Exploring ‘convergence’ within the research process:

What informs interpretation?

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Interpretation is a fundamental yet frequently taken-for-granted process within qualitative research. In an era of increasing change and choice, how do we, as beginning educational researchers, interpret our data and what guides our interpretation? This paper seeks to explore and make explicit the often implicit process of interpretation. The idea of ‘convergence’, or a convergent space within the research process, provides a meeting point between the abstract and often intimidating notion of theory, to the ever-present realities of data analysis.

In order to illustrate the idea of a convergent space, we propose a conceptual model that uncovers the relationship between researcher, theory, and participants and data in the interpretive process. Specifically we examine the relationship between constructivist theory and data analysis through a practical discussion of the interpretive process as experienced by two beginning educational researchers in school based research projects.

STATEMENT OF PURPOSE

The incentive for writing this paper lies in the struggles that we have encountered, as beginning educational researchers, whilst we have attempted to interpret our data. Writing this paper has been an interpretive enterprise in itself as we have tried to collaboratively bring meaning to the act of interpretation. This will continue to be an ongoing conversation for all researchers and the historically situated theorists and theories that researchers are exposed to. We consciously conceive of interpretation as both an active and often implicit process, as we will discuss in later paragraphs. In order to more clearly understand the interpretive process, we must make explicit those factors that might shape interpretation. Thus, a fundamental question we address is what can inform interpretation? Much like the act of interpretation, addressing this question has been fraught with indecision and debate. However, the process of writing has illuminated what we believe to be a framework that can assist researchers in their interpretive work.
INTRODUCTION

Qualitative research has been variously described as ‘inquiry-based’, ‘generative’, ‘inductive’ and ‘inherently interpretive’ (see for example, Denzin & Lincoln, 1994). The outcomes of qualitative research can be, according to Peshkin (1993), broadly classified as description, interpretation, verification and evaluation; however, these are not mutually exclusive. The research product or written text constitutes one of many possible interpretations of a particular phenomenon, which is in turn re-interpreted by the reader. Interpretation therefore plays an integral role in both the process of doing good qualitative research and in the generation of rich, contextualised outcomes, or what Geertz (1973) calls the construction of a ‘thick description’.

Crotty (1998) argues that the research process rests on our choice of methods and the methodology governing those choices, the theoretical perspectives that are embedded within our methodology, and the epistemology informing our theoretical perspective. One’s own epistemology, which deals with the nature of knowledge and how we view and consider knowledge, necessarily influences our way of looking at the world. Consequently, “different ways of viewing the world shape different ways of researching it” (Crotty, 1998, p70). The construction of a thickly contextualised story then, requires that we both locate our research process within the historically situated theoretical and methodological milieu, and that we also locate ourselves and our culturally constituted assumptions and theoretical leanings within this process.

Within qualitative research, there is a burgeoning field of instructive or ‘how to’ research texts [2]. These texts endeavour to inform the beginning qualitative researcher of theoretical and methodological considerations, and of data collection and analytic techniques. Whilst authors such as Denzin acknowledge that “interpretation is an art; it is not formulaic or mechanical” (1998, p317), the role of interpretation within qualitative research and the role of the researcher within this ‘interpretive enterprise’ (Denzin & Lincoln, 1998a) still remain unclear. Specifically, there exists little explicit advice on how it is that we actually engage with the ‘interpretive enterprise’. Accordingly, this paper attempts to practically define what interpretation is and how we might navigate this interpretive terrain.

We view interpretation as a convergent space within the research process, where the researcher, theory, participants, and data come together. We also subscribe to the belief that interpretation is innately theory driven, in that theory, in our case constructivism, both informs and is informed by the interpretive process. For example, we assume that different people construct ‘reality’ in different ways and therefore “strikingly diverse understandings can be formed of the same phenomenon” (Crotty, 1998, p47). Hence, our worldviews or the ways in which we see the ‘real world’ can be considerably disparate. These worldviews are in effect interpretive lenses, through which we both see the world in a meaningful way and through which interpretation is both constructed and re-constructed.
In order to illustrate the idea of this convergent space, we propose a conceptual model that examines the relationship between informants that might exist within the interpretive process. In doing so, we also make explicit the characteristics and nature of the interpretive lens. Rather than offering prescriptive solutions to what are difficult issues, we hope to present a practical and user-friendly resource for researchers working their way through this often unclear and theory-laden landscape.

