FOUNDATIONALISM AND NON-FOUNDATIONALISM IN ENTREPRENEURSHIP RESEARCH: BEYOND THE QUANTITATIVE/QUALITATIVE DIVIDE

Richard Harrison: Queen’S University Management School, Belfast, United Kingdom
Claire Leitch: Queen’S University Management School, Belfast, United Kingdom
Frances Hill: Queen’S University Management School, Belfast, United Kingdom

Contact: Richard Harrison, Queen’s University Management School, Queen’s University
Belfast, 25 University Square, BT7 1NN Belfast, UK, (T) +44-2890-973621, Email: r.harrison@qub.ac.uk

ABSTRACT

This article reviews the role of qualitative research in entrepreneurship. We argue that a strong commitment to non-foundationalist qualitative research, and the methodological pluralism this implies, should be a feature of the field as it matures. However, there are a number of widely reported problems with qualitative research in terms of the validity, reliability, rigor, robustness and communicability of its results that militate against more widespread adoption of these methods. We explain how these requisites can be assured by describing the research process followed in a recent qualitative study employing the critical incident technique (CIT).

INTRODUCTION

While Aldrich & Baker (1997) have recognised that entrepreneurship research may adopt multiple paradigms, reflecting competing interests and approaches and demonstrating a concern with practical relevance, from a normal science point of view progress has been limited. This is the case both in comparison with past research in the field and with more general high quality organizational research. Specifically, they have argued that convergence in entrepreneurship research, “the idea that as an intellectual field matures, it becomes increasingly characterized by a set of codified theories, models, methods, and/or measures” (Grégoire, Nöel, Déry & Béchard, 2006), should in part focus on the research designs, samples and methods used. This very quickly may lead to an argument that, to paraphrase Feyerabend (1970), the recipe for a successful science is to restrict criticism, reduce the number of comprehensive theories to one, create a normal science that has this one theory (and its associated methodological strictures) as its paradigm, and “provide a historico-scientific justification for the ever growing need to identify with some group” (p. 222).

As a result there is a developing view in entrepreneurship that the systematic adoption of a research paradigm characterised by a commitment to theory building and testing in a hypothetico-deductive framework using quantitative methods to analyse large-scale data sets and establish generalisable findings, is both necessary and desirable to confirm the maturity of the field (Davidsson, 2003). This is consistent with the argument that the majority of research in entrepreneurship is already firmly grounded in the functionalist paradigm (Burrell & Morgan, 1979) and is based on a set of meta-theoretical assumptions that define the objectivist perspective (Jennings, Perren & Carter, 2005). In this context qualitative research assumes the status of a necessary transitional phase that reflects the relative youth of the field and the consequent lack of time to become familiar with all aspects of the ‘entrepreneurial phenomenon’ and to develop relevant theory (Davidsson, 2004). In other words,
Qualitative research is perceived to be a condition of youth and adolescence; quantitative research is a sign of maturity. Consequently, in the face of these arguments for convergence around an agreed methodology, an ongoing commitment to qualitative research bears many of the characteristics of fighting a rearguard action against the unassailable tide of science.

However, we believe that a more considered approach that moves beyond the quantitative versus qualitative debate can provide a robust philosophical justification for the centrality of qualitative research. The starting point for this approach is the distinction between foundationalist and non-foundationalist research (Amis & Silk, 2008; Guba & Lincoln, 2005; House, 2005). Foundationalist research is predicated on the attempt to uncover, analyse and interpret some aspect of an objective reality, that is, a reality “that can be uncovered, documented and not contaminated by a researcher” (the classic positivist position) or an independently existing external reality “that it is almost impossible to perfectly realize...although the researcher and the research site cannot be completely separated, steps can be taken by conscientious researchers to minimise the effects of the researcher on the findings” (the post-positivist position) (Amis & Silk, 2008, p. 475; see also Guba & Lincoln, 2005). Gephart (2004) notes that both quantitative and qualitative research can be undertaken from a foundationalist standpoint, and demonstrates that the majority of qualitative research he has reviewed is firmly set within a positivist or post-positivist objectivist position. As such, foundationalist qualitative research is subject to evaluation according to the traditional criteria of internal and external validity, reliability, objectivity and generalization.

Non-foundationalist research on the other hand, is predicated on the argument that all knowledge is theory- and value-laden, that there is no possibility of uncovering neutral social facts and, therefore, there is no possibility of arriving at absolute truths independent of the “context in, and the researcher by, which they are constructed. In this formulation, there can be no hypotheses to be tested, proven, disproven, or retested, as there are no objective facts to uncover” (Amis & Silk, 2008, p. 457). In other words, the objects of social inquiry are essentially different, in an epistemological sense, from everyday things. Social objects are identified by the descriptions, classifications, or explanations of the disciplines of social inquiry. The objectivity of these descriptions, classifications, or explanations “entails finding out what procedures (theoretical, practical) are used to produce [them]. This should allow us to say that the objects so described, classified or explained are at least partly ‘constructed’, or produced by, those procedures themselves” (Montuschi, 2003, p. 118). Consequently, objectivity in social research is not and cannot be a prescriptive concept in empirical social science research, nor is it a standard of correctness set out in advance of inquiry: “talking of objectivity only makes sense in the concrete context of an assessment of a described objective inquiry” (Montuschi, 2003, p. 119).

