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## Recommended Citation

Conway, Ann (2009) Giving adult learners a voice after the inquest: A review of a mixed method approach to educational research. Working paper submitted to the EDD at the University of Sheffield.

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# Giving adult learners a voice after the inquest: A review of a mixed method approach to educational research

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## Introduction

All academic researchers and practitioners need up to date information on programs, policies and peoples to help them decide what to do. Information sources vary according to the research problem or issue in the academy or market and a researcher's choice of a particular experimental design is contingent on availability of time, resources, subjects and other practical constraints such as access.

Various qualitative methods are available to the researcher to assess the learning process, experience and adult learner motives for learning (see for example Light and Cox, 2001; O'Flanagan, 2005; Yin, 1993; Greene and Caracelli, 1997; Chatterji, 2005; West et al 2007; West et al 2001). These qualitative approaches provide rich resources for gathering information but as researchers in education must not dismiss other methods of research within academia, that of a quantitative nature. Quantitative methods, formerly referred to as 'statistics' or 'tests' by those shying away from their use, can provide a contextual basis upon which to draw further information through later qualitative research and therefore freeing up time to understand and explore phenomena, pragmatically or otherwise.

Good educational research should therefore occur not only with rigorous application of appropriate research methods, whether qualitative or quantitative as the danger in using only one paradigm would be potential corruption or trivialisation (Day et al 2008: 330) of the research. In mixed methods research both quantitative and qualitative research are important and useful and mixed methods draws from the strengths and minimizes the weaknesses of both in single research studies and across studies (Johnson and Onwuegbuzie, 2004: 14-15; MacKenzie and Knipe, 2006: 194). Mixed methods 'integrate' and 'synergise' (Day et al 2008: 332) research to provide a holistic understanding of the 'problem' at hand which fundamentally becomes the driving force of the research and not the method, paradigm or theoretical framework.

An example of early use of mixed methods in research was used by the Chicago School of the 1920's (following Dewey's (1859-1952) philosophy grounded in pragmatism). They used biographical approaches through both quantitative and qualitative data (mixed methods) and

preferred case studies via participant observation (West et al 2007: 28) to view the actions of members of society as performed by them as 'actors' rather than if they were done by something called the system itself. They focused on the development of the individual through the understanding of the wider environment and that the society is created in, through and from interactions of members of the society. (See also works by Mead (1863-1931) at www.pragmatism.org/geneology/chicago.htm ). This is generally accepted by biographical and life history researchers (West et al, 2007: 29). West et al (2007: 48) argues for a richer use of methodologies through using a mixed-method approach to gaining data for biographies.

This paper highlights the necessary application of mixed methods in educational research within the field of adult learners and lifelong learning in higher education to provide adult learners with a "voice". The paper will introduce the reader to educational research through focusing on mixed methods and the theoretical frameworks within. Critical hermeneutic epistemology or transformative research (as espoused by Freire and Habermas in critical realism cited in Morrow and Torres, (2002)), social constructivism within phenomenology (see Vygotsky's (1934) and Bruner (1996) work cited in Carlile and Jordan, 2005: 21-22) and pragmatism within the critical realism school (The Chicago School of biographical studies were grounded in pragmatism (West et al, 2007)) will be reviewed as examples of methodologies in the theoretical frameworks within mixed methods. This will then introduce the reader to some types of research methods used within mixed methods such as case study interviews, life histories and biographical studies.

Finally the paper will propose that the purpose of using a mixed method approach using case studies and biographies is to provide the adult learner with a "voice".

**Mixed Methods in Educational Research**

> *Research involves systematic, controlled, valid and rigorous establishment of associations and causation that permit the accurate prediction of outcomes under a given set of conditions.* (Kumar, 1996; 16)

It should ultimately improve our understandings of problems at hand, (Kumar et al, 1999; p.5) and communicate the findings to a target group or society. Research within education is aimed at improving learning and teaching through informed judgments via critical enquiry (Bassey, 1999). This, Johnson (1994) suggests, should be structured and systematic and beyond generally available knowledge, but should also be able to arrive at conclusions and/ or recommendations.

White (2000; 20) suggests that when conducting research the selection of an appropriate methodology, which can be quantitative (measuring and representing information in a statistical format) or qualitative in nature (which deals with understanding rather than measuring) (Kotler, 1991), the choice of suitable methods and the theoretical framework are of paramount importance but there is no single blueprint for planning research as it is governed by the notion of a *'fitness for purpose'* (Cohen et al, 2001). It is this *fitness for purpose* and combination of methodologies (quantitative and qualitative) which draws us to mixed methods in research.

