

## **Analysing Paradigmatic Influences in a Particular Research**

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### **Abstract**

*The main purpose of this paper is to examine the constitutive role that paradigmatic alignment plays in the conceptualisation, conduct and finding of a research. An extensive summary of three types of paradigms will be mentioned to base the analysis on a clear analytical point of view. In addition, a study has been identified and analysed in this paper as task one shedding the light on its paradigm, research question, research method, findings and conclusion. This analysis will focus on the nature of the research question, the appropriateness of the research method and the nature of the findings and conclusion. The second task will be the conceptualisation of the mentioned research from another paradigm position. Some identifications and justifications of how the research question, research method, findings and conclusion would be reconfigured.*

### **The Research Paradigm**

The research has been described as a systematic investigation where data are collected and analysed (Burns, 1997). The research paradigm is described as the researcher's basic set of beliefs that guide the researcher through the development of the research (Denzin & Lincoln, 2005). Any particular study should state the research questions or aim at the very beginning followed by the adoption of the appropriate research paradigm. Some research papers prefer not to mention the adopted paradigm through the progress of the research but this may lead them later to discover that an assumption made was incompatible with the methodology chosen. Also, not considering the paradigm in a particular research may lead the researcher to discover that the view of what constitute valuable knowledge for the given research would not be measured in a meaningful ways (Morris, 2006). This determines the importance of adopting the appropriate paradigm in any particular research. The following are descriptive information about three types of paradigms but it should be necessary to mention briefly the components of each research paradigm. Each research paradigm is composed the following components: ontology, epistemology and methodology (Denzin & Lincoln, 2005).

The ontology indicates the assumptions that the researcher makes about reality and how the research looks at the reality. More precisely the ontology of a paradigm is described as the image in which the researcher obtain about social reality (Denzin & Lincoln, 2005). Blaikie (2000) defined the ontology of a paradigm as the assumptions that are made about the nature of a social reality and what constitute the social reality. The epistemology of a paradigm refers to how the theory of knowledge is built in social reality (Blaikie, 2000). This component focuses on the knowledge gathering process and how to be clearly understood. It also focuses on the possible way of gaining knowledge about social reality especially its validity and used methods (Blaikie, 2000). The methodology of a paradigm refers as stated by Blaikie (2000) to the most appropriate way of gathering knowledge of a social reality. In the methodology of a paradigm a construction of some guidelines are to be considered to ensure that the gathered knowledge are authentic and addressing the research questions along with its design (Blaikie, 2000).

### **The Positivist Paradigm**

The positivist paradigm refers to the scientific method or sometimes to the science research, which aims to test a theory or describe an experience through observation and measurement (O'Leary, 2004). The positivist paradigm builds the ontological assumption about the social reality, which only constituted of realities (Schunk, 2008). The epistemological side of this paradigm therefore is to the possibility of observing these realities in an objective way (Schunk, 2008). Schunk (2008) stated that knowledge from a positivist paradigm should be measurable, objective value free and universal. Therefore, the correlation in the field of education should be precisely figured as they can be figured in natural science.

In terms of the methodological side, the positivist paradigm is most commonly aligned with quantitative methods of data collection and analysis (Mackenzie & Knipe, 2006). Although qualitative methods can be used within this paradigm, quantitative method is mostly the predominate (Mackenzie & Knipe, 2006). Mackenzie and Knipe (2006) stated four examples of data collection tools as an instruments used in this paradigm: experiments, Quasi-experiments, tests and scales.

### **Interpretivist Paradigm**

The interpretivist paradigm indicates that the research is value-bound and impossible to differentiate causes and effects (Blaikie, 2000). In this paradigm, both knowledge and the researcher can't be separated since the researcher is the only source of the reality (Mackenzie & Knipe, 2006). Although a combination of both qualitative and quantitative data collection method would be possible in this paradigm but the most commonly aligned is the qualitative method (Mackenzie & Knipe, 2006). Mertens (2005) suggested that the reality in the interpretivist paradigm is considered social constructed. Moreover, Creswell (2003) stated that the researcher in the interpretivist paradigm depends upon the participants' point of view of the case being investigated. The most commonly used methodology in this paradigm is the qualitative data collection methodology and analysis (Mackenzie & Knipe, 2006). A combination of both methodologies quantitative and qualitative, mixed methods, can be utilized to support a wider description up on qualitative data collection methodology (Mackenzie & Knipe, 2006). Mackenzie and Knipe (2006) stated four examples of data collection tools as an instruments used in this paradigm: interviews, Observation, document reviews and visual data analysis.