This has significant implications for the determination of quality in non-foundationalist research. If there can be no ‘appeal to the facts’, the external (or objectivist) basis for determining quality, the theory-ladenness of observation requires the internalization of quality within the research philosophy underlying the project. In other words, quality is determined by the purpose and positioning of the research rather than “being something to be tested at the completion of the research or an outcome of the application of robust methods” (Amis & Silk, 2008, p. 458). Thus, the issue for debate is not the legitimacy of qualitative research, for that follows from a non-foundationalist epistemology, but its robustness and internalized quality, and it is this issue that we explore in the remainder of this paper.

In the context of entrepreneurship research this issue, though it has not been explicitly articulated, underlies the debate over the adoption of qualitative methodologies. The generally low adoption of, and regard given to, qualitative research in entrepreneurship has been attributed primarily to a perceived lack of methodological rigor and attention to detail in those studies that have been undertaken (Gartner & Birley, 2002; Neergaard & and Ulhøi, 2007). It is, of course, possible that qualitative studies in entrepreneurship are of intrinsically poor quality (although the definition of quality and the indicators of quality are matters for debate (Easterby-Smith, Golden-Biddle & Locke, 2008)). Equally, as Gephart (2004) and Locke (2001) have suggested, in different contexts, researchers may have undertaken robust qualitative research but failed to describe the research process in sufficient detail. We argue that the debate over quality in qualitative entrepreneurship research has been predicated on the assumption of foundationalist approaches to establishing quality. In this paper, therefore, we seek to redress the tendency of qualitative researchers to provide an insufficiently detailed exposition of the design, methods employed and the process involved in the collection and analysis of their data (Shaw, 1999), on the basis of which it would be possible to determine the intrinsic quality of the research based on an understanding of the philosophy underlying the research
design. In the remainder of this paper we explain how rigor and research quality can be assured in this context and ground this discussion in a concrete example of the research process followed in a recent qualitative study employing the critical incident technique (CIT). In particular, we adopt a non-foundationalist perspective which proposes that the issue of quality can only be addressed by viewing it as intrinsic to the research design, that is, it is internalised within the underlying research philosophy and orientation.

RESEARCH QUALITY AND QUALITATIVE RESEARCH

Despite calls for the adoption of more qualitative approaches in entrepreneurship (Neergaard & Ulhøi, 2007; Hindle, 2004; Gartner & Birley, 2002), and its widespread acceptance across the social sciences (Denzin & Lincoln, 2005), there remains a drift in value systems among researchers, reviewers and editors that favors quantitative research over qualitative (Easterby-Smith, Golden-Biddle & Locke, 2008; Pratt, 2008). In other words, it remains the case in practice that the continued advocacy of qualitative research more often than not has the feel of fighting a rearguard action against the hegemony of objectivist social science research. Fundamentally this reflects the fact that the traditional and still dominant method of assessing quality in research is the quantitative theory-driven approach central to the ‘scientific method’. This relies on a commitment to the objective discovery of the truth underlying the relations among facts, discovered using research that is characterized by the traditional criteria of internal and external validity, reliability, objectivity and generalizability (Amis & Silk, 2008).

Reversing this drift, and establishing that research quality is fully consistent with the adoption of qualitative methods, will not be easy. For example, van Maanen (1979) argued that it was necessary to reclaim qualitative methods for organizational research to portray more closely “the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world” (p. 539). Despite this, Amis & Silk (2008) nonetheless “contend that traditional and still dominant methods of assessing research quality, founded on a positivistic understanding of the social world, are inherently unsuited to producing the variety of scholarship necessary for a vital, dynamic organizational studies” (p. 456). The same issue has been identified as a potential constraint on the development of the field of entrepreneurship: indeed, Hindle (2004: 577) cautions that, “Unless entrepreneurship … begin[s] to embrace higher volumes of higher calibre qualitative research, the relevance and potency of the entrepreneurial canon will be severely compromised by a lack of the methodological variety that is so strongly displayed in other social sciences”.

From a non-foundationalist perspective, in the social sciences qualitative research represents a move away from erklären, the deterministic explanation of human behaviour by establishing causal relationships between variables. Rather, it is concerned with verstehen, the understanding of human behaviour which entails, “capturing the actual meanings and interpretations that actors subjectively ascribe to phenomena in order to describe and explain their behaviour” (Johnson, Buehring, Cassell & Symon, 2006, p. 132). In other words, qualitative enquiry attempts to embrace the complex and dynamic quality of the social world, and allows the researcher to view a social research problem in its entirety, get close to participants, enter their realities and interpret their perceptions as appropriate (Hoepfl, 1997; Shaw, 1999; Bogdan & Taylor, 1975), by generating thick and rich descriptions of actual events in real-life contexts which uncover and preserve the meanings that those involved ascribe to them (Gephart, 2004).

