

AND07318

Accessing Teachers' Views on their Practice: Interviews using Mixed Methods

Melody Anderson Dr. Peter Ferguson

Faculty of Education

The University of Melbourne

Paper presented at the annual conference of the Australian Association for Research in Education,

Fremantle, Nov 25th -29th, 2007

Abstract:

This paper considers the contribution of a range of methods employed in a study to determine practitioner constructions of pedagogy in Victoria. The study crossed three curriculum domains, Thinking, ICT and Science. The broad aim of the study was to see how teachers constructed pedagogical meaning and how this was influenced by the domain within which they operated. Data was collected in three ways, individual face-to-face interviews; domain specific focus group discussions and individual electronic responses. Each approach resulted in subtly different perspectives of the issue under consideration. Analysis suggests that, in part at least, the data was influenced by the mode of communication. This paper considers the different modes of data collection within this study and identifies relationships between the mode used and the detail within the data collected. The paper will be of use to researchers intending to conduct research into teachers' articulation of their practice to help them refine data collection methods.

Introduction and background:

The data used to compile this paper was collected as part of a study design to investigate pedagogical practices specific to three domains within the Victorian Essential Learning Standards (Victorian Curriculum and Assessment Authority, 2007). Linked to the VELS curriculum reforms are also strategies associated with pedagogical improvement (State of Victoria, 2004; 2007). This particular study focused on pedagogy and explored pedagogical knowledge particular to the domains of Science, ICT and Thinking as well as pedagogical knowledge generally. Data was collected from teachers, teacher education academics and department support staff whose teaching or other work has a focus

AND07318

within one of these domains. Data was analysed using qualitative methods to determine emergent themes, domain common conceptions and practices of pedagogy as well as domain specific ones.

However, this paper will not report upon the overall study outcomes. Rather, it will focus on the data collection methods employed and variations in information gained from various methods.

Although participants were drawn from across the three domains, the overall sample size was not large and differing data gathering techniques were employed within each domain group. Within each group data was collected from individual interviews, focus group discussion/interviews and electronically by use of email correspondence/interviews. All methods used the same general interview schedule questions and were conducted by the same researcher, however, one thing that emerged from the data set was subtle differences in responses attributable to data gathering methods. This paper considers these differences with an intention of providing valuable information for researchers who may be considering employing mixed data gathering methods or choosing one method over another for a specific research purpose.

Methodological Literature

The study was essentially a qualitative sampling at micro level and hence generalisations postulated are speculative of the broader teaching community. Considering the nature of the research topic it was felt that methods encapsulating human interaction and expressive voice in the form of interview response and anecdotal narrative would yield rich data. Eisner (1998, p 36) states, 'The historical antecedents of a context provide a background against which particular episodes acquire meaning.' Historical narrative served to contextualise responses within settings and to assist the perspective of the research. 'The purposive sampling procedure decreases the generalisability of findings but increases the depth of understanding of the phenomena.' (DE&T, 2006 p.9). Stake (1995) refers to 'petite' and 'grande' generalisations being extended to the wider population (cited in Bassey, 1998) and understandably it is a limitation of this study and of research in general. It is further argued by Gill (1996 p.39) that

AND07318

qualitative methods do not 'constitute analysis' and are not 'properly an academic endeavour.' Conversely, she refers to the expression 'Let the data speak for themselves' in reference to quantitative research and laments that it never does.

Interviews

The interview is a 'purposeful conversation' between two people (or more) with the explicit purpose of one being to gain information from the other. (Bogdan & Biklen: 2003). Data collected from this 'direct verbal interaction of individuals' (Cohen & Manion, 1994:272) is cumulative in that each interview is compared and contrasted against the component interviews of the study and hence the resultant findings exceed the sum of the parts. Substantial variations between respondents answers to the same question can be attributed to the influence of the researcher and adversely affect the reliability of the study (Charles, 1998 p.40). As opposed to quantitative methods of measurement the narrative voices of the subjects give access to 'knowledge, ideas, story-telling, self-presentation and linguistic exchanges within a given cultural context' (Barbour & Kitzinger, 1998 p.5 cited in Williams & Katz, 2001). Researchers caution us of inherent faults within the narrative as a 'highly individualised way of seeing' that may not be representative of the 'broader social context' (Gill, 1996).

