



From the Book 'Becoming Critical': A Short Dialogue for Educator

*S Latief¹, W P Silalahi², Y Rachmawati³

¹The Institute of Social and Political Science Nurdin Hamzah, Jambi, Indonesia

²National Dong Hwa University, Hualien, Taiwan

³Indonesia University of Education, Bandung, Indonesia

Article Info

Article history:

Received April 5, 2020

Revised April 19, 2020

Accepted April 20, 2020

Available Online April 20, 2020

Keywords:

Positivism

Interpretive

Emancipatory

Education

Theory and practice

ABSTRACT

This paper performs a narrative analysis of the basic philosophy of education book. The book, "becoming critical" was written by Carr and Kemmis (1986). Authors rise up again this old book due to the whole content is essential for educator, students from undergraduate to doctoral level. In simple, the book narrated three basic educational research methodologies among all chapters: technical-theoretical-positivism, practical-interpretative-hermeneutics, and critical-reflection-emancipatory paradigm. Narrative is the central mechanism for meaning making. It is the multiple representations used to reference and make sense of human experience. Dealing with the pros and cons of those paradigms, this paper gives a brief memory to educator in doing research in education. To sum up, this paper illustrated education, knowledge, and action research.



<https://doi.org/10.46627/sipose>

INTRODUCTION

The book 'Becoming Critical' (Figure 1) is one of the must read books for doctoral students in the field of education. The authors' experience, while pursuing a doctoral degree in the education domain, this book provides a philosophical foundation in research methodology.

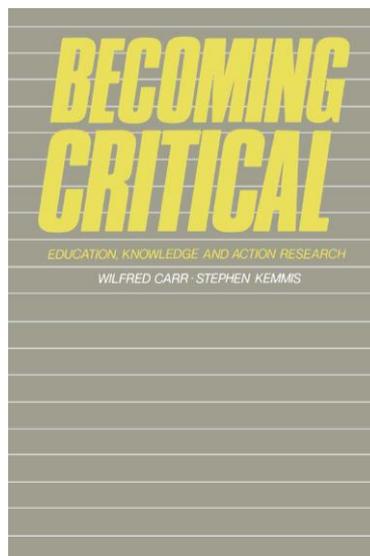


Figure 1. The cover of 'Becoming Critical' (Carr & Kemmis, 1986)



Even though, the book is an old category, however, it contains the philosophy of research including three fundamental approaches of research methodology: positivism, interpretive-hermeneutics, and critical-emancipatory. From chapter 1, the book explores the position of teachers, researchers, and curriculum in dealing with the positivism approach. In this context, there are eight general traditions in the study of education: (1) philosophical studies of education; (2) grand theorizing; (3) the foundations approach; (4) educational theory; (5) the applied science or technical perspective and the new practicality; (6) the practical; (7) teachers as researchers; and (8) emerging critical tradition. Meanwhile, there are five 'dimensions' of curriculum research:

1. Different *levels* of educational study (from macro- to micro perspectives).
2. Different perspectives on the *character* of educational situations (as 'systems', 'program', 'human encounters', or 'historical moments').
3. Different *views of educational events as objects of study*.
4. Different degrees of emphasis on education as a *distinctively human and social process*.
5. Different degrees of emphasis on *interovention* by the researcher in the situation being studied.

In chapter two, the title is the natural scientific view of educational theory and practice. The aims of research in education are the same as those of research in science generally the scientific notion of 'theory' provides the logical standards 'by which we can assess any claim to the title 'theory' and 'which enables us to judge the value of the various theories that are put forward by writers on education. The aims of this chapter are to trace the historical emergence of this view of educational research, to describe some principal features and to critically assess its claims.

Additionally, the foundations of educational theory: from philosophy to science is also explored. It was commonly assumed that educational theory was essentially philosophical in character. The task of educational theory was to encourage teachers to develop a comprehensive understanding of their role as educators, by engaging in a process of philosophical reflection. Teachers required this kind of educational theory because, as educators, they needed a substantive 'philosophy' which would justify and support the educational aims and ideals they pursued. The practical purpose of the educational theory was to transform unconsidered and unexamined modes of thought and practice into thoughtful and reflective ones. There were serious discrepancies between the rationale for a philosophical approach to educational theory and the particular way in which it was put into practice. In practice, educational theory was never concerned with developing reflective and philosophical thinking in teachers, but only with presenting the summarized results of the philosophical thinking of others.

The original promise of an approach to educational theory that took a philosophical, and hence questioning, stance towards fundamental educational ideas, never actually got off the ground. Consequently, educational theory was invariably perceived as a self-contained academic pursuit different from, and unrelated to, the educational practices it was supposed to illuminate and inform. They were pseudo-questions and that educational theory should surrender all interest in them. Indeed, the fact that the only educational questions that could be rationally answered were those that were amenable to empirical methods of testing, suggested that scientific knowledge should replace philosophical beliefs as the proper source of educational theory. Knowledge and understanding should be based on scientific experimentation rather than philosophical reflection. The concern of educational theory with reflective teaching and enlightened practice should be replaced by a concern for the scientific ideals of explanation, prediction and control.