Fox et al (2007: 21-23) outlines mixed methods in research as different methods employed when practitioners are faced with a variety of answers to a research question. A mix of qualitative and quantitative methods can be used to compliment (combining methods to obtain a fuller picture of a construct), cross validate (using more than one method to obtain a fuller picture of a program or problem) and/ or triangulate (establishing construct validity through convergence in findings through multiple studies) in search of the solution(s) to the research problem (Greene and Caracelli (1997 cited in Chaterrji, 2005: 18)).

This use of qualitative and quantitative methods is often expressed in terms of differing paradigms, (Groger and Straker, 2002: 181) when it is not a choice of 'neither' 'or' but should be viewed as a choice of multiple methods and fit for purpose. As the theoretical framework, sometimes referred to as a paradigm, (Mertens, 2005: 2), is the keystone to the research and directs what methodology and methods to employ this will be reviewed next.

**Theoretical framework – A conflict of paradigms in mixed methods?**

Paradigms are models or intellectual frameworks with which researchers can affiliate their research with (Hussey and Hussey, 2003). There are three basic research frameworks: ontology which is the nature of reality; epistemology, that is how the world is known and the relationship between the enquirer and what can be known; and methodology the means by which knowledge is gained about the world (Crotty, 1998; Creswell, 2003).

Within the social sciences, three main research philosophies have been identified that appear to differentiate themselves primarily on the basis of their position on what constitutes acceptable knowledge (Blaikie, 2007) which are known as positivism (and post-positivism), the premise that the world exists externally and can be measured via objectivism, however varied; phenomenology (interpretative/ constructivism), which suggests that reality is socially constructed rather than objectively; and critical realism (mixed methods), is that reality exists independent of social

actors but that it is socially constructed. These philosophies are considered to have dependent research paradigms.

O'Leary (2004), Creswell (2003), Marsh and Furlong (2002), Easton (2002) and Riley and Love's (2001) perspectives on the paradigms and their philosophies are further consolidated in the following table.

**Table 1: Summary position of research paradigms and their underlying philosophy**

| | **Paradigm** | **Ontology** | **Epistemology** | **Methodology** |
|---|---|---|---|---|
| **Philosophy** | **Positivism**<br><br>(and post-positivism) | Realism: truth exists and can be identified and discovered however varied in their reality | Objectivism: unbiased observer | Hypothesis testing; quantification; controlled tests |
| | **Phenomenology**<br><br>(interpretative/ constructivism) | Truth shaped by social processes (feminism, ethnic, neo-Marxist | Subjectivism: Values influence enquiry | Interactive processes that seeks to challenge commonly held notions |
| | **Critical Realism**<br><br>**(using Mixed Methods)** | External – realist<br><br>Internal - idealist | Subjectivist<br><br>Interactive | Participative<br><br>Transformative<br><br>Ideographic |

*Source:* Adapted from O'Leary (2004), Creswell (2003), Marsh and Furlong (2002), Easton (2002) and Riley and Love (2001)

The key notion of positivism is that the social world exists externally and that its properties should be measured through objective methods rather than being inferred subjectively through sensation, reflection or intuition (Easterby-Smith, Thorpe and Lowe, 2003; Hutchinson, 1988). Researchers who apply this positivist view to their research consider any phenomenon in this reality to be directly observable and claim that any knowledge about a phenomenon must be universal. However, this view often opposes investigations in the field of social science and education where researchers are confronted with a multi-dimensional and multi-factorial environment (McLennan, 1992), and it is often not possible to develop experiment-based research in this context.

According to Hussey and Hussey (2003) the phenomenological paradigm is concerned with understanding human behaviour from the participant's own frame of reference. For the

researcher the question of multiple realities arises. In terms of ontology, social reality is not independent; instead, reality is socially constructed by the people who inhabit it and is in a constant state of revision. In this paradigm reality is a social construction of the mind (Pring, 2000) and research can only be understood within the context of, and through which it has been constructed (see also social constructivism later in this paper). Predominantly qualitative research takes the view that it is very difficult for researchers to stand back and be objective since they are really part of the process being researched, (White, 2000; 24) as the practice of education and researching education are inextricably bound together (Scott and Usher, 2000). This paradigm has been described as the science of phenomena (Hussey and Hussey, 2003) and stresses the subjective aspects of human activity by focusing on the meaning rather than the measurement of social phenomena. For example, there is constant interpretation and reinterpretation through which social reality is defined and suggests a qualitative approach to research. This contradicts and distinguishes itself from positivism in an attempt to understand and explain human and social reality (Crotty, 1998).

