Research Paradigms within a TESOL Context

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26th November 2013

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PART 1

1. INTRODUCTION

This essay will consider my current paradigmatic position and how this has developed and been influenced both by the English as a Foreign Language (EFL) context within which I have taught and the nature of the educational business organizations I have worked in. These factors worked initially to shape my position primarily in the interpretive paradigm although with a need to manage positivist data favoured by business organizations. However, my position has been shifting recently and it is within the area of critical theory that I see opportunities to advance my research interests in the areas of curriculum and materials development.

2. EDUCATIONAL RESEARCH

When embarking on educational research, it is useful to consider what that will entail. Clough and Nutbrown (2007) suggest that it will be to persuade, otherwise there would be little need to conduct the research at all. Other definitions, such as that proposed by Anderson (1998), indicate that research revolves around a particular problem or issue, this being especially true for those working in a school context. Bassey (2007:147) suggests that it “aims critically to inform educational judgements and decisions in order to improve educational action.” In attempting to do so, educational research “embraces
the realms of empirical, reflective and creative research; [...] and the positivist and interpretive paradigms” (Bassey, 2007:147). The notion of a paradigm, or belief system, is outlined by Kuhn in *The Structure of Scientific Revolutions* (Crotty, 1998) and is described as a framework that enables the researcher to provide justification for the choice of research methodology and, subsequently, methods (Willis, 2007).

3. **PARADIGMS**

The concept of a paradigm is of critical importance to a researcher as it underpins their theoretical framework. The paradigm influences the epistemology, which in turn influences the choice of methodology and methods. The reverse, according to Crotty (1998), is also true. Mackenzie and Knipe (2006: Research paradigms, para. 2) state, “Without nominating a paradigm as the first step, there is no basis for subsequent choices regarding methodology, methods, literature or research design” thus underlining the central task of the research paradigm. In his definition, Bassey (2007) mentions two paradigms at times in competition, but potentially complimentary: positivism and interpretivism. I shall now turn to a discussion of these paradigms, as well as pragmatism and critical theory.
3.1 Positivism and Post-positivism

Positivism is held as the received view of science, relating closely to empirical science and an objectivist ontology where the object under observation with its latent meaning is subsequently discovered as a result of research undertaken. With such an approach, the researcher takes the position of an independent and detached observer, seeking to discover in order to achieve a better understanding of the everyday, social world (Kincheloe & Tobin, 2009).

Guba and Lincoln (1994:113) indicate that positivism depends on “verified hypotheses that can be accepted as facts or laws” referring to an inductive approach. Inductive reasoning involves specific observations resulting in tentative hypotheses that can then be generalized into theories and laws, a bottom-up approach to research. Indeed, Schofield (2007) confirms that it is generalization that is one of the main driving forces of science. It was Auguste Comte who suggested this route to generalization, with scientific reasoning resulting in progressive discovery (Kinchoele & Tobin, 2009). Moreover, it was through scientific reasoning that Comte and others thought that social progress would be achieved (Kinchoele & Tobin, 2009). However, the scientific world and the everyday are quite different, according to Crotty (1998), since the scientific world is one which is based on absolutes and is regular and constant, quite separate from the uncertainties and ambiguities of the everyday world.
Nevertheless, this focus on absolutes and absolute truth through verification has been challenged. It was Popper who intimated that, rather than verification, it should be falsification that empirical science be based on, a serious challenge to the notion of inductive reasoning (Crotty, 1998). Popper believed that it was not possible to prove a theory absolutely true, it being possible to only prove that theory not false. Even then it could only be “provisionally accepted as true”, thus remaining “tentative for ever” (Crotty, 1998:32). This move towards post-positivism was to have represented a major paradigm shift for the natural sciences, although Laudan in Kincheloe and Tobin (2009:514) describes it merely as a “hiccup in the history of epistemology.” Further criticisms of positivism’s received view come from Guba and Lincoln (1994) who consider the fact that positivists try and act as independent observers as problematic. They do not believe that human behaviour and the meaning-making experiences that are generated by such behaviour can be seen as independent entities. Guba and Lincoln (1994) continue by saying that all paradigms are human constructions and are, therefore, subject to error.