Focus Group Interviews

Literature suggests that there are seemingly many and varied definitions and attitudes towards the focus groups as a measure of qualitative research. The purpose is to 'promote a comfortable atmosphere of disclosure' (Kruger & Casey, 2000 cited in Williams & Katz, 2001). The focus group consists of a small group of individuals demographically selected as representative of the larger population, formed for the purpose of examination of opinions and feelings revealed during discourse around and about a given issue without seeking or needing resolution.

Prior to the 1990's the focus group suffered a lack of status and was not valued highly as a qualitative

AND07318

research tool being dismissed as within the domain of 'vulgar market research,' (Berg, 1995). A relatively recent turnabout of these traditional views has seen the focus group accepted as 'part of the methodological toolkit' (Barbour & Kitzinger, 1998).

Recent research into the role of groups in decision making highlight both the advantages of the interactive group discussion in terms of extending and building upon individual thinking, but also warns of potential pitfalls resulting from dominance of individuals (often designated experts) or the diminishing of the quality of individual ideas in an effort to gain group consensus. Some of the same research does, however, highlight the value of 'group think' if individual viewpoints are not overruled or lost within the dynamic (Surowiecki, 2005).

Skilled moderation is required, conducted by a confident facilitator who is not intimidated by the task of group management. They must attend carefully, direct questions inclusively and maintain the levels of 'synergy, snowballing, stimulation and spontaneity' generated by the group dynamic. (Catterall & MacLaran, (1997).

Electronic Interviews

Electronic interviewing techniques offer many advantages over more traditional means of data collection. Both researchers and respondents do not have to battle the usual time, space and financial constraints inherent in other data collection methods. Although being a seemingly unobtrusive means by which voluminous data that is already accurately and conveniently transcribed may be messaged from within comfortable confines, experts caution us of 'inherent weaknesses in it's validity as a research method' (Selwyn & Robson, 1998).

Notwithstanding the convenience, speed and efficiency of the dialogue the 'asynchronous' nature of the dialogue and 'a certain ephemerality' (Selwyn & Robson, 1998) of responses are thought to reduce

AND07318

effectiveness. There is a seeming transcendence of all power relativity and traditional researcher bias as the context facilitates a 'non-coercive and anti-hierarchical dialogue.....characterised by equality of opportunity and reciprocity in roles assumed by participants' (Boschier 1990, p.51 cited in Selwyn & Robson, 1998).

With consideration of the standard written email response (as used in this study) the vast amount of information that is communicated non-verbally is not available for analysis electronically. 'Netiquette makes clumsy attempts...with emoticons' (Selwyn & Robson, 1998) but it is acknowledged that there are substantial limitations to the transfer of data in the form of tacit and emotional response. New methods involving the use of webcams and video for visual transmission do allow this additional data to be accessed for analysis.

The technological phenomena itself poses a constraint in that it precludes a percentage of the sample population by disparate use of electronic media, creating a 'clear social class bias' (Babbie, 1992 cited in Selwyn & Robson, 1998). It is also contended that attempts to gain data by electronic methods may simply be ignored or deleted at the other end as recipients are already overwhelmed by copious emails and junk mail (Berge & Collins, 1995 cited in Selwyn & Robson, 1998). Provision of anonymity and confidentiality is compromised when potential participants do respond as they are immediately able to be identified and traced.

Details of this study

As mentioned within the introduction, the study employed a range of data gathering methods utilizing the same question schedule. The overall sample size was 47 participants across three learning domains (Thinking, Science and ICT). Some were interviewed using an individual face to face method, some participated within domain specific focus group discussions and a third, smaller group were 'interviewed' by using the same question schedule through personal email correspondence. Individual

AND07318

interviews were conducted at the workplace of the participant and predominantly within the comfort of their own office. Focus group interviews were conducted in conference rooms at a school that was the workplace of at least one participant and central to others. The study was small sample because the intention was to gain a deeper understanding of individual constructions of pedagogy rather than any generalisable cross-sectional data. Consistent with this, all participants were invited because they had a known interest in the issue that was being investigated. Some were nominated by the study reference group and some self-selected once approached and upon explanation of the research purposes. The final participants were a mix of teachers; primary, middle years and secondary, curriculum leaders, Department of Education and Training personnel, university-based teacher educators and professional association representatives within each of the three domains identified.