Realism, or more recently, critical realism assumes an existence independent of social actors and aims to discover underlining mechanisms to explain observed regularities, which require both a description and an explanation of social phenomena. According to Fitzpatrick (2005) critical realism is a reproductive approach, which begins with observation of connections between social phenomena, subsequently constructs hypothetical relations between phenomena, and then seeks to demonstrate the real existence of these hypothetical relations. Critical realism is a form of realism that recognises the reality of the natural order and the events and *"voices"* of the social world that argues for the use of both quantitative and qualitative inquiry (Sayer, 2000). This approach to research involves examining the entirety of findings and addresses both 'what' and 'why' research questions using tools and methods from both positivist and phenomenology philosophies.

Contrasting features between the paradigms and the methods and tools involved are also outlined in table 2 below, (MacKenzie and Knipe, 2006; Sayer, 2000; Easterby-Smith et al, 2003; Blaikie 2007).

**Table 2: Contrasting features between paradigms**

| | **Positivist / Post positivist (PP) Paradigm** | **Phenomenological (interpretative/ constructivism) Paradigm** | **Critical Realism (mixed methods/ transformative)** |
|---|---|---|---|
| **Basic Beliefs** | The world is external and objective | The world is socially constructed and subjective | The world is socially constructed and objective |
| | Observer is independent<br><br>**PP** – observer can be part of what is observed | Observer is part of what is observed | Observation is independent |
| | Science is value free | Science is driven by **human** interests | Science is driven by **research** interests |
| | | | There is a relationship between 'cause' and 'effect' |
| | | | Constitutes the link between reality and empirical |
| **Researcher Should** | Focus on facts | Focus on meanings | Focus on emerging outcomes |
| | Look for causality and fundamental laws | Try to understand what is happening | Focus on understanding and analysis |
| | Reduce phenomena to simplest elements | Look at the totality of each situation | Develop ideas from outcomes |
| | Formulate hypotheses and then test them | Develop ideas through induction from data | Combine deductive and inductive understanding |
| **Preferred Methods Include** | Operationalising concepts that can be measured | Using multiple qualitative methods to establish different views on phenomena | Using multiple quantitative and qualitative methods to establish different **views** on phenomena |
| | Taking large samples | Small samples investigated in depth over time | Build on research findings through the use of multiple methods |
| **Tools** | Experiments and quantitative methods are predominant | **Interviews, observations** and qualitative methods are predominant | **May include tools from both positivist and phenomenology paradigms** |

***Source:*** Adapted from MacKenzie and Knipe, (2006); Sayer (2000); Easterby-Smith et al., (2003) Blaikie (2007)

Johnson, et al (2007) suggests that there are different mixtures of ontological and epistemological assumptions of the paradigms, which justify different approaches to research as outlined in the tables above, and Bryman (2001 cited in Bryman and Cassell, 2006) suggest that the advantages of combining methods are significant.

Based on this premise a mixed methods approach that uses qualitative and quantitative research can be helpful to researchers as they can be complimentary, supportive or can validate results (Fox et al 2007; 21), rather than become conflicting. This would align the research either transformatively, pragmatically or within any of the paradigms depending on the priority of research approaches used (following Morgan's 1998 suggestion). Then once the research question and theoretical framework have been determined the methodology employed can then be examined.

**Methodologies**

The approach a researcher uses to investigate a subject is termed the 'methodology'; it is the philosophical basis on which the research is founded (White, 2000; 20). As mentioned earlier, methodologies coming from all of the paradigms outlined above could be chosen within a mixed method approach. As there are many choices of methodologies within mixed methods, three have been chosen that can be related to providing the adult learner with a "voice". These are social constructivism, hermeneutics and pragmatism.

**Social Constructivism**

In social research knowledge is concerned not with generalization, prediction and control but with interpretation, meaning and illumination. To explain the social world we need to understand it, to make sense of it, and hence we need to understand the meanings that *construct and are constructed* (epistemology) by interactive human behaviour.

Social constructivism claim that people construct their own meanings and learning by building on their previous knowledge and experience and the interactions of society. Vygotsky's work (1934) emphasised the importance of others as "learning mediators" (cited in Carlile and Jordan, 2005:21) whereas Bruner (1996 cited in Carlile and Jordan, 2005: 22) suggests that the intellect of the learning is framed by the surrounding culture and learning is a sharing of that culture. Bourdieu and Passeron (1990) claim that just as some lack economic capital others lack cultural or social capital for learning and it is this capital which Foucault (1975 cited in Carlile and Jordan, 2005: 23) suggests is embedded in the activities, social relations and expertise of specific communities (see also Ball, 2003 chapter 5).