Donmoyer in Lazaraton (1995) asserts that the application of positivism to understand the specific and individual problems of the classroom is not always appropriate. Indeed, the nomothetic nature of positivism clashes with the idiographic nature of the classroom, suggesting that generalizations cannot arise from individual classroom situations (Guba & Lincoln, 1994).
my particular context, a large multi-national organization delivering English language teaching to a wide variety of students, such classrooms are a part of an organizational structure that exhibits certain characteristics of positivism.

Large organizations are, to a greater or lesser extent, deterministic and, like positivism, nomothetic – interested in the need for control. Kincheloe and Tobin (2009) demonstrate that, despite positivism and post-positivism falling out of favour in recent years, their ideologies can still be found and identified in various different aspects of western culture. One such aspect is in “fiscal entities” (Kincheloe & Tobin, 2009:514). Such corporations and organizations can be considered deterministic from the point of view that they have rules and regulations that all staff are expected to follow. This can have a deprofessionalizing effect on staff, the teaching staff in my context, and can be dehumanizing and oppressive (Kincheloe & Tobin, 2009). The level of managerialism within an organization depends on the extent to which its behaviour is considered top-down, but often involves the setting of targets and subsequent performance measurement (Hammersley, 2007).

I have not subscribed to the positivist or post-positivist paradigm in the past, as I have not considered it to be a suitable vehicle for classroom research. All classrooms are different and teaching the same lesson to a variety of different students will often yield different outcomes. Positivist or post-positivist research aims for data that are generalizable although that is not always required in classroom research. Nevertheless, I have often needed to interact
with positivism because, quoting Bassey (2007:143), “*when concern is to provide knowledge for policymakers, it is quantitative work in a positivist paradigm that is often appropriate.*” Such policymakers would, in my opinion, include senior business managers. Business quantitative data includes the likes of Key Performance Indicators (KPIs) that are representative of the “*hard, objective and tangible*” data associated with positivism (Cohen et al., 2007:7). While KPIs are useful in identifying problems and issues at the school level, they may not be capable of explaining why such events occurred.

Businesses are also keen to see best practices being identified and implemented in a wider setting. Best practices can reveal that business policy is being evidenced rather than it being considered experimental (Mahboob & Tilakaratna, 2012). The identification of a best practice in a local school and its subsequent integration across the school network represents an inductive approach, with generalization being the goal. However, in an educational organization such as mine, it is often difficult to see how specific aspects of teaching or effective classroom management can be generalized across a large, multinational and multicultural school network. For example, classroom management can produce results likely to be quite different across a multitude of different settings. Mahboob and Tilakaratna (2012) warn against simply implementing best practice across the board, blanket style, particularly in multinational and multicultural situations. Bassey in Bell (2010:10) suggests that “*fuzzy generalizations*” may be employed in such circumstances using language such as “*it is possible, or likely or unlikely that*”
(Bassey in Bell, 2010:10) what was found in one particular school will be found in another school in the network.

Although it can be seen that the positivist business data can be helpful in identifying areas of the business requiring improvement, Gage (1989:5) rejects positivism in educational research, instead promoting his interpretive critique stating, “human affairs simply cannot be studied with the scientific methods used to study the natural world” (Gage, 1989:4).

3.2 **Interpretivism and pragmatism**

Unlike the process of discovery in empirical science, the interpretive paradigm sees meaning being constructed through people engaging and interacting with their world, resulting in multiple realities being created. Consequently, this unique, individual meaning making reflects a constructivist epistemology, which Crotty (1998:58) describes as, “meaning-making activity of the individual mind.” At this point, constructivism should be distinguished from social constructionism. While constructivism has its concentration on individual meaning making, social constructionism is focused on “the collective generation [and transmission] of meaning” (Crotty, 1998:58). Consequently, constructionism has culture at its roots.