**INTERPRETATION – HOW DO WE AS BEGINNING RESEARCHERS ENGAGE IN THE INTERPRETIVE ENTERPRISE?**

**What is interpretation and what is the ‘interpretive enterprise’?**

What is interpretation? The interpretivist approach has appeared in many guises, most notably in hermeneutics (Crotty, 1998). Hermeneutics derives from the Greek word ‘hermeneuμ’ which means to interpret, understand, or explain (Bos & Tarnai, 1999, p660). From a modern hermeneutic perspective, interpretation involves a consideration of texts, which we define as written, spoken and non-verbal, as being problematic – that is, their meaning is not always obvious or known. Classically in hermeneutics, it was the affinity between text and reader that interpretation emerged, wherein a text or a language became a way of transmitting possible meaning (Crotty, 1998).

For researchers, the meanings that they can derive from texts or language sometimes appear to be unclear or unfamiliar to them, because these emerging ideas are framed in a language or context that cross the boundary of familiarity and comprehension. Jackson (1993) and O’Loughlin (2000) speak of feelings of ‘restlessness’ and reticence on the part of the researcher to engage with conflict and to attempt to uncover the sometimes elusive meanings of texts. According to Jackson (1993), the spirit of research is found in this sense-making. For us then, the act of accommodating new or different meanings is interpretation. From a practical point of view, we as researchers participate in this sense-making as it is through interpretation that things, which aren’t obvious, literal, intended, or recognised, may become recognised.

Clarke (1999) demonstrated a practical example of this when she found that writing a narrative summarising her participants and their interview data facilitated her own understanding; this process actually became a crucial step in her interpretation of the data. Specifically, her narrative attempted to present a holistic text, through an elaboration of the parts that make up this text. This is an example of interpretation within modern hermeneutics: how the past (the subject’s own story) is brought together with the present (the researcher’s representation of that story) to form interpretation. This exemplifies an approach to understanding and interpretation that is “less to do with grasping a content ... [and] more to do with engaging in a dialogue with that which is to be understood – [specifically] that which makes a claim on us” (Schwandt, 1999, p455).
Interpretation is therefore a fundamental element within the broader process of conducting qualitative research given that qualitative researchers “study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings that people bring to them” (Denzin & Lincoln, 1998a, p3, emphasis added). Interpretation is the complex and multifarious process of making sense of what has been learned from the field; as Denzin (1998) indicates, it is a process of moving from the field to the text to the reader. As such, interpretation is a foundational aspect of conceptualising, conducting, coalescing and communicating research. Frequently, the term interpretation is discussed in contrast to its seemingly lesser relative – description. Similarly, the aim of interpretation is often seen as the development of understanding rather than ‘mere’ description. Instead, interpretation is a multi-layered and cumulative process of which both description and explanation are important components.

What shapes our interpretation? Our methodological reasoning and our theoretical stance speak to us about the ways in which we undertake research and “it speaks to us about the ways in which we view its data” (Crotty, 1998, p65). Consequently, as researchers we construct ‘readings’ or interpretations of a particular situation, environment, or phenomenon. These readings are as Gergen suggests, guided by our own worldviews and the worldviews of those participating in our study (cited in Denzin & Lincoln, 1998a). The ways in which both researcher and participant view the world may vary considerably. Such views are shaped by the theoretical, socio-political, economic and historical contexts of the researcher and participants. Thus, our beliefs, values and experiences frame the ways in which we perceive and conceptualise the world, the meanings we construct in our lives, and the ways in which we communicate these meanings to others. Interpretation seeks to make claims about knowledge, where knowledge is seen to be continually constructed and re-constructed in social settings. As Shwandt (1999) argues, in qualitative research, and in life in general, “we are always engaged in trying to ‘make something of that’; we are always about the business of construing the meaning of something” (p452). Accordingly, there can never be only one valid or true interpretation.