Crotty (1998: 9) continues that the goal of the research within social constructivism is to rely as much as possible on the participant's views of the situation being studied, using broad general

questions and using narrative analysis formed through interaction. Human action is given meaning by interpretive schemes or frameworks (Scott and Usher, 2000) such as stories or narratives. This paradigm is commonly described as the qualitative approach to research as the phenomenological method adopts a subjective style, in that the researcher and the research or study are linked (Hussey and Hussey, 1997; 2003). Biographies and case study interviews would illustrate this narrative style.

Another methodology influencing research using mixed methods can be found in hermeneutics.

**(Critical) Hermeneutics**

Freire and Habermas as discussed in Morrow and Torres (2002) highlight critical hermeneutics as that which seeks to transcend the polarization between interpretation of text and explaining *"hermeneutic of suspicions"* (chapter 3) based on traditions and cultures. They also argue that social agents and the text and traditions of a culture must be argued and reflected upon for understanding the meaning of human and symbolic expressions within this culture. Both its strengths and weaknesses for the individual involved in this social network and culture must be critically reflected upon and not just accepted as a given. Individuals can therefore through text and communication become critical about our own meaning within society. This is referred to as 'emancipatory reflection' (Morrow and Torres, 2002). This within education becomes 'transformative' and 'emancipatory' for the individuals involved.

For example, an adult learner who enters higher education (maybe the first in their family, and/or first amongst their peers or network to do so) may reflect upon the way they broke away from the 'norm' of their traditions, cultures, social values, to become part of the higher education 'privileged'. Critical hermeneutics requires an employment of a full range of methodological technique for reflexivity and pluralism.

Another framework that may involve more than one type of method is the pragmatic approach. That is a 'neither' 'or' but rather 'both' types of qualitative-quantitative mixed method employment based on complimentary, supportive and triangulation (Fox et al, 2007).

**Pragmatism**

A pragmatic stance to using mixed methods would entail a choice of methods guided by the questions and issues surrounding a particular study, independent of philosophical differences

associated with quantitative-qualitative paradigm wars within the research fields (Chaterrji, 2005: 18; Johnson and Onwuegbuzie, 2004: 15). Johnson and Onwuegbuzie, (2004: 15) also suggest that researchers and research methodologies need to ask when each research approach is most helpful and when and how they should be mixed or combined in their research studies (referring back to research being a fitness for purpose).

Combing methods in a quantitative/ qualitative mixed methods approach may lend it to be more complimentary and supportive of each other rather than conflicting (Fox et al 2007: 22). The information that would be gained throughout interviews (mainly quantitative with some qualitative) could strengthen the biographies or life histories (qualitative and narrative) obtained at the end and verify the information received.

Mixed methods research should use a method and philosophy that attempt to fit together the insights provided by qualitative and quantitative research into a workable solution. Pragmatism can help mix methods because essentially research approaches should be mixed in ways that offer the *best solution* to the research question (Johnson and Onwuegbuzie, 2004: 15).

The fundamental issue is the research question which should direct the research, the methods employed and the philosophical and methodological underpinnings of the research. There should not be an either/ or paradigm rather an inclusive, pluralistic and complimentary approach as advocated earlier in this paper.

Interviews would fulfill this perspective, involving the learners to reflect on their lives in education from what motivated them to enter into higher education, their choice to 'dropout' from or progression in education, and further onto employment and career choice afterwards. This is a reflective process for them and would involve a learner's story to be told. They would be 'reinterpreting' their journey through use of their own "voice".

The quantitative and qualitative approaches (outlined below) will be able to give a more holistic view of the adult learner and more personal opinions of higher education as perceived by the adult learner through their "voice". A pragmatic mixed method (critical realism) approach to research is more appropriate in this area of adult education as it would focus on the 'what' and 'how' of research (Creswell, 2003: 11).

**Some methods used**

Techniques used to collect data and information is termed 'methods' (White, 2000). Examples of qualitative research methods are action research, case study research and ethnography (Crotty, 1998) which would include research resources such as observation, participant observation, interviews, questionnaires, documents, texts and the researchers' and interviewees' own experiences to answer the question, 'why?'. This supports Denzin and Lincoln's (1998; 2-3) observation that qualitative research is multi-method in focus involving an interpretative, naturalistic approach to its subject. Quantitative research used in mixed methods on the other hand provide the researcher with 'how many' obtained through surveys, interviews, questionnaires, statistics retrieved from text and documents.