In the part of 'education as an applied science', the following are some essential points: (1) Educational theory sought to improve practice not by improving the thinking of practitioners, but by providing a body of scientific knowledge in terms of which existing educational practices could be assessed and new, more effective practices devised; (2) Educational theory was to become an 'applied science'. Concept of 'application' was taken to mean that educational research should apply the methods and techniques of the natural sciences to educational events,



this interpretation was quickly replaced by the view that what was to be applied were the concepts, theories, and methodologies of the social sciences.

The next part, we want to explore is the positivist approach to the problem of theory and practice. Although there are wide variations in the way the term is used, 'positivism' is usually taken to refer to a style of thought that is informed by certain assumptions about the nature of knowledge. The most important of these assumptions is 'the rule of phenomenalism'; the claim *that valid knowledge can only be established by reference to that which is manifested in experience*. Positivist thinking has also been influential in the study of history, theology, and ethics. When applied to the social sciences, positivism is usually taken to imply two closely related contentions. The first is the belief that the *aims, concepts, and methods* of the natural sciences are also applicable in social scientific enquiries. The second is the belief that the model of *explanation* employed in the natural sciences provides the logical standards by which the explanations of the social sciences can be assessed. Most positivist accounts of educational theory and research, therefore, advocate research strategies that are based on the logic and methodology of the natural sciences.

The account of the methods that create these theories and which, within most accounts of educational research, now enjoys a position of near orthodoxy, is the *hypothetico-deductive* account suggested by the modern empiricist philosophy of science. The name given to this view summarizes its main contentions, namely, that scientific enquiries proceed by proposing *hypotheses*, preferably in the form of universal laws which can be assessed by comparing their *deductive* consequences with the results of observations and experiments. A scientific explanation may be divided into two parts—an *explanandum*, which refers to the event to be explained, and an *explanans*, which contains the information explaining its occurrence. Among the further conditions stipulated by Hempel and Oppenheim is the requirement that the *explanans* must have *empirical content*; that is, it must be capable of testing by experiment and observation. Another formal condition is that the premises constituting the *explanans* must be *true*. Furthermore, the scientific laws in a valid explanation must not only be true, but must also express *a uniform and invariant connection between different empirical phenomena*. Scientific laws, therefore, express an unrestricted universality in that they claim to be true for any place at any time. They express, in short, some sort of 'nomic necessity'. In most, but not all, deductive explanations, the kind of necessity that is asserted is *causal*.

RESEARCH METHOD

A narrative analysis guided this study. The central mode in this analysis is language and therefore in the human sciences and social work, researchers collect oral or written narratives and related speech acts (Floersch, 2000). "Narrative is a window into human interaction in relationships - the daily stuff of social work" (Riessman & Quinney, 2005). It is the multiple modes of representation used to reference and make sense of human experience. Moreover, "narrative is about problem solving; the narrative is about conflict; the narrative is about interpersonal relations; the narrative is about human experience; and the narrative is about the temporality of existence" (Ryan, 2007: 24). Therefore, narratives are also the central mechanism for meaning making (Floersch, Longhofer, Kranke, & Townsend, 2010). As part of narrative study, this paper is also fulfilling the criterion of a position paper (Suprpto, Ku, Cheng, & Prahani, 2020).

Contributor or narrators in this narrative study included a group of doctoral student in the education field who pursued their degree in National Dong Hwa University, Taiwan. Totally, twelve doctoral students contributed to the discussion of the book "Becoming Critical". Most of them are Taiwanese; the remained students are Canadian and Indonesian. The narrators were pseudonym or initial, such as D, W, N, Y, Hs, Ts, C, 賴, 郭, 陳, 湯, 林.

DISCUSSION

The discussion of the essential point is arranged by the sequence summary-reflection-question.



Positivism approach

Summary#1 (D)

The main theme of the chapter is an attempt to deal with the aims and methods of educational research. The authors point out that before the turn of the 19th century, education was in the sphere of philosophical ideology. According to them, philosophy is the love of wisdom what we need is nothing but wisdom in education. This idea was not helpful to the teachers who wanted to be able to apply educational research in their classrooms. With the tremendous turn of events in the 19th century in the area of natural sciences, the idea of subjecting social sciences to the same rules, laws and implications of empirical research came to be known as positivism. It opposes any metaphysical or theological basis for any valid knowledge.

Reflection

With the introduction of positivism it quickly became apparent that the element of humanity plays the most important part in educational research. If we look at a chicken farm, the primary purpose is to raise chickens to develop the largest amount of meat. Scientific research based on empirical values can be conducted to find out what kind of feed can achieve this purpose. The question is whether positivism that is very much applicable to the chicken farm can be applied to human educational research. We think the answer is a very clear no. There are some points about chicken farm that are instructive to our discussion. Chickens have no saying in the research, chickens have no free will, and chickens are expected to behave in a predictable way and many more considerations. But it is very clear that humans have free will and are very unpredictable animals. We believe it is befitting to be reminded of the definition of education as outlined by Dewey (1916). A comprehensive study of this definition should point out the deficiencies of all aspects of educational research.

Question

How do we reconcile the involvement of humanity in scientific research without denying the tremendous contributions of positivism to human progress?