Measor and Woods (1991) recognise that research is a social activity. Furthermore, our views of the world “take place within shared systems of intelligibility – usually a spoken or written language” (Gergen, cited in Schwandt 1998, p243). Interpretation is thus a communicative activity that is founded upon building shared meanings. As educational researchers, we attempt to work out shared systems of language through continual theorising and analysis. Part of this analysis involves working out whether researcher and participant are talking about the same thing (for example, when we talk about ‘educational practice’ (Longhran, 1999)). Schwandt argues:

to prepare an interpretation is therefore to construct a reading of those meanings [that people assign to things]; it is to offer the inquirer’s construction of the constructions of the actors one studies (1998, p221).
Hence, interpretation occurs as a result of interaction between researcher, theory, participants, and data in order to distil a mutual construction. The interpretive enterprise is therefore a complex, multi-layered undertaking. It is an ongoing system of construction and reconstruction in an attempt to clarify, elaborate, provide insight and develop a deeper understanding of the phenomenon at hand. The interpretive enterprise has neither a starting point nor an end point, as our interpretive lens exists both before and after a particular research endeavour.

Thus, within the interpretive enterprise, there is a dynamic sense of forming and reforming meaning, or a negotiation of meaning between researcher, participant, and reader. Whilst we do acknowledge the dynamic nature of this endeavour, the pragmatic aspects of the research process mean that for most researchers, there is an end-point for any particular research project. The sheer exigencies of doing research, that is, the mental, physical and practical constraints, necessitate an end point to the interpretive process, usually in the form of a written text. Having said this however, the interpretive process continues beyond the production of a research text as we believe each reader re-interprets and brings new meaning to a text. We would also hope that this enterprise leads to the generation of purposeful and practical outcomes for those we study, as well as ourselves. What roles then, do we as researchers play in this process and what are some of the difficulties we might encounter whilst engaging in the interpretive enterprise? This necessarily requires a further examination of the elements that inform interpretation.

**What informs the interpretive enterprise?**

In light of our views on hermeneutics and interpretation, we argue that there are four key informants to the process of interpretation – the researcher, theory, participants, and data. In doing so we also acknowledge that these informants are not mutually exclusive. Rather it is the interaction or relationship between these informants that drives the interpretive enterprise. Different people, however, view these informants in very different ways, resulting in different outcomes or interpretations. Goodman’s suggestion that we have “frames of interpretation” (as cited in Schwandt, 1998, p 238) is useful in further explicating this variance. We adopt this perspective in arguing that these frames of interpretation, or the worldview for any researcher, necessarily inform the interpretive enterprise. For ease of explanation we refer to these frames of interpretation as an interpretive lens [3]. This interpretive lens is both shaped by and in itself shapes, our views of these four key informants and the ways in which they inter-relate. What might this lens look like and what role does it play within the interpretive enterprise? These questions are best explored through the notion of a convergent space.

**THE CONVERGENT SPACE – WHAT IS IT AND WHY IS IT IMPORTANT?**

The convergent space is the meeting place or intersection of the four informants to interpretation. It is not so much a location, but rather a concept within which we as educational researchers, our theory, and our participants and subsequent data,
collaboratively construct an interpretation. The idea of a convergent space allows us to explore both the characteristics and nature of the key informants to the interpretive process and the interpretive lens through which we construct an interpretation. Our model clearly highlights the intersection of theory, researcher, participants, and data. Data and participants are represented within the same circle in our model as we find it difficult to conceptually separate the two – as will be discussed later. The model also acknowledges the crucial role of our interpretive lens in the process of interpretation. It provides a visual representation of the interpretive process and the informants to this process as shown in Figure 1 below. The model therefore serves as a prompt for researchers to consider the dynamic interplay of what we think are key informants to the interpretive enterprise.

Figure 1 The convergence model – key informants within the interpretive enterprise
As indicated in Figure 1, the shaded area represents the convergent space, which is viewed through an interpretive lens. It is possible that the model may lend itself to questions of priority between the four identified informants. For example, in terms of theory and the researcher, a possible question might be, ‘does theory guide the researcher or does the researcher guide the theory, in an attempt to make it appropriate for him/herself?’ Each researcher will dictate the relative importance and priority of these informants in a particular research project. The interaction and relationships that play out between these informants during a research study is, however, paramount. It is the responsibility of the researcher to therefore pay attention to this interplay and gain an understanding of how each informant co-exists within the interpretive. In the following paragraphs, we elaborate upon this model, specifically examining each component and the relationships that exist between them.