Constructivism has had great influence in educational research and, as an educator, I have worked with a constructivist spotlight, adopting a
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kian approach to my teaching through scaffolded learning that aims to develop my students’ language abilities within and beyond the Zone of Proximal Development (ZPD). According to Van Lier (2001), the ZPD is an area where the teacher necessarily focuses pedagogical action to assist the language development of the learner. The teacher will assist the learner through scaffolded activities, providing guidance throughout a task before removing the scaffolding in order that the student proceeds unaided (Van Lier, 2001). For me, this epitomizes the nature of teaching; truly understanding the needs of the individual student and devising lessons and activities that will help progress that student’s learning and developmental needs. Crotty’s definition of constructivism as “meaning-making activity of the individual mind” (Crotty, 1998:58) can, in my opinion, be applied to student language development in the classroom. As this will happen at different stages, not only is that reflective of the individual nature of learning, but it is representative of the multiple realities of classroom life. Bassey (2007) alludes to these multiple realities through his discussion of the highly variable nature of teaching.

In terms of interpretivist research that is conducted within a school environment, the researcher may well be more interested in finding a solution to the research problem rather than in attempting to replicate the research in a different context. Denzin in Schofield (2007) indicates that interpretivists reject generalization of their research, this being because methodologies stemming from the interpretive paradigm may be employed
to provide data that is “personal, subjective and unique” (Cohen et al., 2007:7). Methodologies from interpretive theoretical perspectives include symbolic interactionism, phenomenology and hermeneutics. Although positivist approaches adopted by senior managers generate data that assist in the decision-making process, understandings arrived at by a teacher or school manager using interpretive approaches to school problems are no less relevant. That is suggestive of a spectrum along which I, as a former school manager, travelled depending on the nature of my work – positivist understandings at one end of the spectrum with interpretive understandings at the other.

This is considered by Johnson and Onwuegbuzie (2004:15) who propose the idea of a “continuum”; a mixing of methods and a rejection of Howe's (2009:428) “incompatibility thesis.” While I agree with Guba and Lincoln (1994) that the terms quantitative and qualitative should be reserved for data and not applied to a description of paradigms, Johnson and Onwuegbuzie (2004) are promoting the use of mixed methods within a pragmatic paradigm in educational research. They believe that while epistemology correctly provides a logic of justification for the way in which a research project is theoretically framed, the epistemology does not direct the researcher to adopt a particular methodology or set of methods without question (Johnson & Onwuegbuzie, 2004). Johnson and Onwuegbuzie (2004:16) continue by stating, “research approaches should be mixed in ways that offer the best opportunities for answering important research questions.”
This is echoed by Creswell (2009) when he suggests that mixed methods can provide the researcher with a deeper level of understanding since one method can build on the achievements of another method, although the achievement should be greater than that of either qualitative or quantitative methods separately (Creswell, 2009).

The mixed methods approach is certainly a valuable one for the likes of a school manager, someone who has to move between two paradigms that have often been seen in direct opposition. Such an approach provides a means for the school manager to operate within and between both paradigms, albeit with a great deal of flexibility, in a way that enables the research data from one paradigm to inform research data from another, and vice versa. Care will need to be taken as mixed methods approaches can be very time consuming, which will be looked at unfavourably by business managers, and the researcher will need to be very familiar with many types of approach (Creswell, 2009). Furthermore, there can also be an issue as to any priority given to the data collected, particularly in a business environment, which could lead to an imbalance in the research findings. Notwithstanding these issues, a mixed methods approach can be very effective for an educational business organization, “because figures can be very persuasive to policy-makers whereas stories are more easily remembered and repeated by them for illustrative purposes” (Gorard & Taylor, 2004:7). Consequently, in an educational organization with a business focus, such as my context, positivism and its business quantitative data and interpretivism
with its focus on generating understanding and action, can and should be seen as a necessary partnership rather than forces in opposition.

### 3.3 Critical Theory

While interpretivism can be a useful means of generating understanding of individual school issues, with pragmatism and its emphasis on mixed methods potentially deepening such understandings, they shy away from questioning and critiquing the hidden agendas behind such issues. This is a criticism also highlighted by Mack (2010) as regards interpretive enquiry. Johnson and Onwuegbuzie (2004:19) acknowledge that pragmatism would only result in smaller “incremental change” rather than greater transformations potentially sought after by critical theorists.