All interviews (group, individual and electronic) were built around the following question schedule:

1. What is your background in this domain?
2. What do you understand by the word 'pedagogy'?
3. What unique contribution does this domain have to make in the education of students?
4. How are your understandings of pedagogy influenced by your domain?
5. What are your understandings of pedagogical content knowledge in this domain?
6. What is the relationship between assessment, pedagogy and the domain?
7. What is the relationship between VELs, pedagogy and the domain?
8. What is the relationship between PoLT, pedagogy and the domain?
9. What is 'best practice' in this domain?
10. What are your recommendations for building capacity in pedagogical content knowledge?

Each domain had one focus group interview as well as a number of individual interviews. All spoken interviews were audio taped and transcribed. Focus group interviews were approximately one hour in length while the individual interviews varied but were shorter in length, typically 20- 30 minutes

AND07318

duration. The standardised open-ended question format was used in both the individual and focus group interviews to maximise consistency, comparability of responses, and added to the transparency of the instrumentation (Patton 1980). The interview questions were also trialed with a small group of lecture/teaching staff at the University of Melbourne to identify possible misinterpretation, for issues of clarity, to eliminate jargon as much as possible and to provide feedback on technique to the researcher before any data collection interviews were conducted.

Of course, with such a small sample and a study designed to investigate individual constructions variation in data was not only expected, but planned for. However, beyond the anticipated differences there also emerged some differences in data quality and detail linked to the data collection method employed.

Methods and Data Variations

Individual Interviews

Some interviewees displayed a tendency to align themselves with a particular agenda regardless of the question or managed to reframe the question in such a way as to facilitate expression of areas of self interest and this dominated interview themes. Opportunities were taken to promote and extol the virtues of books, resources and commercial programs where they may be a vested interest. To paraphrase a participant who was discussing a commercial program... 'But it's got a little fault in it and nobody's thought critically about whether or not it's done the job. Nobody's said, 'Is it out of date?' Except us - because we've redeveloped it.' Similarly another agenda was present when asked about pedagogy documentation.... 'It's probably written as well as you could at the moment. Things change. I don't think they change as much.....as a lot of people who don't know what they're talking about think.'

AND07318

There was considerably more time and opportunity for a theme or issue to be clarified and elaborated upon without interception of train of thought. Participants could fully explore notions and ‘think out loud’ to describe experiences, express feelings and construct summary points of view. Silent intervals could remain silent as participants consolidated thought processes to verbalise positions and beliefs. In a group situation these pauses would be seen as opportunities for others to either regain the floor or perhaps to offer assistance in extracting the other’s opinion.

At times it was necessary to restate questions or to reframe them contextually in order to prompt a response or to maintain impetus. Perhaps this was due to a need to clarify what was being asked or an inability to articulate responses without further prompting. During one interview a question asking about what might constitute best teaching practice had been reframed three times. The individual’s response was... ‘I was going to say...I feel it being different. I mean, you know, best practice is going to vary enormously, depending on the circumstances, I suppose that’s part of our...It’s a challenging question!’

Some participants had little detail to offer and might have been more comfortable and therefore made greater contribution within a group setting. When asked about their understandings of the word ‘pedagogy’ participants frequently expressed difficulty in articulating definitions. Comments such as ‘I think it’s a hard word to pin down’ ... ‘I find that a very slippery word and I’m not entirely sure what it means’ ...and... ‘I’ve a very weak grasp on that word’, were not uncommon. When one participant was asked about the unique contribution the domain made to the education of students. The response was... ‘I’m really floundering with this one. Is this a question about why we need it or.....?’ It was evident during the course of the interview that this particular interviewee lacked confidence and/or the ability to articulate understandings and perhaps would have been more comfortable in a group situation.

AND07318

Some questions gained a great deal of information in response and some gained little response at all. This was not necessarily a reflection upon the degree of expertise of the participant. There were instances of highly informative succinct response but also there were convoluted meanderings that yielded little upon analysis.

There were occasions where the participant requested further detail as to the nature of the study and also for the interview schedule to be forwarded in advance. This was not necessarily a reflection upon the expertise of the participant, as they contributed rich data, but rather the intrusive nature of the method and its perceived adverse effect upon the confidence of respondents.