With such research it is not possible to generalise from sample to population or across a range of settings as in the case of quantitative research, but rather to elucidate the complexity of the problem under investigation (Neergaard, 2007). The issue is not achieving external validity as the researcher cannot demonstrate generalisability of the findings. Instead, it is the researcher’s responsibility to provide sufficient information so that the reader may determine whether or not the findings are transferable to a different context and/or situation (Hoepfl, 1997). Ontologically, as Cope (2005) explains, with this type of research no assumptions are made about what is and is not real – descriptions of phenomena begin with people’s experiences of them. Thus, the research aim is not to confirm or disconfirm prior theories, “but to develop ‘bottom-up’ interpretive theories that are inextricably ‘grounded’ in the lived-world” (Cope, 2005, p. 167).

For these reasons there has been renewed interest in the potential of qualitative research in the field of entrepreneurship. Indeed, Gartner & Birley (2002) propose that many important entrepreneurship
questions can only be asked (and answered) through qualitative methods and approaches. They are careful though, not to enter a debate on whether qualitative research is more “truthful” than quantitative research; rather, they argue that use of both approaches by entrepreneurship researchers is likely to mean that a wider range of questions may be addressed. This argument is developed further by Ulhøi & Neergaard (2007) who assert that there is no one superior methodology for researching entrepreneurship, rather the approach chosen must be determined in light and the context of the question to be answered. Furthermore, as our discussion suggests, the issue is not whether to use quantitative rather than qualitative methodologies but whether to ground our research in a foundationalist or non-foundationalist epistemology.

Lincoln & Guba (1985) have partially addressed the issue of establishing rigor in qualitative research, albeit from a quasi-foundationalist perspective, by arguing that the onus is on qualitative researchers to demonstrate the neutrality of their interpretations of the data gathered, by adopting a ‘confirmability audit’. This would present an overview of the analysis and interpretation process, comprising presentation of the raw data, the researchers’ analysis notes, reconstruction and synthesis products based on this analysis, notes on the conduct of the research and analysis process, personal notes, and preliminary developmental information. Davidsson (2004), writing from a foundationalist standpoint, rightly emphasises the importance of showing the development of rigor throughout the entire process: “with rigor I then mean, roughly, well-founded motivations for the selection of cases or the like; systematic and transparent procedures for data collection and analysis etc” (Davidsson, 2004, pp. 58-59). Gephart (2004, p. 458) elaborates this by pointing out that researchers often fail to describe the research process in sufficient detail and fail to articulate “how research practices transform observations into data, results, findings and insights.” In other words, for rigor to be achieved, the use of qualitative methods requires, “carefully, and thoroughly capturing and describing how people experience some phenomenon – how they perceive it, describe it, feel about it, remember it, make sense of it and talk about it with other” (Patton, 1990, p. 104). This requires both a sound understanding of the research approach adopted as well as experience and skill in the use of qualitative data gathering and analysis techniques. The responsibility of qualitative researchers is, therefore, to provide their audience with sufficient information on the design and conduct of the research to allow them to assess the intrinsic rigor and robustness of the process.

ESTABLISHING QUALITY IN QUALITATIVE RESEARCH: A WORKED EXAMPLE

To illustrate how rigor in qualitative research can be signalled as intrinsic to the research design and execution, we draw on our experiences of conducting one specific qualitative investigation, using critical incident technique (CIT). This study is based on the investigation of women’s perceptions of the experience of raising external finance for the start-up and growth of their businesses (xxxx, 2006). As women business owners are not a homogeneous group, and it is no longer appropriate to identify ‘the male’ as the benchmark against which female entrepreneurship is judged (Ahl, 2004, 2006; Carter & Brush, 2004), it is essential that research is designed to encapsulate their heterogeneity as well as their context in terms of time and space. In other words, to capture the complicated and dynamic nature of the process of seeking and obtaining finance, qualitative analysis is required to give ‘voice’ to women’s experiences in their own right. In the following sections we present a detailed account of the research process, data collection protocols, inductive data analysis and interpretation followed in this study.