Due to the fact that the interpretive paradigm with its constructivist nature has a focus on the individual, it cannot be opened up to critique. To do so would be contradictory to the unique experiences underpinning such an epistemology. Social constructionism, by contrast, holds up culture, the driving force of human behaviour, as something that is capable of being questioned and critiqued (Crotty, 1998). It is critical theory with a constructionist perspective that can break down what Crotty (1998) describes as the sedimented layers of constructed meaning. Critical theory aims to remove this sedimentation and reveal the hegemonic agendas supporting them, rather like the lifting of veils described by Blumer (The
Open University, 2001) when trying to reach true perspectives. Sarup (1993), in his description of Foucault’s work, suggests that power and knowledge are inextricably linked with Habermas in Cohen et al. (2007:31) further indicating, “knowledge and its selection is neither neutral nor innocent.”

As a former school manager, I turned towards critical theory when addressing the issue of teachers becoming more independent and interdependent with their professional development. Action research and its focus on professional development was an area of research I concentrated on and employed in my school. According to Burns (2005:57) action research adopts a form of naturalistic enquiry and is a way of “creating meaning and understanding in problematic social situations and improving the quality of human interactions and practices within those situations.” Action research has many influences, social constructionism and the critical theory of Foucault and Habermas being just a few. It is interventionist by nature, following the identification of a specific problem or issue, and involves collaborative research in order to secure resolutions to those problems.

Action research for professional development purposes can have the effect of moving teachers towards being more independent and interdependent professionals as they are encouraged to investigate issues arising within their own classrooms and collaborate to reach solutions. This was the basis of the project initiated in my school in South China, and while it enabled more of the teachers to become independent and investigate the nature of classroom
issues for themselves, the extent to which such a project can be described as critical is a matter for debate. In order for a critical research project to be considered good or to have value, Guba and Lincoln (1994) suggest that it is necessary to determine how far the research is successful in breaking down ignorance and false impressions. Furthermore, the amount of action that is generated, and the extent of the transformation needs to be considered.

Concerning the action research project at my school, it gave teachers a voice and resulted in them being more collaborative generally. This continued and was sustained not only in my school, but also within other schools in the city. That was certainly a successful element of the project although it did not extend beyond the city and I am uncertain as to whether the best practices that emerged continue now. While action research can be used to combat ignorance, it is unlikely to be the primary focus for action research for professional development purposes. Crookes in Burns (2005) posits that action research belongs more to the teacher-as-researcher framework rather than the critical-emancipatory or radical-transformative frameworks that are normally associated with critical theory. I would suggest that it is the projects that are not appropriately critical and that action research as a methodology (or a paradigm if Burns’ argument is to be accepted) can be usefully and successfully applied in a critical setting. Burns (2005) confirms this as she outlines three types of action research: technical, practical and critical. Action research for professional development would likely fall into the practical category, a more subdued and neutral version according to Troudi (2006),
although it has to be considered that it may well build upon and perpetuate the already sedimented layers of meaning without critiquing or questioning why things are done in that way (Burns, 1999).

My move from school manager to curriculum and materials development, although in the same organization, has sparked something of a paradigm shift in my way of thinking. Before, my research would have been framed by the interpretive paradigm, with pragmatism providing the flexibility to enable me to operate within other areas, specifically positivism. However, now that I am responsible for curriculum and syllabus development as well as the academic quality of the materials that are produced for students in China, Russia and Indonesia, my research is adopting a more critical focus. I could be likened to a knowledge gatekeeper in my department; someone with the ability to decide what knowledge does or does not appear in my organization’s curriculum, syllabuses and associated materials. Critical research into this situation and the materials that are produced as a result could be undertaken through either hermeneutics or critical discourse analysis.