It is important to recognise and understand that all research methods have limitations and the convergence of results across different methods may help to validate and compliment findings. A more thorough picture can be obtained by using more than one research method as information gained from one (i.e. case study interviews and surveys) can strengthen the other aspect of the research (i.e. biographies of adult learners on a course) as outlined by Morgan (1998).[1].

Increasingly combining and coordinating the purpose of both methods within the overall research is seen as complimentary. Morgan (1998 cited in Fox et al 2007: 22) describes this process as the priority/ sequence decision. Having defined the purpose of the study and realized that a mixed method study is appropriate, by either for purposes of confirming; combining for strength or for complimenting the approaches the researcher must make two important decisions: Which is the principal research approach and which will be the complimentary method? Then, which is employed first, followed-up by the other method chosen. This results in four alternative strategies outlined by Morgan (1998) in table 3 (cited and adapted from Fox et al 2007: 23).

[1] For further details on methodological work in mixed methods please see also Bruwer and Hunter, (1989); Creswell, (2003); Greene, Caracelli and Graham, (1989); Johnson and Christensen, (2004); Newman and Benz, (1998); Reichardt and Rallis, (1994); Tashakkori and Teddlie, (1998, 2003).

It is clear that adult learner surveys, interviews (e.g. case study and structured interviews) are effective in eliciting the complex reasons behind adult learners' motives to go into higher education and to stay in a course, change courses and so on (Robinson, 2004). Biographies, life histories and narratives can then be formed through further unstructured interviews with a smaller sample of the participants as a follow-up in a principally qualitative approach to compliment or validate the research.

**Table 3: Priority sequence model for combining qualitative and quantitative research in Mixed Method research**

| | | **Priority decision** | |
|---|---|---|---|
| **Sequence decision** | | **Principle method quantitative** | **Principle method qualitative** |
| | **Complimentary method: Preliminary** | A smaller qualitative study helps guide the data collection in a principally **Quantitative** study.<br><br>**Example:** Open ended interviews with college administration to understand the occurrence of drop-out within a course to be followed by closed questionnaire survey sent to those students who have left the course | Smaller quantitative study helps guide the data collection in a principally **Qualitative** study<br><br>**Example:** A survey of students on a course is used to identify those at risk of dropping out. This is then followed up by open ended interviews with these students identified as "at risk". |
| | **Complimentary method: Follow-up** | A smaller qualitative study helps evaluate and interpret results in a principally **Quantitative** study.<br><br>**Example:** Structured interviews (forming a case study) of adult learners on a course reveals many different motives for choosing that course. A biographical analysis of one or two adult learners is used to distinguish different types of backgrounds. | A smaller quantitative study helps evaluate and interpret results in a principally **Qualitative** study.<br><br>**Example:** (Similar to that opposite) In-depth interviews with adult learners show up different types of motives for choosing a course. Follow up surveys are used to gather demographic and other biographical information not already garnered from the interviews. |

*Source:* Morgan (1998) (cited in, and adapted from, Fox et al 2007: 23). Please also refer to an earlier version of qualitative-quantitative triangulation of methods in Morse 1991 in appendix 1. Please refer to strengths and weaknesses of the paradigms in appendix 1.

**Case Studies**

Case studies are strategies for doing research which involves an empirical investigation of a particular contemporary phenomenon in its real life context using multiple sources of evidence (Robson, 1993: 52) and offer the opportunity for a holistic view of a process, as the whole can only be understood by treating it as the central object of study (Gummesson, 2000; Yin, 2003: 1). As a research undertaking the case study contributes uniquely to our knowledge of individual, organizational, social and political phenomena (Patton and Appelbaum, 2003; 63) sometimes using a study of one single case (Robson, 2002; Stake, 1995) or providing stronger substantiation of constructs through multiple data collection methods and multiple case studies as espoused by Eisenhardt (1989). Cohen *et al* (2000) suggests that,

> *Case studies can penetrate situations in ways that are not always susceptible to numerical analysis.*

Stake (1995: 3) distinguished between intrinsic case study and instrumental case study. Instrumental case study research as it is referred to by Stake (1995) and Bassey, (1999) as research into one or more particular situations in order to try to understand an outside concern would be useful within adult learner motives and reasons for retention and progression.

White (2000) outlines some advantages and disadvantages of case study research. The advantages are that it can be carried out by the single researcher, it is relatively cheap and not dependent on expensive technology, the data may not be present in large amounts but will be interesting and specific to the example under investigation, it takes place in a natural setting and gives the research the reality that can be missing from other forms of research such as closed questionnaires.