Sampling Strategy

Sampling in qualitative studies has been identified as a problematic issue. For example, Coyne (1997) notes that sampling procedures are often not as systematically prescribed as in quantitative studies, and the lack of clear guidance on the principles of sampling can cause confusion. This relates to the fact that, “the rules and procedures for engaging in quantitative research are … institutionalised and accepted as the standard” (Gartner & Birley, 2002, p. 388) which is not the case in qualitative research. Rather than applying abstract criteria of representativeness in seeking to develop a large-scale sample survey, or adopt an approach based on ‘exemplary cases’, we based our empirical research on ‘criteria of expected diversity’ (Bruni, Gherardi, & Poggio, 2005, p. 6). To this end, we oriented our sample towards ‘gender-atypical’ businesses (Blake & Hanson, 2005), that is, women-owned/led businesses in male-dominated sectors such as construction, engineering and high technology, or with (assumed) male-pattern behaviours, such as growth-orientation and exporting (O’Reilly, 2005; Carter & Brush, 2004). The sample was purposive in nature, so that cases rich in
information concerning the issues of interest could be studied in depth (Patton, 1990; Shaw, 1999).
Such a sampling strategy was deemed appropriate as it permitted the selection of revelatory cases
which allowed us to observe and analyse phenomena that previously had been subject to little or no
investigation (Yin, 1989). In our study theoretical saturation (Glaser & Strauss, 1967) of the common
themes and patterns occurred when nine women had been interviewed (Shaw, 1999). A couple of
contextual issues may explain why this was so. First, the population of women whose businesses may
be defined as high-tech and with the potential for exporting and growth is very small in the study
location. Second, these women tended to share similar perceptions of the experience of raising finance
for their businesses.

Data Collection: The Critical Incident Technique

Qualitative research reports are characterised by expressive language and the ‘presence of voice in the
text’ (Eisner, 1991) achieved through quoting participants directly (King, 2004). To gather such data,
in-depth interviews with people who have "directly experienced the phenomenon of interest" should be
undertaken (Patton, 1990, p. 104). A widely used qualitative research method, which is recognized as
an effective exploratory and investigative tool for achieving this, is the critical incident technique
(Chell, 1998; Butterfield, Borgen, Amundson & Maglio, 2005). Originally developed from research
carried out in the Aviation Psychology Program of the US Army Air Forces during World War II by
Flanagan (1954) and others, CIT has been employed subsequently across a range of disciplines.
However, Harrison & Mason (2004) note that, to date, its use in entrepreneurship research has been
relatively limited.

Although initially employed as a task analysis tool, over time the method’s flexibility has expanded to
include the study of effective and ineffective situation-specific behaviors, as well as enabling and
hindering factors, and successes and failures (Butterfield et al., 2005). Chell (2004) observes that,
when the technique was used originally, positivism was not only the dominant paradigm in the natural
sciences, but also in the social sciences and so it was employed in both as a quantitative data collection
method. However, more recently it has evolved from a scientific tool to an investigative one that can
be used in interpretive investigations, a primary aim of which is to explore social and/or human
problems. Critical incident technique is appropriate to this type of context because, as Creswell (1998,
p. 16) notes, such research occurs in a natural setting; the researcher is the key instrument of data
collection; data are collected as words through interviewing, participant observation, and/or qualitative
open-ended questions; analysis is done inductively; and the focus is on participants’ perspectives.
Thus, “it is critically important that the researcher examines his/her own assumptions (and
predilections), considers very carefully the nature of the research problem to be investigated, and
thinks through how the technique may most appropriately be applied in the particular researchable
case” (Chell, 1998, p. 51). In the context of our particular study we consider this use of CIT as fully
consistent with a non-foundationalist perspective that sees quality in research as relational (Lincoln,
1995), grounded in the sharing of experience between the researchers and the participants in the
research (Amis & Silk, 2008). Specifically, an ‘incident’ here is understood as an incident that has
meaning for the participant, and it is this meaning that the research seeks to explore.

For an incident to be considered critical Flanagan stated that, “it …must occur in a situation where the
purpose or intent of the act seems fairly clear … and where its consequences are sufficiently definite to
leave little doubt concerning its effects” (Flanagan, 1954, p. 327). During CIT interviews respondents
are asked to recall specific events from their personal perspective and in their own words (Stauss &
Weinlich, 1997), thereby giving them ‘voice’. This permits ‘self-defined criticality’ where the focus is
on respondents’ “personal representation of salient moments” (Cope, 2003, p. 436; Cope and Watts,
2000, p. 112), thereby yielding “understanding of the incident from the perspective of the individual,
taking into account cognitive, affective and behavioural elements” (Chell, 1998, p. 56). Use of CIT
can enable the creation of detailed records of events (Grove & Fisk, 1997) and a rich set of data
(Gabbott & Hogg, 1996) which allows for the development of depth (“an outcome of the time, effort
and talent that is put into the analysis and interpretation work” (Davidsson, 2004, p. 59)) as well as
detail in qualitative data.