Hermeneutics is an interpretive line of enquiry and although interpretivism tends to be considered non-critical, theoretical perspectives like hermeneutics are more supportive of a critical stance. Being representative of an association between a text and its reader, hermeneutics suggests that meanings from texts are not only passed from one person to another, but also
between groups and societies (Crotty, 1998). Furthermore, it aims to understand the text at a level that is potentially greater than even that of the author. Consequently, hermeneutics is aiming to identify and uncover such a text’s hidden meanings as well as critique those assumptions that are taken for granted. Crotty (1998:110) argues that hermeneutics attempts to understand and question people’s perceptions since they may be “endemic to a hegemonic society and inherited from a culture shaped by class, racial and sexual dominance.” This strongly connects with the transformative nature of critical theory. Heidegger also saw hermeneutic interpretation as having an emancipatory function – enabling emancipation from “tradition, prejudice and evasion” (Slattery et al., 2007:540).

Related to the textual analysis of hermeneutics is Critical Discourse Analysis (CDA), a methodology associated with critical theory. According to Rogers et al. (2005:367) CDA concentrates on “how language as a cultural tool mediates relationships of power and privilege.” However, Fairclough (2010a:5) sees CDA as “a ‘moderate’ or ‘contingent’ form of social constructivism” since not all transformations are possible. Nevertheless, as a transformational model, CDA has the ability to contribute to change rather than simply present an interpretation of the social world (Fairclough, 2010a).

Therefore, I believe that hermeneutics as well as CDA may be usefully applied to curriculum documents and materials produced by my department since, as stated by Slattery et al. (2007:539), what ends up being included in a
curriculum is “a hermeneutic decision.” Nevertheless, conducting critical research within a large, foreign-owned organization in China is likely to have many difficulties, such as state censorship and political sensitivity, although it would remain a worthwhile enterprise.

4. REFLECTIONS ON MY PARADIGMATIC POSITION

This essay has enabled me to reflect on the types of research I have conducted over the previous few years, during my masters degree and now, at doctoral level, and how that has influenced my paradigmatic viewpoint. I see my paradigmatic position being influenced in a number of directions. First, as an EFL teacher, I saw my research being heavily influenced by the interpretive paradigm since I was investigating particular problems that were occurring in my classroom. The interpretive paradigm and its constructivist roots were of strong relevance to those circumstances. When I became a school manager as part of a large organization, it was important for me to be flexible and realize that my beliefs and worldviews were being influenced not only by interpretivism but also by the positivist nature of that multinational organization. At the time, it may have been the case that I considered these two forces in direct opposition but, upon reflection, I understand that positivism and interpretivism can be partners, and that I can work with them in a more pragmatic sense.
My recent job change into curriculum and materials development within the same organization has sparked a further paradigm shift. However, I believe the change in circumstances has provided an opportunity for the shift rather than is the reason for it. As the department within which I work is still relatively young and almost exclusively made up of native English speakers, there is the possibility of investigating the extent to which any hidden agendas are being manifested by those circumstances. Furthermore, the EFL industry in China is in an early but rapid state of development and the critical issues that are being addressed in other contexts (such as the dominance of the native speaker model) have not yet been fully considered. However, it has to be remembered that critical research could be potentially difficult in Mainland China with a limit on the extent to which such research can be carried out. Nevertheless, even small-scale critical research can have an appropriate impact on the status quo.
PART 2

1. ARTICLE 1 – A POSITIVIST STUDY

Below, I will discuss and critique a study by Jansen (2004) (see Appendix 1) concerning curriculum organization and its effect on study progress in higher education. The article was selected due to my interest in curriculum and my general interest in students’ study progress, both of which are relevant to my professional situation.

1.1 Paradigm discussion

The study falls within the positivist paradigm. It is examining the effects of curriculum organization and instructional characteristics of certain university disciplines on the study progress of first year students. The study adopts a deductive process (Cohen et al., 2007) whereby the theory and literature surrounding student success and study progress at university leads to the formulation of a series of hypotheses for testing and verification. From this, the researcher can attempt to make inferences for the purposes of generalization. In order to test and verify these hypotheses, quantitative data were collected with the researcher using statistical methods consistent with the natural sciences and adopting the position of a detached observer, undertaking the analysis in a controlled and predictable manner (Crotty, 1998). According to Guba and Lincoln (1994) this is consistent with
positivism; verifiable hypotheses being generalized into facts or laws. This is to be distinguished from post-positivism where the hypotheses are non-falsified, an approach that is not taken in this case. The fact that the data is analyzed statistically suggests that the knowledge is value-free with an objectivist ontology, this being consistent with positivism.