When questioned about their own practice participants generally produced rich anecdotal accounts in illustration of their stance. The social context of the interview provided a comfortable setting conducive to narrative story telling. Some participants took full advantage of the opportunity to voice their experiences and embarked upon tangents that necessitated navigation back to the original question. From the point of transcription this can be a costly exercise. The degree to which participants understated or embellished upon recollections is difficult to ascertain and highlights the personality variable within this qualitative method of data collection.

Focus Group Interviews

Focus Group methodology was employed as a means by which to gather data that reflected both shared and contrasting pedagogical constructions within respective domains. It was an important vehicle by which to elicit responses revealing and clarifying stake-holders attitudes, perceptions and recommendations. A more insightful and detailed understanding of pedagogical issues was revealed within the social context as participants engaged in diverse discussion to alternately concur and disagree and thereby produce rich data for analysis.

AND07318

Although group participants were selected experts within their respective domains a significant factor was the influence of dominant personalities which manifested and was characterised in a variety of forms. There were in all group interviews perceived hierarchical differentiations of either power, age, experience, expertise that appeared to influence interview participants as well as possible division between teaching sectors. This is revealed by responses such as, 'Yeah I know what you're saying. In primary we do have to have AIM and things, but primary is a lot different.' Similarly, 'That would have to be more in secondary school. That doesn't with primary. We have more control of the class'....and... 'All comes back to blaming the tertiary sector, doesn't it?' One participant who made the briefest of contributions introduced herself to the group with, 'I have a Prep/one and this is my 3rd year out so I'm still relatively new to it all.' She confessed afterwards to feeling too inexperienced for her comments to be valued and to being intimidated in the company of others whom she perceived to be more powerful and influential.

Networks existing outside the room were still in evidence during the interview as participants affiliated themselves with preferred constructs of the domain. Spokespeople for a topic aligned themselves with themes outside the question schedule. Secondary teachers were united as they digressed with...'it's because we've become driven by the outcomes at the end. Like when we get the VCE results and you have to get this and that'....and...'if you read what kids do, go by the VCE results, you would teach them ways of summarizing material at the end of a class'...and...'it's all very good but at the end of the day, The Age publishes their VCE results and there is that, there is that pressure to perform on an exam and data is available'.

By virtue of their selection as 'experts' in their field some individuals seemed to be empowered to tell their stories and thereby generate rich and diverse data. Dominant personalities were seemingly further empowered to override the voices of others and/or contaminate another participant's views. They afforded themselves more than their time allocation and effectively minimised important contributions

AND07318

from other more reserved personalities. Dominant individuals still engaged in personal narrative of their own practice albeit in an abbreviated fashion due to time constraints.

In two of the three focus groups in the study more reserved participants did not volunteer responses, only contributing very briefly when directly called upon. These participants may have been uncomfortable in a group setting and nervous about speaking in front of others. Participants may not wish to reveal their stance for fear of opposition or lack the necessary repartee to respond to perceived challenges.

In some instances the role of the venue clearly led to greater confidence by participants who were on 'home turf' and this familiarity manifested as dominance. Alternatively, at one focus group the 'home' participant had relatively little to contribute although being a very experienced domain coordinator and facilitator of professional development for peers. Perhaps other existent hierarchies were at work here.

Participants who were seemingly more reticent gained momentum to speak out if others' views were aligned with their own. If two had a shared perspective or experience they then tended to be more vocal and dominate as a pair. Two particular teachers who were acquainted had a shared interest and had both been trained to deliver professional development in the area of philosophy, 'I'm really happy now that our schools have decided they're going to do this and it's going to be philosophy and we're going to do it in this way'. Numerous comments from both respondents reflected their personal preference for this aspect of the domain.

There was greater breadth of information as the group dynamic allowed information to be bounced to and fro and align with themes from outside the question schedule. Diversity of response was not fragmented but rather synergised within the central theme. Individuals were in agreement at times but

AND07318

there was not necessarily consensus as exemplified in statements such as, ‘‘I’ll have to agree to some aspects with what ... was saying because I think philosophical enquiry is a very strong way to developing students thinkingI don’t know your name sorry... I think there has been an error in that...’ Similarly there were comments such as ‘Going back to something that... said. I’m not sure if you misunderstood me. Well, I think I was in agreement. I think?’ Also partial agreement took the form of, ‘I agree with what you say... in essence, but at the end of the day’.