THE RESEARCHER

As beginning qualitative researchers, we have come to understand that we do not, and cannot, remove ourselves from what we are studying. The researcher cannot and should not, according to Guba and Lincoln, “be neatly disentangled from the observed in the activity of inquiring into constructions” (as cited in Schwandt 1998, p243). Part of locating ourselves within our research is making explicit the personal, professional, and socio-political contexts within which we are immersed.

Identifying one’s self in qualitative research is a well canvassed dilemma within the literature, and one that Denzin & Lincoln discuss at length in what they call the ‘crisis of representation’ (1998a). This crisis has emerged amidst much broader philosophical, epistemological and methodological debate over the nature and purposes of social research (Stronach & MacLure, 1997). Geertz (1988) has referred to these debates as the blurring of research genres; he argues that this blurring has lead to an increased awareness of the role of the self in social research. Jackson (1993) similarly acknowledges the role of self, particularly in the often unintended messages we send to those who read and interpret our work. In this light, he suggests that we actively seek to:

understand what meanings may be extracted from what we have done, what interpretations are placed upon it, [and] whether we intended them or not. Hence the value of thinking about unintended messages [and the role of self in these messages] (1993, p8).

Interpretation is informed by our vision of self, our vision of participants and our relation to them, as well as our vision of research and the contexts within which our research is nested. Interpretation is a joint construction between and amongst both researcher and participant. It is achieved through communicative means and as Longhnan (1999) suggests, we must find a common or mutually accessible ‘language’ between both researchers and researched. As such, we must be careful not to overlay our own interpretation over that of participants, and in doing so, simply inscribe the researched.
Our most important consideration is therefore to interpret the meanings research participants communicate to us with fidelity and authenticity. This requires making explicit our assumptions and theoretical leanings. In the following section, we overview constructivism, and discuss the role of this theory within our own interpretive enterprise.

**THEORY: EXPLORING CONSTRUCTIVISM**

Wolcott (1992) suggests an analogy of a theory marketplace in which researchers, as ‘smart shoppers’, shop for a theory that best suit their research and epistemological needs. In our case, we found elements of constructivism compatible with our needs. In the following paragraphs, we overview this theory and discuss the role it plays in shaping our interpretive lens.

Constructivism is one of the four major qualitative traditions that organise and structure qualitative writing (Denzin, 1998, Guba & Lincoln, 1998). Despite this position and acceptance within qualitative research, “the terrain of constructivist approaches is marked by multiple uses of the term” (Schwandt, 1998, p237).

In our understanding, constructivism has a relativist orientation, in that no single ‘reality’ or worldview exists; rather, there are multiple realities or worldviews, which are continually constructed, refined, and reconstructed. To make sense of new experiences, new information, and/or new situations, concepts are ‘invented’ to facilitate understanding; these concepts, or constructions, are dynamic and are modified in the face of subsequent experiences (Shwandt, 1998; Guba & Lincoln, 1998). Theory in effect needs to be consistent with experienced reality. Thus, there is an ever-changing and evolving notion of ‘reality’, based on both the continual experiences of an individual ‘social actor’ and the interactions that exist between two or more actors (for example, the researcher and research participants).

From an educational research perspective, a study that embraces a constructivist approach explicitly relates both the researcher and the participant, given the constructivist assertion that “the investigator and the object of investigation are assumed to be interactively linked so that the ‘findings’ are literally created as the investigation proceeds” (Guba & Lincoln, 1998, p207). Here, we understand ‘findings’ to be representative of both the researchers and participant’s own reality. Given the notion of multiple realities and emergent understanding, a construction is therefore continually evolving, developing, and re-developing throughout the interpretive enterprise. A constructivist approach attempts to understand “the complex world of lived experience from the point of view of those who live it” (Schwandt 1998, p230). Constructivism therefore assumes a dynamic, multifarious, and sometimes conflicting ‘social reality’ that can change as “constructors become more informed and sophisticated” (Guba and Lincoln, 1998, p208).