1.2 Topic and methodology

The study was designed to measure the effects of both curriculum organization and instructional characteristics on the study progress of first year students at the University of Groningen in the Netherlands. The methodology, a correlational study, involved the collection of data from 5151 first year students enrolled between 1987 and 1991 studying business administration, history, pharmacy, medicine, educational sciences and psychology. Creswell (2009) indicates the importance of outlining how a sample is selected although how and why the disciplines in this study were selected is unclear. Retrospective data related to prospectuses, timetabling, student characteristics and study progress were gathered and analyzed using a VARCL three-level random coefficient model, with the logistic regression model being used within VARCL. Student characteristics, curriculum organization and instructional characteristics comprised the three levels in the analysis. Such a methodology is consistent with the natural sciences and reflective of a positivist approach.
1.3 The aims and hypotheses

As a result of the researcher’s discussion of the theory and literature surrounding study progress and student success, eight hypotheses were established for testing through the VARCL model. Five hypotheses are related to curriculum organization and three are related to instructional characteristics. An operational definition of the dependent variable is given as the success rate on the first year examination within one year.

Eight independent variables are outlined in Fig. 1 below, these relating to the eight hypotheses. Student characteristics acted as control variables and student effort was the intercept.
<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Study progress</th>
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| **Independent variables** - instructional level | Orientation | Total number of lecture hours
| | | Total number of tutorial hours
| | Additional practice | Available additional practice possibilities
| | Feedback | Total number of feedback moments
| **Independent variables** - curriculum organization level | Spreading of tests |
| | Spreading of re-tests |
| | Number of competing parallel courses |
| | Two tests in one week |
| | Re-tests during a test week |
| **Control variables** - student characteristics level | Age |
| | Sex |
| | Grade Point Average (GPA) |
| **Intercept** | Student effort |

Fig. 1: A summary of the variables

The selection of student characteristics as control variables is appropriate as Jansen (2004) had already indicated those characteristics as being strong influencers of study progress. The eight hypotheses outlined may be considered associative hypotheses which, according to Cohen et al. (2007), relate to each other, but not necessarily in a causal manner. This could increase the risk of confounding variables (Pearl, 1998).
Moreover, Cohen et al. (2007) state that quantitative analysis often begins with the formulation of a null hypothesis although, in this study, there is no null hypothesis directly stated. Instead, the researcher has phrased the hypotheses as alternative hypotheses, indicating that there is either a statistically significant positive or negative correlation between the independent and dependent variables (Cohen et al., 2007). This weakens the research design as the null hypothesis is seen as stronger since it needs precise data analysis in order to show that it is not supported (Cohen et al., 2007).

1.4 Analysis

Quantitative data were collected and analyzed using descriptive and inferential statistics (Rowntree, 1981). Although there is consideration given to deviance, degree of freedom (d.f.) and statistical significance (p-value), no such consideration is given to effect size. Cohen et al. (2007) indicate that the effect size looks at how large the effect is, showing the degree of difference between the sample results and a null hypothesis, something the p-value is unable to achieve. This could potentially have a negative effect on external validity and the ability of the researcher to generalize her findings (Grix, 2004).
1.5 Findings

The hypotheses relating to the average number of parallel courses and the spreading of re-tests were upheld by the data. However, the hypothesis relating to the spreading of tests was supported at the curriculum organization level, but not at the instructional characteristics level. Similarly, the hypothesis relating to the average number of courses, while supported at the instructional level, was not supported at the curriculum organization level. The researcher argues that these two particular characteristics are strongly linked, having a correlation of -0.80 in the correlation matrix. Bell (2010) indicates that if the correlation coefficient is not calculated only inferences may be made, rather than direct causal relationships. However, this indicates a multicollinearity problem, which is acknowledged by the researcher. Farrer and Glauber (1967:93) consider multicollinearity as a threat in regression analysis since regression is “to estimate the parameters of a dependency, not an interdependency, relationship.” The very high correlation coefficient of -0.80 could indicate that the observed data lacks “information content” which would have a deleterious effect on the parameter estimates (Farrer & Glauber, 1967:93).