Set against these advantages CIT, like every data collection method, does have a number of
limitations. For example, critical incidents are generally reported from memory and are therefore
subject to its vagaries. However, Flanagan (1954) took the view that this risk could be lessened by
asking respondents to recount recent events; moreover, he pointed out that critical incidents are to do
with extreme behaviors – those which are either very effective or very ineffective with regard to the attainment of the general aims of an activity – and thus will probably be accurately recalled, though there is no guarantee that this will be the case (Urquhart, Light, Thomas, Baker, Yooman, Cooper, Armstrong, Fenton, Lonsdale & Spink, 2003). Another set of potential difficulties identified by Edvardsson (1992), concern the reporting of critical incidents where the interviewer may filter, misunderstand or misrepresent the respondent. However, this is less likely to be an issue where interviewers are experienced and are aware of such pitfalls. Cope & Watts (2000) also highlight the fact that the researcher has no guarantee the information provided by respondents will be relevant to the research question, especially where the interviews are highly unstructured.

Conducting the Interviews

Cope (2005: 176) points out that, in designing such interviews, researchers have to find a comfortable and achievable balance between pre-understanding (structure) and unbiased openness towards the phenomenon under study. Thus, in such interviews the course of the dialogue is largely set by participants (Thompson et al., 1989). Accordingly, we asked our participants two main questions, first, to describe one effective encounter which they had had with an actual or potential supplier of finance; and second, to describe one ineffective encounter which they had had with an actual or potential supplier of finance. Therefore, it was the respondents who defined what constituted both an incident and the effectiveness and ineffectiveness of that experience in the context of their own realities. Where other questions were asked these were merely prompts designed for two main purposes, first to seek clarification to ensure full understanding of the situation and context, as well as the meaning, of the respondent’s words; and second, to ensure that respondents’ answers were as complete as possible.

In keeping with the ethical principle of ‘informed consent’ (Bryman & Bell, 2007), one responsibility of the researcher is to provide potential respondents with enough information about the investigation to enable them to decide whether or not they wish to participate, and to ensure that those who agree feel free to describe their experiences in detail. Accordingly, we provided potential respondents with some general background information about the project, explained how and why they had been selected to participate in the research and that they could opt out at any point; a guarantee of confidentiality was also given. Pre-arranged interviews took place at participants’ premises and in their own private offices to prevent interruption. Permission was sought for the interviews to be taped. All but one of the respondents agreed, thus only one interview had to be transcribed manually by the interviewer immediately afterwards. The remaining eight were subsequently transcribed for analysis by an audio typist. Being experienced interviewers, we conducted the interviews ourselves and, like Cope (2005), found that the level of openness and candour displayed by the respondents was both surprising and stimulating.

Inductive Data Analysis

Basit (2003, p. 143) describes the analysis of qualitative data as being a difficult, dynamic, intuitive and creative process, the aim of which is to determine the assumptions, categories and relationships that inform respondents’ views of the world in general and of the issue under investigation in particular (McCracken, 1988). Qualitative researchers tend to analyse data inductively, which means that critical themes emanate from the data (Patton, 1990). Bogdan and Biklen (1982, p. 145) define inductive analysis as, “working with data, organizing it, breaking it into manageable units, synthesising it, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others”. Thus, the inductive approach is a systematic procedure for analysing qualitative data, the analysis being guided by the research objectives. It allows research findings to emerge from the dominant or significant themes teased from the raw data without the constraints of more structured methodologies (Thomas, 2003). From a foundationalist perspective, the ultimate aim of this process is the generation of theory rather than theory testing or mere description (Hoepfl, 1997; Eisenhardt, 1989). From a non-foundationalist standpoint however, the primary aim is to generate understanding of the participants’ sense-making in the research situation; while theory generation is not necessarily the primary focus of qualitative research in this context, it is not precluded.

Rigor in qualitative research is assessed not only on the basis of how it is conducted, but also on how it is reported. Ironically, although the inductive analysis of data is probably the most demanding aspect of the qualitative research process, it tends to be the least scrutinised element of that process (Miles, 1979; Shaw, 1999; Basit, 2003; Gephart, 2004; Gremler, 2004) mainly because it is described...
in insufficient detail. Our approach to inductive analysis comprised a number of elements: open coding; preliminary analysis of the data; axial coding; and the development of a thematic framework. The conduct of each element is described below.

Open Coding

Crucial and integral to inductive analysis is coding, which involves close reading and re-reading of the texts, usually interview transcripts, as in the case of our research (Easterby-Smith, Thorpe, & Lowe, 1991). The purpose of coding is to organise and make sense of the raw data. Codes are tags or categories “for allocating units of meaning to descriptive or inferential information compiled during a study” (Basit, 2003, p. 144). They are attached to words, phrases, sentences, or paragraphs connected or unconnected to a specific context. The identification of broad categories or themes is referred to as ‘open coding’ (Strauss & Corbin, 1990), the aim being to create descriptive categories which represent a preliminary framework for analysis. Miles & Huberman (1994) identify two approaches to the creation of codes: first, the grounded approach advocated by Glaser & Strauss (1967) whereby the researcher avoids pre-coding data until they are collected; and second, the creation of a provisional ‘start list’ of codes deriving, for example, from the research questions, hypotheses and so on. However, as Miles & Huberman (1994) explain, during analysis categories will change, develop and some will break down into sub-categories. The creation of such categories enables the researcher to question the data, change or drop categories and to order them (Basit, 2003). In our case we began with a ‘start list’ of thirteen preliminary codes or categories derived from the structure of the critical incident interview which had been informed by the literature reviewed (see Figure I).