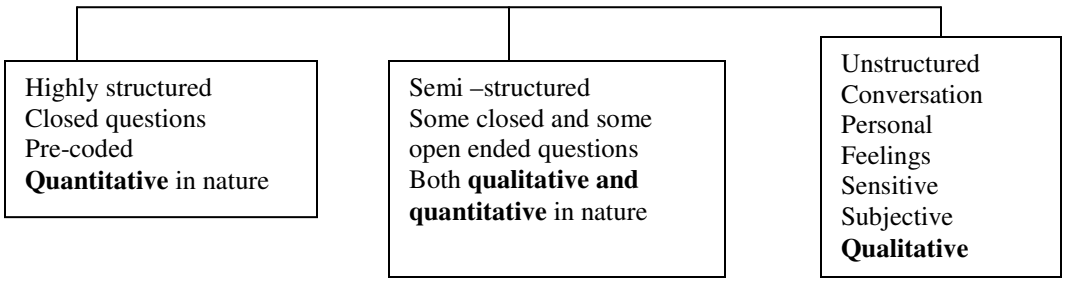
Disadvantages are generalization needs to be handled with caution; case studies can generate a lot of information but can produce some very interesting material which should be handled with care considering there are a lot of different opinions and sometimes very similar opinions being 'voiced'.

Yin (2003; 57), states that case study research is among the hardest types of research to do because of the absence of routine formulas, however, this can be handled extremely well during the interview.

## Interviews

One of the most important sources of case study information is the interview. Some interviewing is done according to fixed schedules of questions all of which are asked in exactly the same way in all interviews (Spiggle, 1994), which is more quantitative in its approach. Other interviews are like guided conversations (Kwortnik, 2003; 118) rather than structured queries (Yin, 2003; 89), fluid rather than rigid (Rubin and Rubin, 1995). Wisker (2001: 167) further outlines the different interview methods from highly structured to unstructured in figure 2 below.

**Figure 1: The Interview Continuum (adapted from Wisker, 2001)**




The researcher must be able to interpret the information as it is being collected and to know immediately if several sources of information contradict one another and lead to the need for additional evidence, like a good detective, and then you must make inferences about what actually transpired (Yin, 2003; 61), becoming part of the research (as in phenomenology) as interpreter mostly during and after the interview has been conducted (Kwortnik, 2003; 119). The researcher not only aims to acquire information from the subject, but also can observe the interviewees facial expressions and body language, or tone of voice, all of which contribute to the overall experience of the interview and/ or observation (Wisker, 2001: 165).

Hence the presence of the researcher in this situation is central to the research taking place. As Hussey and Hussey (1997) indicate,

> *Researchers have values [which] help to determine what are recognized as facts and the interpretations which are drawn from them, [that is] the researcher is involved in what is being researched.*(1997; 49)

The objective of the depth interview is to obtain rich, detailed data that reflect the informants' language, experience and perspective "in depth" (Spiggle, 1994) and provide for the interviewee their 'voice'.

Interviews can be used as a complimentary approach or in a triangulation approach such as in mixed methods, when statistics already obtained through surveys or questionnaires need further exploration or tuning, or the research needs to go further in-depth with a smaller sample to fully understand the situation or topic being researched. For example interviews can help to discover 'why' adult learners 'drop-out' or progress onto other forms of education or employment. Statistics gathered from registration and end of year progression reports can highlight the need to ask 'why' they leave or 'why' they progress providing them with a 'voice'.

Robson (2002) outlines particular circumstances in which interviews are appropriate:

Where the study focuses on the meaning of particular phenomena to the participants e.g. how adult learners decide what and how to learn, and when and where they will learn; where individual perceptions of processes within a social unit are to be studied prospectively e.g. motives of adult learners; where individual historical accounts are required of how a particular phenomenon developed e.g. discussions under focus group interviews will highlight how adult learners came to choose the course they are in today.

As a further method of inquiry to highlight the individual, and provide them with a 'voice' after the inquest of interviews and case studies, life histories, narratives and biographies when studying adult learners in higher education will be evaluate.

**Life Histories, Narratives and Biographical**

Life histories and narratives focus on the individual, the importance of the person, and it is this which sets this type of research apart from other types of qualitative approaches. The material of the life histories comes from the participants themselves through use of case studies and/ or interviews to provide a 'voice' for the participant (Berg, 2004: 245).