Although the hypothesis relating to the number of practice opportunities was upheld by the data, the researcher expected an increase in the number of tutorials to have a positive effect on study progress. However, the opposite was the case. It is suggested that this was due to the tutorials not being as
active as was perhaps possible. Had they been so, students may well have experienced a positive effect on their study progress. Consequently, the content and delivery of the tutorials is a confounding variable since it has an effect on both the cause (independent variable) and the effect (dependent variable), completely reversing the original hypothesis. Pearl (1998:3) indicates that with associational criteria, such as with associative hypotheses, there will be no confounding if the independent and dependent variables are not “affected by” an external variable. This would, however, involve a level of judgement on the part of the researcher and could well challenge the validity of the study.

1.6 Conclusions

Had the researcher designed the study around a null hypothesis and measured the effect size, this would have provided more information regarding the extent to which the hypotheses were upheld, or otherwise. This, and the issues of multicollinearity and confounding affect the study’s external validity. The researcher, therefore, can only make a limited generalization by indicating that fewer parallel courses, spreading of tests and fewer test periods “can have a positive effect on the academic progress of students” (Jansen, 2004:429). Consequently, the study is limited in its usefulness to its field, prompting the researcher to recommend further directions for future research.
2. **ARTICLE 2 – A CRITICAL STUDY**

In the following sections, I will discuss and critique a study by Rossi et al. (2009) (see Appendix 2) concerning a Critical Discourse Analysis (CDA) of physical education curriculum materials in Queensland, Australia. This article was chosen due to my interest in curriculum and the application of CDA to curriculum materials in my own context.

2.1 **Paradigm discussion**

This study falls within the critical theory paradigm. According to Guba and Lincoln (1994) critical theory must aim to critique and transform, thus having an emancipatory effect. The researchers are undertaking a CDA of the State of Queensland’s Health and Physical Education curriculum and questioning its “*ethic of emancipatory politics*” (Rossi et al., 2009:76). Consequently, conducting a CDA reflects the critical nature of this study as the researchers are questioning whether the curriculum materials are as true to the principles of social justice they claim to be. The analysis of language as it relates to society is also consistent with a social constructionist epistemology, with the transformation of sedimented layers of constructed meaning representative of an historical realist ontology. The researchers are not undertaking this study value-free, instead adopting a value-mediated stance where they are potentially influencing the study (Guba and Lincoln, 1994). Willis (2007) further supports this by suggesting that the selection of
a critical research topic through to methods is not a value-free activity as it is constantly influenced by the researcher's beliefs.

2.2 Topic and methodology

This study is conducting a CDA on curriculum materials produced by the State of Queensland for Health and Physical Education (HPE) for years 1-10. The researchers borrowed and adapted Fairclough's analytical framework (Rossi et al., 2009). As the framework was too large for this particular analysis, it was adapted to suit the study's specific circumstances. Two main sections of the HPE curriculum were analyzed. The researchers chose the Rationale and Outcomes statements, as they comprised the greatest proportion of the overall text. Furthermore, Van Dijk in Rossi et al. (2009) states that conducting a full CDA of a text is not possible, a limitation that has been taken into consideration by the researchers. Rather than select a research question, the researchers incorporated a social problem into their framework. This was to ensure the analysis remained critical.

2.3 Analysis

The Rationale and Outcomes sections were subject to a linguistic analysis, consistent with the textual level of Fairclough's framework (Rogers et al., 2005). Regarding the linguistic analysis, the researchers focused on the processes (verbs), as they were interested in the mood and modality of the
statements based on whether transitive or intransitive verbs were used. The mood of a text has a direct impact on modality, the beliefs and attitudes people attach to texts (Eggins, 2004). According to Rogers et al. (2005) the analysis of transitivity and mood relates to the ideational and interpersonal domains of systemic functional linguistics.

The Outcomes section was further subject to a macro level analysis with ideology and hegemony as the analytical frames, this representing the sociocultural level of Fairclough’s framework (Rogers et al., 2005). Additionally, the researchers examined text production and text consumption, which is consistent with the discursive practices level of Fairclough’s framework (Rogers et al., 2005).