Preliminary Analysis

Inductive analysis involves breaking down raw data into manageable ‘bits’ (Dye, Schatz, Rosenberg & Coleman, 2000), coding the bits and assigning to temporary categories those data bits which apparently relate to the same context. The volume of our data-set was of a size that permitted us to conduct the analysis manually. With larger data-sets coding and manipulation of text may be carried out using computer software such as NVivo. However, Bryman (2008, p. 565) points out that although such software may undertake the physical labour involved in inductive analysis, the researcher must still interpret their data, code and then retrieve the data. In order to facilitate the separation of the analysis of the perceptions and experiences of our research participants from our own perceptions of those perceptions and experiences, a necessary requirement to establish rigor in qualitative research, we adopted the following procedure. The nine transcripts were scrutinized by two of the researchers each of whom independently coded the texts on a paragraph by paragraph basis. Following Ryan & Bernard (2003) these researchers ‘pawed’ the text, which involved highlighting key phrases because they appeared to make some kind of sense (Sandelowski, 1995); this is known as the ‘ocular scan method’ (Bernard, 2000).

Based on a comparison of these independent codings it became clear that there was a very high level of inter-rater reliability in both the definition of text segments and the allocation of these to categories. Once agreement had been reached on the key bits of text, these were cut and pasted onto ‘post-it’ type gummed paper and then attached to a seemingly relevant preliminary category. Each section of text was coded in such a manner that it could be traced to the exact location in the relevant transcript. As recommended by Dye, Schatz, Rosenberg & Coleman (2000) two colours of gummed paper were used, indicating whether the section of text related to an effective or an ineffective encounter. Since the critical incidents in question were fairly specific in nature, very little text in the transcripts remained unallocated. After this time-consuming process had been completed, the two researchers checked all the text assigned to individual categories to ensure that the allocation of each piece appeared appropriate. If not, then the text was re-allocated to a different category or, occasionally, dropped from the analysis. It should be noted that a piece of text may be allocated to more than one category. At this point it was clear that four of the initial categories were redundant as we were able to allocate very few bits of text to them; in each case text was then re-allocated to the remaining nine categories as/if appropriate. Flanagan (1954) recommends that the categories are submitted to others for review. Accordingly, before further coding and interpretation was attempted, the third researcher was called upon to validate the work of his two colleagues. This required him to retrace their steps, check the accuracy of the analysis carried out at each stage of the process they had engaged in and to recommend any changes considered necessary.
Axial Coding
The process known as ‘axial coding’ involves revision and refinement of the categories and the creation of sub-categories, accompanied by attempts to determine how the categories relate to each other (Strauss & Corbin, 1990). It also entails constant comparison of codes and categories which emerge, with subsequent data collected and also with concepts outlined in the literature (Glaser & Strauss, 1967). By comparing and combining categories in new ways, the aim is not merely to describe, but to develop new insights into the phenomenon of interest (Hoepfl, 1997). It is through this process that a conceptual model, supported by the data collected, may emerge.

In carrying out our axial coding two of the researchers, as recommended by Basit (2003), developed a series of spider diagrams each representing one of the nine categories identified in Figure I. Bits of text were then organized into sub-categories around each of the main categories – these sub-categories ‘emerged’ from the texts and were based on the apparent congruence of meaning.

Theme Identification
While theme identification clearly is one of the most fundamental tasks in qualitative research, the process is rarely adequately described in the literature (Ryan & Bernard (2003). The purpose of inductive analysis is to create a small number of summary categories which the researcher considers capture the key themes in the raw data judged to be the most important in terms of the research objectives (Thomas, 2003) – see Figure II below. The aim of the process is to organize and structure data according to the issues and topics identified by research participants as being important in understanding the phenomenon of interest (Shaw, 1999), a grounded understanding, “derived from the concepts and categories which social actors use to interpret and understand their worlds” (Jones, 1985, p. 25) – in the case of our research, women’s perceptions of the experience of seeking finance for their businesses.

Theme identification may not be considered complete until multiple readings of the text have taken place and no sections of text, which are relevant to the research question, remain uncoded (King, 2004). By making linkages across the nine categories and between the sub-categories using the spider diagrams, the two researchers involved concluded that the nine categories could be reduced to five key themes. Again, the analysis was checked and validated by the third researcher.