Summary#2 (N)

After discussing the eight general traditions in the study of education and the fifth dimensions of curriculum research, the authors explain about the historical of educational research, some of the principal features and some criticism of education experts. They depict the foundations of educational theory from philosophy to science, education as an applied science, the positivist approach and its criticism. The task of educational theory was to encourage teachers to develop a comprehensive understanding of their role as educators, by engaging in a process of philosophical reflection. The practical purpose of the educational theory was to transform unconsidered and unexamined modes of thought and practice into thoughtful and reflective ones.

In terms of applied science, the authors argued that educational theory was to become an 'applied science'. The educational research should apply the methods and techniques of the natural sciences to educational events. Turning to the positivist approach, the authors agreed that positivism' is usually taken to refer to a style of thought that is informed by certain assumptions about the nature of knowledge and the valid knowledge can only be established by reference to that which is manifested in experience. The proposed of the *hypothetico-deductive* that scientific enquiries proceed by proposing hypotheses, preferably in the form of universal laws which can be assessed by comparing their deductive consequences with the results of observations and experiments. However, the positivist approach has been subject of criticism and debate; both there are those which have their origins in the philosophy of science and the positivist view of the relationship of theory and practice.

Reflection

Educational theory should use to improve the practicing and the thinking of practitioners, teachers, and students. Considering the positivist approach, we must act like positivist thinking



and belief that the aims, concepts and methods of the natural sciences are also applicable in social scientific enquiries because the explanation in the natural sciences provides the logical standards by which the explanations of the social sciences can be assessed. Educational theory also gives positive implication to the teacher in order to adopt and to implement educational decision made on the basis of scientific knowledge. In addition it can produce scientific explanations of educational situations which can be applied to make an objective decision about courses and curriculum. Therefore, creative thinking, critical awareness, and logical thinking is should be used in order to criticize the new educational theory.

Question

1. The book's authors just mention about the implications of the educational theory for the teacher in p. 70, so what is the implication of the scientific view of educational theory for the student?
2. What is your opinion about this sentence: "so is it unnecessary for educational theorist to collaborate with teachers in order to decide how educational problems should be resolved".(p. 70)?

Summary#3 (W)

Authors summarize that in spite of the many criticisms that are exposed to a positivism as a philosophical view of education, positivism remains one of the ways (methods) is more accurate in determining policy - education policy, its inherent orientation, curriculum, research, education and so on. Therefore, with this approach all of the education systems will be evaluated appropriately. With this approach anyway, what is called the standardization that includes curriculum content, quality of teachers, management and competence of graduates, will be realized objectively. Therefore, the essence of education is evident in the practice and application, the methodological positivism in the plains will produce educational technology at the social level, and technology education in the next era of determination can serve social or education.

Reflection

Education is basically aimed to instill the knowledge, skills, appreciation, attitudes, interests, critical thinking and personal adjustment and social. In education, all elements of the system should ideally be the result of a research that can be determined precisely whether an educational process can be called successful with maximal or not.

Various paradigms are commonly used in the process development of the social sciences, including education. Each has strengths and weaknesses. Proponents of positivism believe, if the positivistic paradigm is applied in education and educational research, it will obtain the best solution (concrete) on the problems of education, which until now felt. This is a reflection of the initial effort, even global, in seeing how the positivistic paradigm when applied in education.

Question

After seeing the theory and doctrine of the positivism paradigm. Then what is the effect of its dominance in the world of education?

Dialogue of Positivism

D: How do we reconcile the involvement of humanity in a scientific research without denying the tremendous contributions of positivism to human progress?

N: The writers just mention about the implications of educational theory for the teacher in p 70, so what is the implication of the scientific view of educational theory for the student? What is your opinion about this sentence, "so is it unnecessary for educational theorist to collaborate with teachers in order to decide how educational problems should be resolved" (p 70)?

W: After seeing at the theory and doctrine of the positivism paradigm. Then what is the effect of its dominance in the world of education?

Y: The research of science still has limitation, especially positivism that always needs evidence and empirical experiences. The education field is wider than evidence that could be seen (such



as involving an emotion, spirituality, insight). It is differences with the philosophical view that can make prediction and thinking beyond an evidence. What do you think?

C: Pedagogy research under the positivist view, its object of study and research field is limited, so whether its findings can be effectively applied to the general context, the site is a frequently raised speculative questions, my question is what kind of research method, it cannot negate the arguments under positivism, but also take into account the general context of educational research mode. What is your opinion?

Ts: Educational research process, whether each study must have a faction code or theoretical? If the study under the terms of the personal rule of thumb, from exploring the practical context of education, self-build theory, and then according to their theory applies to the teaching and research, feasible? How they should be?

郭: Positivist view of the phenomenon prediction seems a bit stressed and want to be copied applied to the field of education, and in this process, if there is conditions which limit or ethical creed. What is your opinion?

賴: How will education theory and practice of structured, systematic, scientific, yet the main characteristics of the study?

陳: There is often the difference between theory and practice, and then busy with trivial matters in daily education teachers, and implementation of education policies on the occasion, how can we support teacher education as a profound reflection of the role of an educator, and guide practice directions theory is an urgent need, especially in post-modern society is more important! How to reproduce philosophical reflection educational theory from the context of this article, the pursuit of wisdom as a practical course work?

湯: Mentioned herein presets for different philosophy of science education theory research has its real impact! In theory to guide practice perspective, please briefly describe their practice for educators engaged in teaching the impact of that?