### **The Critical Paradigm**

The critical paradigm is considered as a response to both the interpretivist and positivist paradigm. It attempted to overcome the reduction of the positivist and the conservatism of the interpretivist (Davis, Smith, & Underhill, 2009). The ideology self-reflection is explicitly introduced in the critical paradigm in terms of knowledge processing (Davis et al., 2009). This paradigm apply the same epistemological and ontological assumptions as the interpretive paradigm but differs in terms of its methodology (Morris, 2006). Morris (2006) stated that the researcher in the critical paradigm should critique the subject of a particular study from experienced perspective. This means for example if a person is using an innovation, this person's perspective towards the innovation should not be neglected in terms of criticism (Morris, 2006). Morris (2006) also indicated that knowledge in this paradigm is a shared aspect between all of the research members.

### ***Task One: The Paradigm of the proposed research, Critical Analysis***

The article selected for this task was written by Hu and McGrath (2011) and titled in Integrating ICT (Information and Communication Technology) into College English: An implementation study of a national reform. The article describes a mixed method approach in the data collection and analysis. In addition, three kinds of instruments for data collection: case study, semi-structured observation and interviews were explicitly used. The following is a briefly background of the selected article's content.

#### **1.1 Background Information about the Selected Article**

The study examined the ICT implementation into English classroom teaching and learning in a specific institution from the perspective of EFL (English as a Foreign Language) teachers (Hu & McGrath, 2011). The research initiated two main questions: What is the profile of the implementation of College English reform in terms of integrating ICT in English teaching? What factors have influenced ICT implementation in this national reform? In answering the previous questions, the researchers chose both quantitative and qualitative approach in their research. A survey constructed for EFL teachers along with semi-structured observation and individual interviews. The participants were various EFL staff in the institution: teachers, administrative staff. The focused group of percipients were EFL teachers and students. All participants were first asked to answer the constructed survey dealing with the issue associated with ICT. Followed by classroom non-participant observation focusing on the use of ICT in teaching and learning English. The observer in this stage just observed what was going on in that classroom but was not participating or being involved. The final step was conducting interviews for EFL teacher and students seeking their perspective towards the use of ICT in English classes. It should an important issue to declare that this study was built upon two theories: diffusion of innovation by Rogers (2003) and the new meaning of educational change by Fullan (2007) as a conceptual frame work for this article.

## **1.2 The Paradigm within which the Research is Conducted**

After extensive reading and critical analysing of the selected article the judgment call has come up in terms of the research paradigm used in this article. This research has composed mixed methods in which it was difficult to investigate what paradigm was being used. However, through the research instruments and findings, it can be clearly said that this research is conducted under interpretivist paradigm with some aspect of the positivist paradigm. Although a little claim made up on the positivist paradigm since the use of survey in quantitative data collection and analysis but the interpretivist paradigm was the predominant in this research. As stated earlier this paper that the interpretivist paradigm is commonly used to address a qualitative method while quantitative method can be utilized (Mackenzie & Knipe, 2006). The selected article was composed of mixed methods but the predominate was the qualitative method. This clearly appears since the use of the semi-structured observation and interviews which are commonly used in the interpretivist paradigm (Mackenzie & Knipe, 2006). Mertens (2005) suggested that the interpretivist paradigm depends on the participants' point of views of the situation being studied. This obviously was applied in the selected article, which relied upon the EFL teachers and students to collect the data needed for this research. The following are critical analysis of the given article's components. The researcher was capable to manipulate the research between the interpretivist paradigm and the positivist paradigm. This manipulation was in some extent an intelligent decision for a very important reason. Mackenzie and Knipe (2006) stated that any particular research study which is purely conducted under the interpretivist paradigm may consider a problematic since the outcomes will be subjected to bias.