These sometimes conflicting versions of reality, at both an individual and collective level, are a key component of constructivism. This convergence is therefore a conceptual space within which theory, knowledge, and individual and competing constructions
come together. Part of the interpretive enterprise is the merging of these constructions, or versions of reality, which are either competing with, or complementary to, each other. The aim of this merging is therefore both "understanding and reconstruction" (Guba and Lincoln, 1998, p210). As constructivism embraces an emergent understanding, the researchers own constructions are in themselves reconstructed throughout the interpretive enterprise (Guba and Lincoln, 1998). Hence, our interpretive lens, a construct itself, is also ever-evolving and emerging, allowing for how we view things, as well as our viewing lens, to be constantly changing, re-developing, and reconstructing.

Our research sought to address what it was like for teachers to experience a particular moment in time, in the context of educational policy change. We found that constructivism gave us a language to frame our perception of these experiences within those perceptions offered by the teachers we were studying.

PARTICIPANTS AND DATA

The role of participants and data within the interpretive process is an integral one. It is difficult to conceptually separate and discuss participants and the data they, in partnership with the researcher, jointly construct as individual components of the interpretive process. Data represents part, but not all, of a participant’s construction. As hermeneutics suggests, the intention of an author, assumed to be implicit within a text, may be construed or interpreted differently than his or her original intention: as such, we can never get the full ‘story’ of a participant. We can only create an interpretation that is based on what we as researchers and participants have constructed, for example through observations and interviews. Therefore, without participants and the data they help to construct, there would be no interpretation of constructions outside of the researcher’s individual construction. Data is therefore equally important as theory and researcher within the interpretive enterprise, as is indicated in Figure 1. Data however does enable the interpretive lens to take on a more practical application, through the analysis of data. We do not wish to directly equate interpretation with analysis. Rather, analysis is a crucial part of the interpretive process as it allows us to theorise our data. Merriam (1998) suggests that analysis is:

the process of making sense out of the data. And making sense out of the data involves consolidating, reducing, and interpreting what people have said and what the researcher has seen and read – it’s the process of making meaning (p178, emphasis added).

As data and analysis cannot be understood apart from the theory framing it, we cannot then discuss the purpose and process of data analysis as separate from our constructivist orientation. The aims of analysis are therefore to uncover known constructions, and to discover implicit or unknown constructions, as the researcher and participant develop a deeper understanding about a particular phenomena. Constructions as elements of our world view are in a state of continual development, change, and reconstruction
throughout the interpretive enterprise, and throughout the course of any research.

How then do we come to understand and recognise when a reconstruction is emerging, or, when a construction is changing? One method to encourage this involves moving through different levels of analysis, as articulated by Merriam (1998) and others (for example, Corbin & Strauss, 1990). These levels of analysis progress from a descriptive, chronological account of the data, to classification or naming of similar text or observable situations, to “making inferences, developing models or generating theory” (Merriam, 1998, p187). Young (1999) explains that it is within these levels of analysis that the researcher comes to understand what he calls, first, second and third order constructs. Through analysis, the researcher and participants, as dual analysts, uncover known constructs (make explicit what is known), discover assumed constructs (investigate the taken-for-granted) and together invent new constructs to develop a better understanding of the phenomenon under investigation. It is this process of collapsing and distillation of qualitative data that allows for what Miles calls “unforeseen theoretical leaps” to occur (1983, p117).

Analysis is an ongoing process that allows the research to be focused and re-focused as it occurs. It is a process of meaning making, and according to Longhrian (1999), “making meaning should be purposeful” (p52). An integral part of analysis is therefore the reflection on, and explication of, one’s purpose. A number of questions are inherent in this, namely:

1. How does this purpose reflect our theoretical orientation?
2. What does it reveal about our role as a researcher?
3. What role do participants play in this process and why?

These are questions that should guide all researchers. A further consideration is, as Longhrian (1999) suggests, an acknowledgement of the specificity of your research project. In talking about ‘usable research’ for teachers, Longhrian warns against “taking a set of rich practices, developing frames that are useful for making sense of that practice and then using these frames as an advance organizer for advice to a wider audience” (p52). In doing so, Longhrian, perhaps inadvertently, highlights the nature of the interpretive enterprise – that is that there is no one universal truth or reality – only the construction of a version of reality that may not hold true for everyone.