One additional aspect of the theme identification phase of the analysis emerged only as the analysis proceeded and as the researchers discussed their interpretations. The process of theme identification may involve researchers searching for themes missing from the text, that is, what participants do not mention – contrary perhaps to what intuition and/or the literature would suggest they might. In our research for example, a missing theme was ‘the deal’, yet intuitively one might have expected the nature of the deal struck between applicants for, and suppliers of finance, to have influenced participants’ perceptions of effectiveness and ineffectiveness. In other words, a foundationalist analysis would begin by looking at the deal, that is, the transaction at the center of the search for finance, and the link between the outcomes of the deal and the reaction of the business owners. However, our analysis revealed that such reactions appeared to be influenced less by the substance of the deal and more by participants’ evaluations of the interactions between themselves and the actual/potential suppliers of finance. The ‘deal’ itself was not the significant issue for our business owners; rather, as one would anticipate from a non-foundationalist perspective, what mattered were the perceptions and experiences reported around the process of seeking finance, not the ‘fact’ (or otherwise) of actually obtaining that finance.

Inductive Data Analysis in Practice
One purpose of this paper is to describe how rigor may be achieved in qualitative entrepreneurship research by drawing on an investigation of women’s perceptions of the experience of raising external finance for their businesses, not to report the findings in detail (some of these are presented and discussed in Hill et al (2006)). However, as explained above, one aim of the qualitative researcher is to gain understanding of human behaviour (verstehen) by generating thick and rich descriptions of actual events in real-life contexts which uncover and preserve the meanings that those involved ascribe to them. Such reports are characterised by the use of ‘voice’ in the text through the inclusion of quotes from participants which illustrate the themes described (Hoepfl, 1997). Women’s perceptions of the effectiveness or ineffectiveness of encounters with actual or potential suppliers of external funding for
their businesses (the critical incidents), are influenced by: issues relating to the applicant; issues relating to the actual/potential supplier; the outcome of the encounter; and the context of the encounter. However, these high-level themes belie the volume and richness of the data generated by the research, which was seeking to provide insights into participants’ experiences of raising finance for their businesses and the meanings they attached to those experiences. As indicated, in qualitative research such insights are revealed by reporting participants’ responses in as much detail as possible thereby giving ‘voice’ to their realities.

Each of the themes identified comprises a number of categories and each category comprises a number of sub-categories. To illustrate, the theme ‘Issues relating to actual/potential supplier’ comprises the following categories:

- Nature of supplying organisation
- Personal characteristics of supplier
- Suppliers’ behaviours

The category ‘suppliers’ behaviours’ includes the following sub-categories:

- Provision of support
- Bureaucratic approach
- Knowledge/understanding of sector/project
- Communication with/feedback to applicant
- Preconceptions
- Interpersonal skills

To illustrate the process of open and axial coding, and the development of the themes, categories and sub-categories, the following is a brief extract from one of the interview transcripts regarding what was perceived as an ineffective critical incident.

“Well the two people that we were dealing with, one was the business banking manager, who looked after our account, and the other was the other person that he brought in as an “expert” in the area, and I do say expert in inverted commas. They seemed to come in with preconceived ideas, they hadn’t read the business plan that we had prepared and which we had spent a considerable amount of time and energy and money getting ready for them and for our own purposes obviously, for our own projections. And we went in prepared to talk about the business plan, the realistic achievements that we hoped to make out of that, our ongoing banking needs and how we would be prepared to really give them adequate protection, and we felt it was very much a fair approach given that, yes, we’re going to be taking risks, we would expect the bank to take an element of risk and, given the history that we’d had with the bank over the number of years that we’d been with them, we felt that we had, that we had done everything that we could to prepare for a productive meeting. We really did everything and with having excellent professional advisors with us also present at the meeting, we felt that it would be conducted in a professional way with a positive and realistic approach taken to the needs of the business and the needs of the bank, because I understand that banks have needs as well. But that wasn’t the case at all, it was, the person involved started, he was unhelpful, he didn’t communicate well, he started off in a poor way with his approach to us and to the figures, and it was evident he hadn’t prepared for the meeting in the business sense. And he, it just was totally unhelpful, it was totally unhelpful from the bank’s aspect and totally unhelpful from our aspect.”

During the coding and analysis some bits of the text in this extract (those shaded) were allocated to the following sub-categories: provision of support; knowledge/understanding of sector/project; communication with/feedback to applicant; preconceptions. Other bits of the text were allocated to different categories and sub-categories as appropriate.

The process of being given ‘voice’ in the course of the interview enabled this respondent to reveal, in considerable detail, the trauma which she evidently had experienced due to the behaviors of the corporate ‘expert’ of the bank, with which the company in question (a family business) had been conducting its finances for nearly sixty years. The trauma was occasioned by two main factors: First, the significance of the encounter in relation to the future of the business; second, the behaviors of the
bank official which were not what the respondent expected, given the business’s long association with the bank. This participant occupies very influential positions in the local business community; in consequence, not only has the bank lost a long-standing customer, it has also incurred, rightly or wrongly, a considerable amount of bad ‘word of mouth’. Since other participants also reported a degree of dissatisfaction with suppliers’ interpersonal skills, this has a number of implications. These include the banks’ management of customer relationships, in particular, the use of corporate managers (as opposed to branch managers) - who may have had no prior dealings with the individual business owner seeking finance - and for the training of such personnel. In this way, although based on a research philosophy predicated on giving the respondents ‘voice’, it is possible to identify wider and more general implications that raise issues beyond simply the perceptions of the individual respondents themselves.