2.4 Critique

Fairclough (2010a) indicates that CDA is often transdisciplinary in nature, being integrated into other frameworks of study. This is the case with this particular study since the CDA forms part of a wider study on teacher identity and curriculum reform, funded by the Australian Research Council. The CDA is being used to determine teachers’ emotional reactions to socially critical aspects of the curriculum materials. As the CDA is part of a larger study, whether it provides the “detailed analysis” expected of Rossi et al. (2009:76) or if it is “lacking in close textual analysis” due to it being more closely
associated with Foucaultian post-structural discourse analysis (Rogers et al., 2005:376) remains to be determined.

According to Guba and Lincoln (1994) methodologies associated with critical theory should be dialogic and dialectical. They believe the methodological process should be transformative, removing “ignorance and misapprehensions” and move towards a “more informed consciousness” (Guba & Lincoln, 1994:110). The researchers describe the “dialectic process” (Rossi et al., 2009:80) of their project, referring to the individual CDA analyses that are subsequently discussed openly within their project team meetings. This can result in the reformulation of these analyses based on the consent of the project team. However, this is not necessarily the dialectic nature promoted by Guba and Lincoln (1994), being more akin to an expression of ideas and opinions within the project team than a radically transformative dialogue.

The CDA adopted by the researchers was based on Fairclough’s analytical framework, which is related to Bhaksar’s concept of “explanatory critique” (Rossi et al., 2009:80). Fairclough (2010b) outlines a dialectical-relational approach to CDA, which resonates strongly with Guba and Lincoln’s concept of a dialectical methodological approach (Guba & Lincoln, 1994). For Fairclough (2010b), the initial aspect of the approach’s methodology is to focus on a social wrong which the researchers have included in their framework. Fairclough (2010b) further proposes that the dialectical-relational framework identifies any barriers to combating the social wrong.
The findings presented by the researchers point towards inequalities of economic disadvantage and the marginalization of certain groups by the curriculum materials, and that the curriculum does not embrace the diverse nature of children and life. However, the issue of the “double hermeneutic” (Giddens, 1987:18) is apparent here since the researchers cannot guarantee that readers will interpret and understand the curriculum materials in the same way. Indeed, the double hermeneutic issue could be perpetuated in the wider study. In their study of the Discovering Democracy curriculum materials in Australia, Criddle et al. (2004:33) remark that policy makers through to teachers “had different views of the intentions of the curriculum package.” Policy makers often expect curriculum materials to be adopted as given, exhibiting a need “to control teaching at the micro level of the classroom” (Criddle et al., 2004:35). However, participants may well be “actively interpreting the policy to suit their own needs” (Criddle et al., 2004:33).

According to Johnston (1999), both teaching and teaching methods are ideological by nature. By asking teachers to comment on socially critical issues arising from the curriculum materials, one dominant discourse (the curriculum) is potentially being confronted by another (the teachers). Rather than transform and emancipate, this could perpetuate the issues. This resonates with the “crisis of legitimacy” (Rapley, 2008:128) in that the positivist notions of validity and reliability are simply not relevant for CDA and the mediated values that surround it. Rapley (2008) indicates that
credibility and plausibility are more appropriate, although that would continue to remain a matter of interpretation.

2.5 Conclusion

While the researchers question the transformative power of the curriculum materials, the transdisciplinary nature of the study makes it difficult, at this point, to see how the researchers’ study will effect transformation and emancipation. It is more likely that the CDA is being used to problematize issues for discussion as part of the wider study. However, this could see two dominant discourses emerge in direct opposition. Therefore, while the researchers provide findings that question the curriculum’s transformative intentions, whether those findings provide a “stimulus to action” (Guba & Lincoln, 1994:114) would need to be determined through examining the wider study of which the CDA forms part. Nevertheless, the use of a CDA framework to examine physical education curriculum materials could, I believe, be usefully adapted and applied to the EFL curriculum and materials developed in my context.
REFERENCES


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APPENDIX 1

Article 1


APPENDIX 2

Article 2