> *Today voice can mean, especially in more participatory forms of research, not only having a real researcher, and a researchers voice in the text, but also letting the research participants speak for themselves. (Lincoln and Guba, 2000; 183)*

Life history is always the history of a life, a single life, revolving around questions pertaining to one's life, at a particular time, place and social interactions, told from a particular view, but the use of life stories in educational research needs to become part of the broader picture in context. We often narrate our lives according to a prior script, written elsewhere, by others, for other purposes (Passerini, 1987: 28), but allowing people have their 'voice' or let them tell their 'story' (the narrative) will need the support of history, social construct and constraints and the social milieu (Goodson, 1995) as we construct the narrative both at an individual level and at a societal level and it can show how the life has gone in a particular way (Bruner, 1990: 119, 121).

Narratives are about how we tell our stories rather than what is being told and it becomes a window to ways of knowing (Petra Munro cited in Hatch and Wisniewski, 1995: 115). Much has been written on narratives in the human and social sciences (see Polkinghorne, 1988; Bruner, 1990; Czarniawska, 2004) and narrative learning in adult education (Rossiter, 1999; Rossiter and Clark, 2007) for analysing life histories (Tedder and Biesta, 2008:1). Not forgetting West's work on auto/biography in research (West, 1996; 2001; 2007; Hunt and West, 2006; West et al 2007; Fraser and West, 2008).

Narrative may be a style of story telling, a story of an episode of one or more people, to try to make sense or meaning of experiences (Hatch and Wisniewski, 1995: 115 & 116). For example, why adults learners were motivated to go into higher education or why they did not.

We need to move from life stories to life histories, from narratives to genealogies of situation, towards a style that embraces stories of learners' lives. Life stories and life histories are social constructions which allow us to locate and interrogate the social world in which they are embedded, (Goodson, 1995: 98). It is implicit and reflexive learning which is socially structured, what Fraser and West (2007: 3) refer to as being enmeshed in relationships, and based on experience (Alheit and Dausien, 2002: 15-16).

Biographies can illustrate how macro level processes (such as widening participation policies etc.) affect individual lives and therefore how agency, (using Bourdieu, see also Warren and Webb, 2007), can be nurtured (Fraser and West, 2008: 2). Intentions, (beliefs, desires and commitment) which are in constant flux, and meanings, (shared social agreement about concepts), are central to understanding a participant in a qualitative study according to Bruner (1990 cited in Maykut and Moorehouse, 1999: 38). Meaning making within one's life is essentially embedded in the narrative of life histories and biographies.

Alheit and Merrill (2001: 2; see also Alheit and Dausein, 2007) support Bruner by suggesting that biographical approaches to research allows the researcher to connect early life experiences, such as initial schooling, with current ones and identify a pattern, or not, of lifelong learning. They suggest that life history interviews enable adult learner 'voices' to be heard as interviewees' reflect upon, interpret, construct and learn through past experiences within a social context.

Biographical analysis represents one strategy of enquiry into people's lives providing a retrospective account which is sometimes more than a memoir (Tierney, 2000). Gummesson (1991: 158) suggests that the value lies in

> *….yielding data about participants views of social …….. situations in which they are actively and personally involved.*

Biographical analysis is applied in the study of personal social action, and frequently represents second person interpretation and account of social and economic conditions of past times (Bulmer, 1992). It depends upon the use of a rhetorical figure and a representative individual is chosen to represent an entire culture (Tedlock, 2000). Biographical analysis and research is through collecting and analysing documents (sometimes quantitative) and interviews (mostly qualitative) (Apitzsch and Inowlocki, 2000: 55).

This is the underpinning element of importance for the use of biographies and the adult learner. It is not only to allow them have a 'voice' but also to acknowledge their part in the wider higher education debate.

Negotiation of access and the terms under which a researcher will be able to work with participants, especially in the area of biography research, can be difficult to arrange (Jarzabkowski, 2001) and it has only been recently that concerns about the ethics of research have strongly influenced psychologists (Benson, 2002; 166). For further information on ethics in research please refer to appendix 2.

**Discussion and Post Script**

Having chosen to review mixed methods within adult education it soon became clear how complex an issue mixed methods really is but how it can also provide the researcher with a clearer solution to the research question by combining and/ or complimenting research approaches and methods. What can become confusing is where exactly the mixed method

approach lies within the theoretical framework and consequently the methodologies as the mixed methods paradigm may actually overlap all.

However, if a pragmatic stance is chosen, as was used by the Chicago School (Dewey & Mead et al) in the 1920's, i.e. decide to direct the research with the research question and use methods, methodologies and a framework that would '*fit the purpose'* then the research becomes unambiguous.

Furthermore, Morgan's 1998 Priority Sequence Model is a very useful tool for directing the mixed method approach and practical when choosing methods to employ such as quantitative versus qualitative, a mix of both and when to use one before the other based on their strengths and the information required.