CONCLUSION

Entrepreneurship research, as an emerging field of study, is characterised by considerable methodological diversity, not necessarily accompanied by an equivalent level of methodological sophistication. A number of commentators have argued that the field is still characterised by an over-reliance on naïve descriptive analyses of imprecisely articulated research questions based on samples of convenience. Onto this has been grafted an increasingly sophisticated and more rigorously specified multivariate quantitative analysis oriented to hypothesis testing and theory development. However, the field as a whole still shows very few examples of thorough rigorous and robust qualitative analysis. This is particularly the case for research into issues such as gender and entrepreneurship, where the nature of the object of study itself requires a systematic reconsideration of issues of research philosophy, design and method (Ahl, 2006).

In this paper we have responded to recent calls for more and better qualitative research in entrepreneurship by elaborating in detail the justification for, and procedures followed in, such research. Using the example of a recent study employing critical incident technique, we have demonstrated that with due care and attention qualitative research is capable of producing a rich set of data through which respondents’ experiences, perceptions and beliefs may be accessed. This allows both depth of understanding and detail of illustration. As demonstrated, the adoption of such an approach potentially can add significantly to our understanding of entrepreneurial behaviour.

Our discussion has also been set within an argument that the real issue concerning choice of methodology in entrepreneurship is not, as conventionally represented, that between qualitative and quantitative research, in which it appears that in the face of the growing hegemony of quantitative research methods qualitative research and qualitative researchers are fighting a rearguard action in the search for legitimacy and recognition. It is, rather, the more fundamental choice between foundationalist and non-foundationalist perspectives. We have argued in this paper for non-foundationalism, and, following Amis & Silk (2008) and others, have argued that as all observation is theory-laden, and in the consequent absence of external reference points against which to compare research design, research execution and the data themselves, the issue of quality can only be addressed by viewing quality as intrinsic to the research design: “it becomes internalized within the underlying research philosophy and orientation rather than being something to be ‘tested’ at the completion … or during … the research” (Amis & Silk 2008, p. 466).

Law (2004) has recently taken these issues further: his starting point is that methods do not just describe social realities but also help create them: “we too have our instruments of research. We too reflect on and work within the obdurate realities produced by the hinterland of those instruments” (p.39). (See also Hacking, 1990; Porter, 1995). In other words, the hinterland of methods enacts realities (Latour and Woolgar, 1986) and those realities in turn “enact the conditions of possibility of further research” (p.38). Accordingly, if realities are enacted then many of the methodological certainties of the social (and natural) sciences are eroded. In the development of an ‘ontological methodology’ (Law 2004, p.154) the procedural issue is how to conduct research studies well. What does it mean, for example, to investigate well the experiences of female entrepreneurs seeking finance? To seek answers to questions such as ‘why?’ ‘how?’ and ‘how was the experience?’ The outcome of the methods appropriate to answering such questions is to arrive at particular conclusions in particular locations for particular studies: in other words, “we are left with situated enactments and sets of partial connections, and it is to those that we owe our heterogeneous responsibilities” (Law p. 155).
The implication for entrepreneurship research is not to throw out traditional methods – the so-called standard, often quantitative, research methods which have been instrumentally effective in a number of domains including the social sciences. Rather we need to adopt methods more attuned to the research context itself (Davidsson 2003). The challenge is to recognise that the hegemony of the traditional approach to research is neither absolute nor desirable. Such methods are, in practice, “badly adapted to the study of the ephemeral, the indefinite and the irregular” (Law 2004, p. 4) and their application in such contexts is likely to be ineffective. These are the very characteristics of entrepreneurship research that have in the customary quantitative versus qualitative debate been held to justify, if not require, the adoption of qualitative methods (Neergaard & Ulhøi, 2007).

In this paper we have begun a dialogue about reconsidering the nature and purpose of research methodology in entrepreneurship. Our focus has deliberately been on the articulation of the issues involved in establishing and signalling quality and rigor in qualitative entrepreneurship research, but this raises more wide-ranging questions. From a non-foundationalist perspective we conclude that quality has to be established, not through some ex-post assessment of the truthfulness of the research findings (and their correspondence with the ‘facts’), but intrinsically through the design and execution of the research itself. More importantly, our argument has been that the distinction between quantitative and qualitative methods disguises a more important distinction between foundationalist and non-foundationalist research. We need, as Law (2004) concludes, to ‘discover ways of making methods without accompanying imperialisms’ (p.15).

REFERENCES