**RESEARCH DILEMMAS: EXAMPLES FROM THE FIELD**

The Convergence model is not a tool that solves all research dilemmas. Rather, it is a model that allows researchers to think through some of the dilemmas inherent to educational research as they arise. Below, we outline two dilemmas we encountered and discuss how the Convergence Model allowed us to navigate them.
Simon's dilemma – theory and data

In my research, the applicability of a theory of teacher knowledge was investigated in the context of subject matter change. Throughout 1999, the subject of History was undergoing change in New South Wales. These changes included the incorporation of civics and citizenship education into a revised junior History syllabus. The changes occurred amid uncertainty regarding teacher preparedness, willingness and ability to teach this new subject matter. It was assumed that pedagogical content knowledge (PCK), the theory of teacher knowledge, would carry teachers through this period of change, since other research had reported similar findings (e.g., Sanders, Borko & Lockard, 1993). However, it became apparent that this assumption was too causal, and actually undermined the goals of the research, which sought to investigate the nature of teachers’ experiences in an altered subject matter context.

These limitations became evident when I reconsidered the aims of the research. I realised that I had not adequately considered each teacher’s responses, beyond the confines of the theory’s potential applicability. In this oversight, sufficient attention was not paid to the professional and personal context of each teacher, and a consideration of how the theory might relate to their experiences – in both a positive and negative light.

In subsequent analysis, I focused more on the teacher’s experiences, what they reported in interviews, and what I observed in the classroom. Rather than overlay the theory on these experiences, I adopted a more grounded approach, drawing first on the data themselves, and then contrasting emerging findings to the theory. This allowed an account, first and foremost, of teachers’ experiences, with the examination of the applicability of PCK as a secondary discussion.

Catherine’s dilemma – researcher and participants

As a secondary school history teacher studying history teachers’ perceptions of syllabus change, I strongly identified with my research participants. This identification developed into a belief that as a researcher, I was ‘one of them’ and that I therefore had an insider perspective on teachers’ perceptions of syllabus change. My membership in the History Teachers’ Association [HTA] and the HTA’s vigorous opposition to the syllabus development process and the content knowledge contained within it, gave me an inherent bias and shaped the questions I asked of participants and those questions I chose not to ask. It took some months before I realised that whilst I viewed myself as an insider, my participants viewed me very differently. This realisation was a fracturing experience. I explored this issue through subsequent interviews and discovered that some participants viewed me very much as an outsider whilst others saw me as a potential sympathiser. I had not thought to ask participants how they viewed me until part way through my research. In hindsight, this should have been explicitly addressed in the data collection process. It was only when this was revealed that the focus of my research was able to shift from me to that of my research participants.
In this instance, the ‘crisis of representation’ is demonstrated. This is important as it could have lead to the production of only one voice - that of the researcher. I could have skewed my data by focusing only on those issues that I thought were consequential, not those identified by study participants. The convergence model reminds researchers that their role in the research process is a nested one, it is a co-dependent role and the focus of research must not be on the researcher.

CONCLUSION

Our intention in this paper has been to both explore and communicate our understanding of the interpretive enterprise as beginning researchers. As such, the process of writing this paper has been a reflexive exercise, and one that we believe to be critical to our understanding of interpretation. The articulation of the interpretive process and the explication of the informants to this process are pivotal to the educational research endeavour. Further, the notion of a ‘convergent space’ provides the reader with a clear visual representation of what is a complex and multi-layered interpretive process highlighting the conceptual space within which interpretation occurs. As a result, the idea of convergence allows the researcher to more clearly and confidently navigate the interpretive terrain. We are not suggesting that the convergent space provides a simple solution to the complexities of the conceptual, ethical and interpretive dilemmas that plague researchers throughout their study. Rather, we see it as a starting point from which researchers can become more aware of the role and dynamic relationship between researcher, theory, participants, and data, within the interpretive enterprise.

NOTES

1. This paper represents the collaborative effort of both authors.


3. We acknowledge Crotty’s (1998) use of the term lens in his discussion of social constructionism.

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