Interpretive approach

Summary #1 (D)

The more I read, the more I realize that we need to back up a little and define two basic and very important terms, namely what are the definitions of "a human being" and "education". It seems to me that the two methodologies we have studied so far deal with one aspect of human beings and neglect the totality and wholeness of a human being as a social reality. We have already seen that positivism falls short of its human aspect and I believe interpretive view also fails in recognizing the role of the observer in the interpretation and to see that individuals are not only the products of their concepts and ideas, there must be other factors involved. But at the same time we should bear in mind that both theories have meaningful contributions to educational research and practice. I am looking forward to reading the rest of the book to see if my observations are valid, and if they are, would there be any solutions offered.

Question

Do you believe, based on your experience, positivism and interpretive views of educational research have contributed to practice? If yes, give examples, if not, why not?

Summary #2 (W)

By revealing the limitations of positivism, the interpretive approach became an alternative that described based on the sociology of education. In this approach, the functionalism as the most frameworks for the sociology study changed into the new direction namely social phenomenology. The approach also replaced the scientific explanation of the positivist because it performed interpretive understanding, action, and subjective (intrinsic) meaning was called hermeneutics. Therefore, sociological research be more concerned with how social order is produced by revealing the network of meanings out of which this order is constituted and



reconstituted by its members and move towards knowledge as problematic. By them, it can be distinguished between human action and human behavior. The approach in social science practiced aims to uncover the meaning and significances that requires critical appraisal and mediation by the judgment of the actor. In contrast, the critics of the interpretive are their inability to produce generalization and objective standards for verifying theory. In addition, their task of establishing interpretation of meaning did not exhaust the purpose of the social science.

Reflection

From the study of education, the interpretive approach can be applied in class when teacher want to know about their student's knowledge and how this knowledge is related to the organization of curriculum in the classroom and constructed organizing concept. This knowledge will bridge between student's prior knowledge and the new information to be learned by students. In addition, school organization by its rules can be seen to be the result of the continued affirmation through the everyday decision making practices. In this part, interpretive understanding, action, and intrinsic meaning of the school organization must be understood by teachers and administrators.

Question

The interpretive approach performed interpretive understanding, action, and subjective (intrinsic) meaning was called hermeneutics. How do we validate the individuals' own meaning in order not just as own explanation?

Summary #3 (Y)

Chapter three just tells about the interpretive. Growing dissatisfaction with the theory based on the Positivists, because it is too general, too mechanical and does not capture the complexities, nuances, and complexities of human interaction. Interpretive seeks an understanding of how we shape the world of meaning through interaction and how we behave towards the world we shape it. In search of this kind of understanding, interpretive theory approach and knowledge of the world is very different from the way the positivist theory.

So far there have been several approaches such as positivism and interpretative and each has a different tradition in social theory. Using an interpretive paradigm, we can see the phenomenon and explore existing experience. The interpretive approach departs from an attempt to find an explanation of the social or cultural events is based on perspectives and experiences of people.

Reflection

The nature of this paradigm believes that social reality consciously and actively built by individuals so that each individual has the potential to mean any acts committed. In other words, a social reality is the result of the formation of a series of interactions between social actors in a particular environment. For the interpretive paradigm, knowledge is not used to explain and to predict as well as the paradigm of positivism but rather to understand

For this paradigm, no science objective and value-free throughout the construction process humans are still involved in it. Humans have consciously or No. subjectivity that will affect the construction process of science. If subjectivity is integrated into the process, then science itself will be loaded with the values of humanism. Naming something or something created by man is a product of the mind in the form of ideas, concepts, and ideas. So that social reality is not something that is outside of man but something that has been.

Question

Interpretive seems ambiguous. Then, can we know what's the background of a social phenomenon happening?

Summary #4 (N)

This approach seems to be a reaction to the positivism and seeks to replace it with the notions of understanding, meaning and action. The authors quote Max Weber's famous



definition of sociology as: "a science which attempts the interpretive understanding of social action..." This view, therefore, concerns itself with interpreting the actions of typical subjects in typical situations. By making the meaning of actions clear to the subjects involved it would achieve practicality by two means. First, by reducing the problem of communication between those whose actions are being interpreted and those who need these interpretations? Second, it may influence the practitioners to understand themselves and their situation. So if we can help participants understand the educational situation they are already in, they may then attempt to change, modify or reform it in order to achieve the purpose of educational research.

What is an interpretive view?

The interpretive view was called hermeneutics is a paradigm that criticized the positivism which saw the social reality in functionalism. Positivism saw the collective reality as a self-regulating mechanism, value-neutral explanation and human behavior as something that determined by impersonal laws that operate beyond the individual control.

The interpretive view saw the social reality is not an independent system; it was influenced by the actor who interpretative his community. Public reality is an intrinsic meaning structure and created by routine interpretative activities. On this interpretive view, the objectivity in a society is becoming a degree.

What is the criticism positivism to interpretive view?

The positivism has to criticize the interpretive view, as following;

- The interpretive view doesn't have the ability to produce wide-ranging generalizations or objective standard for verifying or disaffirm the theoretical accounts.
- The interpretive view neglected question of the origins, causes and result of actors, crucial problems of social conflict and social change.

What is the similarity between positivism and interpretive?