## **1.3 The Nature of the Research Aims/Questions**

The selected article initiated two main research questions:

- What is the profile of the implementation of College English reform in terms of integrating ICT in English teaching?
- What factors have influenced ICT implementation in this national reform?

In analysing the nature of the previous research questions, it should be taken into account the choice of the question word at a start point. Griffiths (1996) assumed that research questions started with 'what' are likely more appropriate for addressing both qualitative and quantitative researches. These types of questions generate sub-questions that would directly lead to the answer of the main research question (Griffiths, 1996). The previous mentioned questions are commonly used in finding out about attitudes, reasons, cause, and effects etc. The second research question is more likely to be addressed through a qualitative data collection and analysis method since it created descriptive answers rather than statistically analysis.

## **1.4 The Appropriate of the Research Method**

The methodology that has been adopted to conduct the selected research study was mixed method, which was a combination of both quantitative and qualitative data collection methods. In terms of quantitative data collection method, the researcher used a constructed survey as an instrument for collecting data. The data collected through this survey were coded and fed into SPSS and statistical analysis software package SPSS script 14.0 was applied to analyse the quantitative data. The finding emerged from the survey formed the interments used later: observation and interviews. In terms of the qualitative method, the researcher used semi-structured observation and interviews as instruments for collecting qualitative data. The main aim of this observation was to determine whether the ICT facilities are available in classroom or not without participating in any form. The predominantly use of the qualitative data collection method used in this research study is considered as another evidence for the claim made about the paradigm of this research study which intended to be the interpretivist paradigm with some aspect of the positivist paradigm. According to Mertens (2005) the researcher theoretical intent has implications for each decision made in the research including the choice of method. The choice of mixed method in this research was the best and most appropriate best to address the given research questions. Although mixed method failed to investigate the deeper rot of qualitative method as claimed by Denzin (2010), but the researcher was capable to overcome this dilemma by using descriptive analysis of the mixed method.

## **1.5 The Nature of the Findings and the Conclusion**

The findings in the research as stated by Hu and McGrath (2011) indicated that the reform had represented a challenge for teachers who were expecting to adopt ICT in their daily activities inside classrooms. In addition, it indicated a lack of ICT facilities in classrooms with the limited skills of ICT obtained by EFL teachers. The insufficient communication networking place with ICT support and training were also mentioned as remarkable findings. These findings were absolutely meaningful and applicable since the use of precise instrument while collecting data. The findings are expressed thoroughly and extensively in a descriptive manner in which sufficient details about each given result are provided. The absence of statistics charts, tables and graphs was clearly discovered in this research since the predominant focus was through qualitative and descriptive analysis. However the researcher mentioned some numbers showing the frequency of the respondents but the main focus was through descriptive analysis. Mackenzie and Knipe (2006) suggested that in the interpretivist paradigm, instruments such as observation and interviews are commonly used for gathering data in qualitative inquiry. This also support the claim made earlier about the paradigm of this research which was the interpretivist with some aspect of the positivist paradigm.

The conclusion was written almost half a page stating the outcome of the research in brief sentences. In the conclusion the researcher elaborated upon the top-down educational system which lead to a poor track record for educational improvement (Hu & McGrath, 2011). Some recommendations were mentioned in the conclusion for future researchers to be considered. The researcher included more than two references with full details about the educational reform process, which could be better, included in a literature review not in the conclusion. The descriptive manner of rewriting short sentences was the most common aspect of the conclusion.

### ***Task Two: Reconceptualise the Research from another Paradigm***

In this task a reconceptualisation of the research from another paradigm is to be placed into focus. The new paradigm selected to this process is the critical paradigm. A brief background of the critical paradigm will be considered first. Then an identification of how the research questions, methods, findings and conclusion would be reconfigured from the new selected paradigm will extensively analysed.