The methods employed to provide information and the informants' 'voice' was central to this paper. Case studies and interviews can be both quantitative and qualitative in nature and if the 'voice' must come through the information gathered biographical studies must also be employed to compliment, support and validate the information gathered through interviewing.

Care must be taken when choosing a mixed method approach to research but it can provide a reward as the information gathered through using both research approaches (qualitative/ quantitative combinations as directed by Morgan 1998) is enriched and strengthened in a way that using one or the other alone may not.

Any methods of inquiry used must highlight the importance of the individual and this is why it is important to use mixed methods so the individual does not get lost among the statistics.

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*Appendix 1*

**Table 1: Strengths and weaknesses of the paradigms**

| Paradigm | Strengths | Weaknesses |
|---|---|---|
| **Positivist** | Wide coverage of a range of situations.<br>Can be quick and economical.<br>May be of considerable relevance to policy decisions (especially when statistics are aggregated from large samples). | Inflexible and artificial methods.<br>Not very effective in understanding processes or the significance people attach to actions.<br>Not very helpful in generating theories because they focus on 'what is'. |
| **Phenomenological** | Ability to look at change processes over time.<br>Provides ways of gathering data that is seen as natural rather than artificial.<br>Ability to adjust to new issues and new ideas as they emerge and to contribute to the evolution of new theories.<br>Ability to understand meanings. | Data collection is time consuming and needs many resources.<br>Often assigned low credibility by policy makers.<br>Difficult to control pace, progress and end-points of study, hence often criticized as 'untidy'.<br>Analysis and interpretation of the narrative data may be difficult. |
| **Critical Realism** | Interdependent view concerning interactions.<br>Ability to adjust to new issues and new ideas as they emerge and to contribute to the evolution of new theories.<br>Allows for dynamic and flexible methodologies.<br>Accepts the complexity of social-scientific research.<br>Constitutes the link between reality and empirical.<br>Allows for both identification and investigation.<br>Provides an alternative and useful framework for management research.<br>Allows for a **mixed method approach** to research.<br>Addresses both '**what' and 'why'** research questions. | Data collection can be time consuming.<br>Requires **multiple sources of data collection.**<br>Contributes to the complexity of research. |

***Source:*** Adapted from Sayer (2000); Easterby-Smith et al., (2003); Riege (2003) and Downward and Mearman (2006)

**Table 2: Approaches to qualitative-quantitative triangulation**

| Combination | Timing of Data Collection | Purpose |
|---|---|---|
| **1. qual→QUANT** | Sequential | First piece of research informs the construction of the research instrument for a predominantly QUANTITATIVE study |
| **2. quant→QUAL** | Sequential | Quantitative research identify sub samples for a more intense, principally QUALITATIVE study |
| **3. QUANT→qual** | Sequential | Qualitative follow-up study sheds more light on a principally QUANTITATIVE study |
| **4. QUAL→quant** | Sequential | Quantitative piece of research tests the hypotheses derived from a principally QUALITATIVE study |
| **5. QUANT+qual** | Simultaneous | Qualitative questions in a principally QUANTITATIVE instrument to prove and elaborate on questions and opinions held |
| **6. QUAL+QUANT** | Simultaneous or Sequential | Integrated approach. Both are equal and one enhances the results from the other research. Done together or as a follow-up |
| **7. Ethnography** | Intertwined | Multi-method approach par excellence uses multiple methods of research and data sources. |

Source: Adapted from Morse (1991 cited in Groger and Straker, 2002: 185)

Capitals represent the importance of the approach in each combination.

**Appendix 2:**

**Ethics in educational research**

During educational research topics being researched together with those being researched may be of a highly sensitive nature so consideration of ethics within the research is of the utmost importance. Ethics is all about how we live in relation to one another and our moral obligations not to misuse or misinterpret to our best ability any information or assistance that would be given to us when conducting research.

In relation to educational research ethics refers to the search for rules of conduct that enable us to operate defensibly in the political contexts in which we have to conduct educational research (Simons, 1995; 436; Pring 2000; 140; Punch, 2002). Ethical problems emerge in all methodologies, although much of the discussion of ethics in educational research is focused on the interpretive, critical and feminist paradigms (Busher, 2002: 81). Educational research should be conducted within an ethic of respect for persons, respect for knowledge, respect for democratic values, and respect for the quality of educational research (McNamee and Bridges, 2002; 251).

We must always remember that there is no one rule on earth without exceptions (Small, 2002; 96) in the end it is everyone's responsibility to ensure that educational research is ethical research and the better prepared we are to address this task the better our research will be (Small, 2002; 109).