The similarities between positivism and interpretive view are the following;

- The researcher is standing outside the research situation.
- Both have rejected to adopt a disinterested stance which is concerned with critically evaluation and changing the realities.
- Both pursue the goal of methodology to describe social reality in a neutral, disinterested way.

Reflection

In my side, understanding the society with the interpretive approach or hermeneutic is a more humanistic and realistic view. When people create understanding of something, it can't be deprived from their society. It was impossible to create the concept without connected with their lives and their social relations (Vigotsky).

The interpretive placing the society is not an independent system. The objective of society is not some autonomous reality, but it influenced by the community. On this view, we saw that the society become a degree of objectivity because of communal actor, which is interpreting their public world. The objectivity in the society is only real so far as its member defined it. It was very different from the positivism point of view that understanding the object with the single perspective of objectivity, independent and detached from their social reality. We cannot see reality and make general conclusion with "one eye," or "one perspective," the truth it becoming relative in accordance with whom behind the thing.

Question

The reality is a subjective structured. It depends on the researcher interpreting their social world. The objectivity becomes a relative. How we can evaluate the 'objective relativistic' as valid information?

Dialogue of Interpretive

D: Do you believe, based on your experience, positivism and interpretive views of educational research have contributed to practice? If yes, give examples, if not, why not?



The basic principle of positivism is used by us to be looking for data that can be verified by other researchers who qualified from party anywhere in the world. Positivism is rooted in something definite, factual, and real, from what is known and is based on empirical data. For example when in a subject matter explains the occurrence of rain then it will require students to think why that happens there must be rain because rain or evidence why that happened, so on this will realize creative generation can contribute to nation-building in order to become a better and competitive. Interpretive studies assume that people create and associate their own subjective and inter subjective meanings as they interact with the world around them. Interpretive researchers thus attempt to understand phenomena through accessing the meanings participants assign to them. The focus of the study is the interpretive human actions as an expression of a decision. For example character education it will go well and provide a positive impact, seen not only in learning the material but also from the behavior of teachers, families, and the environment and children's emotions.

N: The interpretive approach performed interpretive understanding, action, and subjective (intrinsic) meaning was called hermeneutics. How do we validate the individuals' own meaning in order not just as own explanation?

Each person constructs his or her own reality

Hs: Hermeneutics oriented pedagogy for researchers and society more in-depth, but is still considered to have a place can be further progress. Will mention hermeneutics oriented pedagogy ignored problems in the text, there is no argument in compliance with the interpretation of orientation, and the problem can still be reduced to a minimum and even problem solving method?

Hermeneutics is one kind of philosophy that studies the interpretation of meaning. The name of hermeneutics was taken from the Greek verb meaning hermeneuiein, interpret, assimilate, or translate. Hermeneutics in the late 20th century AD when it was renewed discussion of Paul Ricoeur introduces the theory. He defines hermeneutics as a way of interpreting the text, it's just, the way the text wider coverage than intended by the scholars of medieval and modern and a little more narrow than the one intended by Heidegger. The text studied in hermeneutics Ricoeur can be text materials as generally it can be a symbol, and myth. The goal is very simple, namely to understand the true reality behind the existence of the text

W: Interpretive seems ambiguous then can we know what the background of a social phenomenon is happening?

Y: The reality is a subjective structured. It depends on the researcher interpreting their social world. The objectivity becomes a relative. How we can evaluate the "objective relativistic" as valid information?

林: Function of education in the transmission of knowledge, How can I define knowledge? Principles of Education and Practice way to interpret whether the doctrine applies to today's social science and natural science education? Please explain it.

賴: When applying the interpretation of research orientation, how to avoid being influenced by other individual power? Whether the interpretation of the study only focused on the behavior of the main part of the social structure of the class, while ignoring the actual social situations?

郭: Often rely on the use of the interpretation of the theory of qualitative research process, and hope to help the body present them, and then again in this process to try to meet the requirements of objectivity, in the actual study, whether there is a basic gage can follow?

S: Educators how to overcome personal and subjective factors in order to interpret the attitude of empathy between theory and practice arising from differences, and thus to develop guidelines in accordance with the theoretical possibilities of teaching practice?

Ts: This article on the interpretation of the orientation of the proposed practice theory and practice are two-way communication (p.93.5 ~ p.94.1), and elaborate not only ideas, but also consider the context requires, and actors judgment. However, in the field of education, from the theoretical to the practical implementation of often less than effective, the reason for that? How to solve? [Hereby the relationship between theory and practice in the illustration may help identify the crux of the problem].



Critical Approach

Summary #1 (D)

Having looked at the positivism and interpretive methodologies in educational research and practice, we now look at the third methodologies. This methodology is called critical theory which has generated the idea of a critical social science. This paradigm requires the participation of the researcher in the social action and beyond that the participants need to become researchers. This is necessary because only the insiders can see the whole social action.

Critical social science is about social actions that are informed, and this can happen as a result of self-reflection by the participants. After this, the stage of enlightenment is achieved, and then lines of actions and strategies can be constructed. The purpose of this methodology is to assist practitioners to become informed of their problems and emancipate them from their frustrations.

Reflection

It seems to me that we needed a paradigm that unites the positivism and interpretive. And critical social science may be it. It advocates a kind of educational research that is conducted by educators themselves based on participation and collaboration. I believe this offers good methodologies because it can be the cause of transformation in educational practices.

