontological realism, but epistemological skepticism), Pragmatism (which bypasses the ontological questions altogether), Interpretivism (related to ontological relativism or subjectivism), and Constructionism (all knowledge is constructed, related to ontological absence).

Ontological beliefs will dictate epistemological beliefs. What the researcher believes about the nature of reality will dictate what kind of relationship the researcher should have with whatever is being studied. There are two basic lines of epistemological believes on how research should be carried out. Some researchers think that research should be done in an objective way, so that the researcher does not influence the data that is gathered. They believe they have to stay far from the object researched in order to get an objective measurement. This is also known as an etic approach, taking an outsider´s view of someone else´s situation. This epistemological approach is preferentially used by researchers with ontological beliefs based on realism. The opposite approach to research would be to take an emic approach. This approach is used by researchers who believe in a subjective approach to reality (relativism). For them it is necessary to interact with people in order to discover their needs. There is a potential effect of the researcher on the researched. And there are a number of epistemological approaches that lie between these two extremes.

Ontology and epistemology are therefore very important considerations for researchers. The ontological and epistemological beliefs and approaches will affect the kind of questions asked and the methodology used by the researcher, and that in turn will have an effect on what can be done and discovered. For example, an experimental methodology would be most likely based on a realist ontology and en etic epistemology: the researcher wants to prove that some "thing" causes an effect, by means of observations, measurements and experimentation. They are looking for one truth. Quantitative methods are common in this approach, and the analysis of the problem is usually deductive, starting from a theory, a hypothesis is tested to prove or disprove the theory. On the other hand, qualitative methods are usually applied to phenomenological studies, based on a relativist ontology and an emic epistemology (interaction with the subjects of the study) and the analysis of the problem is usually inductive, starting with particular case studies and finding patterns that can eventually lead to a general hypothesis. These two extreme views created a false dualism in educational research (Dewey, 1916), with proponents of quantitative (positivists) vs. qualitative methods, the former usually assimilating social sciences to natural sciences, while the latter have the view of the uniqueness of educational research since the researchers are dealing with human subjects, not research objects (Pring, 2000). Philosophers of social sciences are concerned with the differences and similarities between the social sciences and the natural sciences, the relationships of cause and effect between sociological issues, the existence of social laws, and its ontological significance (Benton and Craib, 2001).

We can see the importance of all these issues for researchers: ontology will dictate epistemology, and that will in turn affect the methodology, methods, and results obtained. The research questions we ask will be determined by our ontological and epistemological beliefs, and this will influence (and constrain) the methods used and the results discovered.

3. Ethical Issues

We must also consider research ethics before starting any kind of research, and especially if this research involves working with people. The Belmont Report (DHEW, 1978) describes the three core concepts in ethical research: respect for persons, beneficence and justice. Respect for persons involves a person´s dignity and it requires a consent process in which the researcher informs the potential subject of research on the details of the study so that they can make an informed decision. This information should include the purpose of the research, study methods, time required to participate, potential risks/benefits, and their right to ask questions or quit at any time. For people with special needs, minors, mentally handicapped etc the permission from a third

person will be needed to protect them from possible harm. Beneficence involves maximizing the possible benefits of the research and minimizing the possible harms to the subjects of the study. These benefits or harms can be physical or psychological, and they can affect the individuals or the whole society. Justice means that the benefits or burdens of the research should be distributed fairly among peoples groups, so researchers should not be biased regarding race, sex, social status and so on in order to participate in the study. Justice also protects subjects that are institutionalized (imprisoned etc). Before any study is approved it has to go through a review board for permission. Researchers must fill out an application that describes the study, potential benefits and harms etc.

We can see from the basic tenets mentioned before, that good educational research will always be influenced and constrained by ethical concerns. Is it possible to make a really unbiased social research and at the same time give the participants all the information regarding the purpose of the research? Will the participants in the research behave in the same way with all the information about the purposes of the research? Is it easy, or even possible, to predict all possible psychological/health effects of an experiment in all potential participants? And even if we find the answer to some of these questions, is it fair with society not to proceed with the experiment, and deprive society of the possible benefits of the research?

Newby (2010) suggested that educational research should have three objectives: to explore issues and find answers to questions (for academics), to share policy (e.g. relationships between education/work/training, for policy makers) and to improve practice (for practitioners). Historically the role of the educational researcher has moved from academic theorist, through expert consultant, to reflective practitioner (Nisbet, 2005). Educational research has changed from the positivist assumptions underpinning the scientific–experimental paradigms which had prevailed during the 20th century, to the recent postmodernist and poststructuralist trends, which challenged the previous assumptions (Gray, 2013).

Ethical concerns can be very culture dependent. Pring (2000) defined virtue as a general disposition to do the right thing at the right time. Any virtue or ethical value therefore, embodies the values which prevail in a social or cultural tradition at any given time in history. Western cultures have traditionally considered that the scientific understanding of cause and effect is somehow superior to the magical ideas of primitive societies Winch (1964). However, the scientific approach is in fact as much a function of our culture as is the magical approach of the "savage" a function of his own culture. Modern Western cultures may attribute rain to meteorological causes while Ancient primitive cultures will attribute rain to the Gods or magic. But there is no evidence that Modern and Ancient men´s brain function any differently. In both cases, men are just following the generally accepted ideas and paradigms, not discovering by themselves the fundaments of rain (or any other phenomena). The way to view the world also has ethical influence. What is considered ethically acceptable in the West could be regarded as a crime in some tribal societies. To cut trees for money is a commonly regulated business in many parts of the world, but in the Amazon rain forest, each person is allowed one single tree in his/her entire life, so he can build a boat. “It takes a village to raise a child”, says an old African proverb (Sherman *et al.*, 2003). This is but one more example of different ways to see life and reality, probably very wise and very different from some western views.

These ethical beliefs are strong cultural features that are deeply impregnated in each society, and we could argue that one of the purposes of education in its origins was to teach the individuals ethical values that were aligned with the accepted ongoing view of the world. The pursue of knowledge and progress into new paradigms, will only be possible if/when the researcher questions the accepted views, and explores new lines of thought and enquiry that may challenge currently accepted theories as “truth”. This is usually a very difficult and challenging position, that only a few discerning minds have dared to follow in human history, risking their prestige and even their lives.

4. Conclusion

Dogs and horses can be trained, people may be trained, but only persons can be educated. Education, as opposed to training, is intended at making people more human. I have presented some ideas on the purposes of education, the nature of knowledge, and some ethical issues. It is interesting to study the historical development of educational theories and the philosophy of education in order to try and understand where are we now, and how can we improve educational practice. Interestingly, the different trends and paradigms studied have not appeared in history in a linear sequence. Some of these are paradigms that have lived together in time. And these paradigms have been developed basically in Western Societies. Are the purposes discussed in this essay valid in other societies such as some African, South American, Middle East and Asian countries? Is reality viewed similarly in these societies? And are there similar ethical issues shared? Will individual and cultural differences make an impact on these issues? And what about tribal societies still un-contacted (or rather rarely contacted) by the

"civilised world"? Can they learn from the lessons of our history (and can we learn from theirs), or are they better left alone, uncontaminated by our ideas and pre-conceptions? Whatever the answers to these questions, I expect and hope the theories and paradigms developed so far will help societies to do better educational research, leading to improved educational practice, that will eventually lead to making people more human, better prepared to function in a better world that respects the individual, diversity, the environment, and a common destiny for All.

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