#### **2.1 The Critical Paradigm**

Fossey, Harvey, FMcDermott, and Davidson (2002) stated that each person's thinking in the critical research paradigm is socially and historically constructed. The aim of the critical paradigm is to uncover myths or hidden truths that account social and guide people for change their society (Fossey et al., 2002). The difference between the tow paradigms, the interpretivist and the critical, should be taken into consideration to avoid misuse and misunderstanding. The interpretivist paradigm emphasizes the meanings in human experiences regardless of their origin while the critical paradigm emphasizes the social and historical origins of meaning regardless of any collective of expression that might hold (Fossey et al., 2002). Knowledge in the critical paradigm is seen acquired through critical discourse and debate (Fossey et al., 2002). The primary aim of the implication of methodology in this paradigm is not to reach an acceptance of a discovery but to foster self-reflection, mutual leaning participation and empowerment (Fossey et al., 2002).

#### **2.1 Reconceptualization of the selected research article from the Critical Paradigm**

The process of reconceptualization of a research from another paradigm is sometime known as paradigm shift. In this paradigm shift which is rarely happened, one conceptual world view is replaced by another (Fossey et al., 2002).

#### **2.1 The paradigm within which the research is conducted**

The selected research article was constructed under the interpretivist paradigm with some aspect of the positivist paradigm where. A combination of both quantitative and qualitative methods was used for data collection and analysis. Observation. Interviews and survey were the instruments used to collect the data where the predominant qualitative method of analysis was conducted. At this stage of reconceptualising the research from the critical paradigm, a quantitative method of data collection and analysis is selected. The instrument used for collecting data will be only a survey and software of SPSS/ANOVA will be used to analyse the collected data.

### **2.1 The Nature of the Research Questions after Reconceptualization**

The research questions the selected article was shaped upon the two mentioned paradigms. In the critical paradigm the research questions will be reshaped according to the selected quantitative method of data collection and analysis used in the process of reconceptualization. One type of the quantitative research question is the descriptive type in which the descriptive question aims to measure the variables existed in that research. The reshaped research questions will be as followed:

How often does the implementation of ICT in English teaching influence the profile of college English reform?  
How often does this implementation be influenced by certain factors?

The choice of question word “How” indicates the statically answer which leads to a quantitative method of data collection to be used.

### **2.1 The Appropriate of the Selected Research Method**

The method of data collection and analysis selected for the process of reconceptualise the research is quantitative method where a survey constructed to collect data. This method is most appropriate to address the give reshaped research questions mentioned previously. The sample will be selected randomly and the survey is sent individually to each participants. Survey will be collected later and spreadsheet of the data is analysed as first stage of data analysis. The appropriateness of the research method leads to the appropriateness of the chosen paradigm in for this reconceptualization. This is to say that this research benefits best from the critical paradigm in which the study’s aim is to determine the existence or absence of variables and secondly the influence of these variables on the implementation of ICT.

### **2.1 The Nature of the Findings and Conclusion after the Reconceptualization**

In the findings of this research after the process of reconceptualization, it can be obviously seen that the collected data have been transformed to numbers. In this stage, charts, tables, graphs and other statistical forms of numbers are mentioned in order to analyse the collected data. Frequencies and percentage are predominantly used to describe the quantitative data. The use of numbers is always the common aspect of the findings since it indicated the quantitative method of data collection and analysis. The critical paradigm appears in terms of critiquing the existing reality of ICT in English teaching. It also appears through the recommendations given to advise the EFL teachers of the benefits usage of ICT in teaching.

### ***Conclusion***

In this paper an attempt to identify and discuss the paradigm of a chosen research article was placed into focus as the first task. Then reconceptualising this research article from another paradigm was extensively expressed and discussed. This way of dealing with research aspects such as paradigms, research method and then the process of reconceptualization are considered as a great tool for researchers. It allows them to be aware of the selected paradigm and its alignment with the research method, questions, findings and conclusion of their research. It can be clearly claimed that by this way each research should be not only valuable but also reliable.

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