I think this methodology has so far offered a better way of dealing with everyday life problems and has offered a way to improve the situation. But it seems the role of the investigator in this is not very clear. If the investigator is also the educator and is involved like other practitioners in the whole process, he will live with the consequence of the outcome, but what happens if he is not. Another important consideration is that the process of stating the issue, enlightenment, action and emancipation requires strict adherence to certain requirements that maybe beyond the capabilities of the some of the participants.

Question

What would you consider to be the main short coming of the critical social science paradigm?

Summary #2 (N)

What is behind the critical approach?

According to the limitations of positivism and the critics of the interpretive, and by stimulated of the fifth requirement of educational theory: *must reject positivist notions of rationality, objectivity and truth; must accept the need to employ the interpretive categories; must provide some solution of any distorted self-understanding; must be concerned to identify and expose those aspects of the existing social and must be able to offer theoretical accounts which make teachers aware of how they may be eliminated or overcome; and the question of its educational status will be determined by the ways in which its relates to practice*, therefore proposed a new approach, was called critical theory. The positive side of critical theory was the introduction of a rigorous conception of objective knowledge into the study of human and social life was regarded as a major gain.

What is an explanation of the Habermas Critical Social Science?

Habermas calls his theory of knowledge a theory of 'knowledge constitutive interests', because he rejects any idea that knowledge is produced by some sort of 'pure' intellectual act in which the knowing subject is himself 'disinterested'. Knowledge is never the outcome of a 'mind' that is detached from everyday concerns. On the contrary, it is always constituted on the basis of interests that have developed out of the natural needs of the human species and that have been shaped by historical and social conditions. The Habermas theory can be represented diagrammatically in the following way:



Interest	Knowledge	Medium	Science
1 Technical	1 Instrumental (causal explanation)	1 Work	1 Empirical-analytic or natural sciences
2 Practical	2 Practical (understanding)	2 Language	2 Hermeneutic or interpretive sciences
3 Emancipatory	3 Emancipatory	3 Power	3 Critical sciences

Figure 2. The illustration of interest, knowledge, medium, and science behind the three educational research paradigms

What are the functions of critical social science in practice?

1. The formation and extension of critical theorems which can stand up to scientific discourse.
2. The organization of processes of enlightenment in which critical theorems are applied and can be tested in a unique manner by action and reflection.
3. The organization of action that involves the selection of appropriate strategies, questions, and the conduct of the practice itself.

Reflection

In a critical perspective, the researcher or the teacher needs to develop a systematic understanding of the conditions that shape, limit, and determine action so that these constraints can be taken into account. And this is seen to require the active participation of practitioners in collaborative articulation and formulation of the theories imminent in their own practices, and the development of these theories through continuing action and reflection; it might also be described as 'action research'. Action research is simply a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understanding of these practices, and the situations in which the practices are carried out. In education, action research has been employed in school-based curriculum development, professional development, school improvement program, and systems planning and policy development. Action research was the goal of critical theory in education. In terms of method, a self-reflective spiral of cycles of planning, acting, observing and reflecting is central to the action research approach.

Question

What should be prepared first in order to carry out a good action research?

In fact, action research does not require a complex analysis, how does the level of its objectivity, validity, and reliability?

Summary #3 (W)

Criticism shows that the power of thought, experience is vital for human knowledge. Humans should be able to apply the thinking and the ability senses in every action so that they can gain experience and knowledge that can bring new ideas. In the learning process, if the community can not only learn the theory (memorize), but humans also need direct practice and apply theories (applying) are studied in order to gain knowledge and experience. For example, the public was given vocational training so that later they can apply these experiences in his life (entrepreneurship).

Reflection

Human nature has the talent and potential that was captured by sensory, experience gained from daily life that will bring knowledge to the individual. Humans need education to improve their quality of life becomes more and if people can not only learn through thought or experience but man needs both as a development of what is captured by the sensory abilities that will bring up thoughts. With the arrest of sense of what is seen, felt, heard, touched, and kissed the man could capture new knowledge and will bring that kind of thinking when we



saw that the cat was brown and white so that we can judge that the cat was pretty and beautiful or cat is ugly.

Question

Nowadays a lot of graduates whose profession are not suitable for his/her majors in college. According to you. What is the meaning of an education itself related to the theory and practice?

Summary #4 (Y)

The aim of critical theory is picking the relationship between theory and practice, in light of the criticism of positivism and interpretive approaches to social science. This paradigm has critic positivism that emphasizing only just theoretical and placed the researcher outside the phenomena. In addition, this paradigm also criticized hermeneutic that still placed researcher outside the reality. On a critical paradigm point of view, the education theory must be rooted in the self-understandings of educational practitioners. So the researcher is engaged with the reality. Furthermore, on this paradigm the action research was very crucial, because on this method, the teacher's reflection is the most important during knowing and understanding the phenomenon. Moreover, educational theory is must provide ways of distinguishing ideologically distorted interpretations from those that are not. It must all so provide some view of how any malformed self-understanding is to be overcome.

Reflection

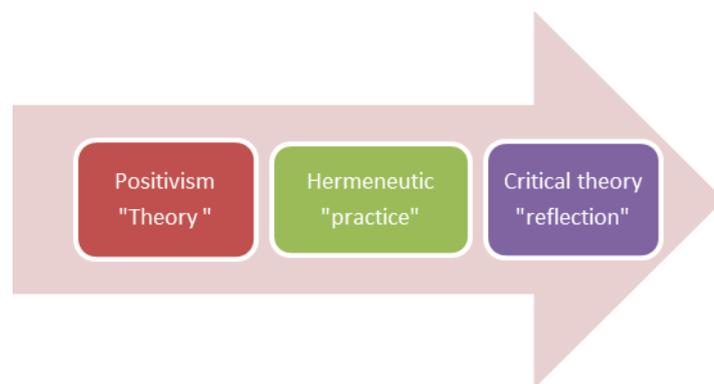


Figure 3. The paradigm change of three educational-oriented researches

In my opinion, a critical paradigm is an approach against the condition, that the truth about the phenomenon is determined by others (in this case the researcher which is an outsider and not engaged with the reality, such as on positivism and hermeneutic point of view). On positivism, the reality understood by the theory. This theory must be developed by empirical and measurement condition. Today, these demands are understood very limited and did not cover the human reality itself, which is more holistic. In hermeneutic, only the theory is not enough. The reality could be understood by theory and practice. On this paradigm, the theory (that must be empirical) has had limitation, probably, in reality, there is an experience in practice, that not covered by the theory; alternatively, the theory is not connecting with the practice. So on this paradigm the experience; action and practice are determined on decision.

On the critical paradigm, the reflections upon the subject are concerned. Due to the assumption that the subject who connected and involved, in reality, it is more aware of the phenomena that we want to understand. The researcher is involved in the situation. It was different with another paradigm that the researcher is outside. How might other people that not connecting with the reality will have been better understanding of the situation? On this paradigm, individual reflection is more appreciated and accepted. In addition, on critical paradigm, multi perspective and variety of unknown information becomes a necessity and board. Furthermore, the emergence of new science would be more diverse and humanist.



Question

Due to the reflection is relied on the individual experience that was subjective. How to maintain this personal reflection become more objective, credible, steady, and could be accounted for science?

Dialogue of critical approach

賴: Critical theories on Bernstein's proposed policies will influence doubtful people, even though Habermas was made to explain, but the problem seems to exist between them still exists. Is there a way you can overcome the problem with the gap between theory and practice?

C: How can you achieve liberation? How to achieve "true" self-understanding and self-reflection, and to achieve ideological neutrality, objectivity?

D: What would you consider to be the main short coming of the critical social science paradigm?

N: What should be prepared first in order to carry out a good action research?

In fact, action research does not require a complex analysis, how does the level of its objectivity, validity, and reliability?

W: Nowadays a lot of graduates whose profession are not suitable with his/her majors in college. According to you, what is the meaning of an education itself related to the theory and practice?

K: A strong emphasis on critical theory dominates the ideological side, but in reality the situation, and to achieve this goal seems more difficult because someone in the process of socialization, the number of those involved in "imitation" behavior, but imitation must engage certain ideological components, so that in practice, how will we implement this goal?

Ts: From the point of view of the three educational-oriented research theories for practice, the relationship is shown below, hereby teaching us: Theory vs. practice diagram



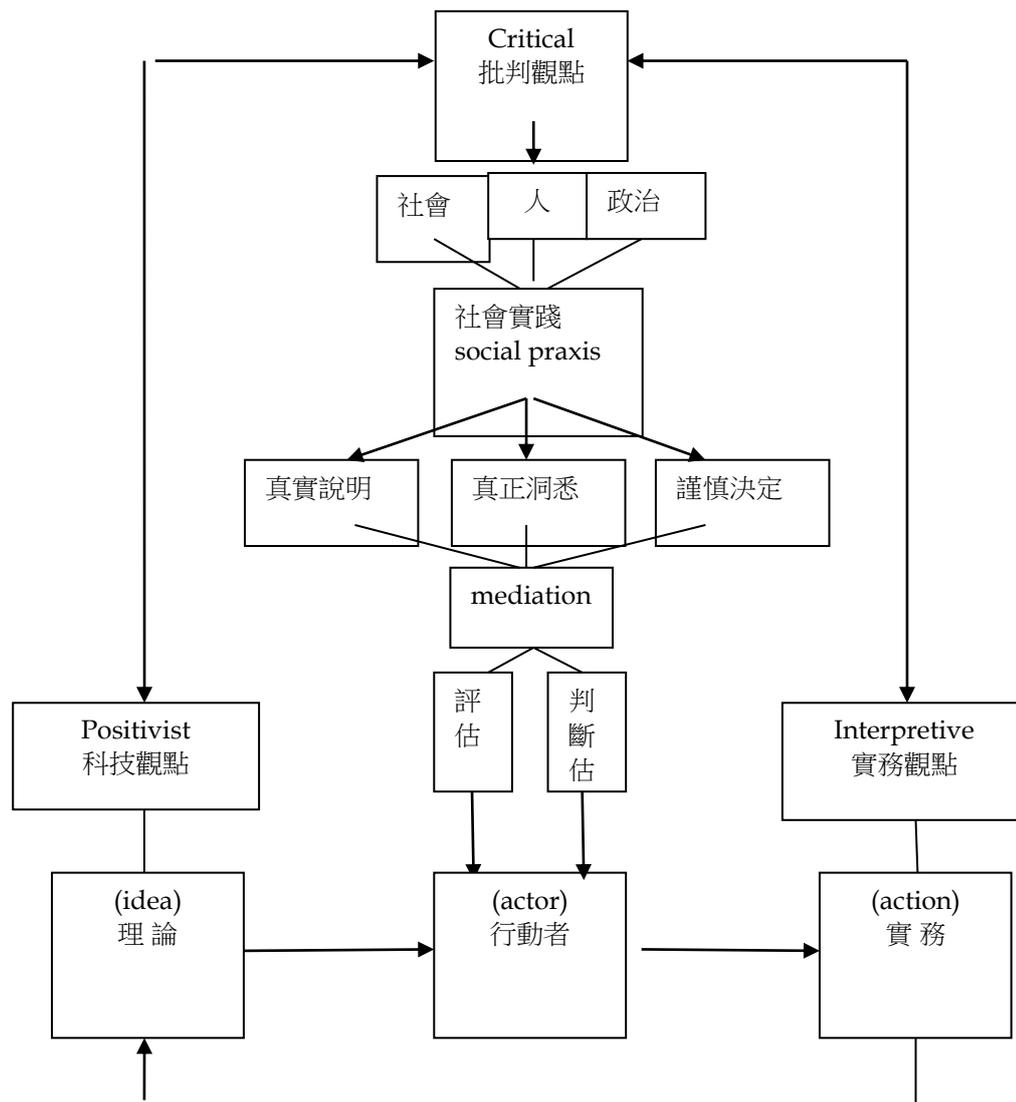


Figure 4. The relationship of technical-positivism, interpretive-hermeneutics, and critical-emancipatory (created by Ts)

CONCLUSION

This paper rise up again the old book, "Becoming Critical" written by Carr and Kemmis (1986) due to the whole content is essential for educator and students from undergraduate to doctoral level. In simple, the book narrated three basic educational research methodologies among all chapters: technical-theoretical-positivism, practical-interpretative-hermeneutics, and critical-reflection-emancipatory paradigm. The introduction in positivism part quickly became apparent that the element of humanity plays the most important part in educational research. Considering this approach, readers must act like positivist thinking and belief that the aims, concepts and methods of the natural sciences are also applicable in social scientific enquiries because the explanation in the natural sciences provides the logical standards by which the explanations of the social sciences can be assessed. Meanwhile, the interpretive approach performed interpretive understanding, action, and subjective (intrinsic) meaning was called hermeneutics. On the other hand, the aim of critical theory is picking the relationship between theory and practice, in light of the criticism of positivism and interpretive approaches to social science. This last paradigm has critic positivism that emphasizing only just theoretical and placed the researcher outside the phenomena. In addition, this paradigm has also criticized hermeneutic that still placed researcher outside the reality.

ACKNOWLEDGEMENTS

The authors give a credit to the teachers (Professor) who gave us much knowledge in the course of "Methodologies of Educational Research" when they pursued doctoral degree in education (Ph.D. Ed) at National Dong Hwa University (NDHU), Taiwan. Therefore special thank is rewarded to Prof. Wei-Yu Liu, Prof. Yi-Fong Pai, and Prof. Te-Sheng Chang. Special thank is also dedicated to the contributors or narrators in this narrative study included a group of doctoral student in education field who pursued their degree in NDHU, Taiwan.

REFERENCES

- Carr, W. & Kemmis, S. (1986). *Becoming critical: Education, knowledge, and action research*. London and Philadelphia: The Falmer Press.
- Floersch, J. (2000). Reading the case record: The oral and written narratives of social workers. *Social Service Review*, 74(2), 169-191.
- Floersch, J., Longhofer, J.L., Kranke, D., & Townsend, L. (2010). Integrating thematic, grounded theory and narrative analysis: A case study of adolescent psychotropic treatment. *Qualitative Social Work*, 9(3), 407-425.
- Riessman, C. K., & Quinney L. (2005). Narrative in social work: A critical review. *Qualitative Social Work*, 4(4), 391-412.
- Ryan, Marie-Laure. (2007). Toward a definition of narrative. In D. Herman (ed), *The Cambridge companion to narrative*, pp. 22-35. Cambridge: Cambridge University Press.
- Suprpto, N., Ku, C.-H., Cheng, T.-H., & Prahani, B.K. (2020). Editorial: The Launch of Studies in Philosophy of Science and Education (SiPoSE). *Studies in Philosophy of Science and Education*, 1(1), 1-3. Retrieved from <https://scie-journal.com/index.php/SiPoSE/article/view/3>.

Authors:

* Suryawahyuni Latief (Corresponding Author)
Institute of Social and Political Science,
Sekolah Tinggi Manajemen Informatika Dan Komputer Nurdin Hamzah,
Jl. Kolonel Abunjani, Sipin, Jambi, Indonesia
Email: niniek_yuni@yahoo.com

Wolter Parlindungan Silalahi
Department of Curriculum Design and Human Potentials Development
National Dong Hwa University,
Hualien, Taiwan

Yeni Rachmawati
Department of Early Childhood Teacher Education
Indonesia University of Education,
Bandung, Indonesia