In a relatively short time interval a wide range of diverse responses were elicited at the one interview. Issues or questions that may present difficulty within an individual interview and where prolonged silences are observed as participants grapple to articulate understandings were overcome as group members worked together to construct meaning. During one focus group the response was preceded with, ‘I don’t know how I’m going to articulate this, so why don’t you bear with me for a second, it’s still going through my brain.’ The multiple perspectives of others assisted with recollection and prompted further responses whilst also providing reassurance for individuals to continue when there was acknowledgement by the group. The impact of researcher bias was considerably lessened as participants framed questions for each other within the scheduled questions and the role of the researcher was reduced.

Selection of conveniently located venues that were easily accessible to all participants was not problematic in this study as it was generously hosted by participants within school settings. This may have contributed, however, to the earlier mentioned hierarchical concerns. Busy schedules, travel, refreshments, casual replacement teacher costs and the setting up of group recording equipment were all practical considerations that needed to be accommodated.

During transcription it was often difficult to extract individual views. Statements can be wrongly attributed during transcription if names are not constantly used in the discourse and voice recognition is

AND07318

relied upon as a secondary means of identification. The process of transcription itself is hindered when participants speak over each other as well other usual hurdles that may obscure clarity when recording.

Electronic Interviews

Electronic data methods are certainly more efficient in terms of pragmatic and logistic constraints and hence there was a certain 'ease' inherent to this form of data collection. Transcription of interviews was not necessary and this was therefore very time and cost efficient. Geographical location, time allocation and setting of the interview were non-issues. Electronic interviews for this study were literally at the press of a button. There are no time constraints upon either party as the interview schedule is simply sent into cyberspace to be returned within a certain time and at the participants' convenience.

There was a considerable interval before emailed responses arrived and hence ample reflection time prior to the answering of each and every question. Responses tended to be more coherently structured therefore assisting analysis. Conversely there were no gaps, pauses or opportunities to view the thinking aloud that informed the response or emotions surrounding them. The nature of spontaneous response can be a rich source of data for analysis and in this study the interview was not done online. Even with instantaneous dialogue it can be laborious to type responses that can also be deleted and reframed, hence negating their spontaneity.

The degree to which individuals clearly articulated their views in written form was also a determinant of the richness of data to be analysed. This email statement is quite generalised and in need of further clarification. 'Learning takes place most successfully at the point of need. Understanding and expertise with ICT tools will follow naturally'. Subtlety and nuance was difficult to interpret without the accompanying gestures, inflections, body language and facial expressions that communicate knowledge in face-to-face interviews.

AND07318

There was a seemingly limited opportunity to fluently re-question or to elicit further responses after completion of the schedule as with a face-to-face interview. When responding to questions on the relationship between pedagogy and the curriculum within relevant domain the email response was ...'I'm not quite sure of the meaning of this question. Is this to do with the nature of ICT being an Interdisciplinary subject? If so, I think my philosophy comes across in the answers to the other questions. (Let me know if you want me to clarify this).'

It becomes a more arduous task if re-questioning of any magnitude becomes necessary.

Conclusions and Recommendations

There are many factors to consider when deciding upon research methods to be employed for any study. Within the various methods applicable to a qualitative investigation there are inherent qualities that may either enhance or detract from the benefits of their use. Much deliberation is required before selecting participants for individual interviews. Recognised expertise is one thing but the respondent's ability to articulate this expertise is quite another issue. Personality characteristics may impede the quantity and the richness of the data. Although they may be extremely proficient within their given field some participants lack confidence during interview situations. To alleviate this somewhat precarious anomaly it may be prudent in some instances to forward the interview schedule in advance to eliminate fear of the unknown. Responses may be formulated in advance and with increased confidence they may then be more coherently articulated at interview. A skilled interviewer will be more able to establish rapport and put participants at ease. Careful questioning techniques and the ability to maintain momentum are required as well as skilful maneuvering at times to stay on track.

The elimination of dominant hierarchies during focus group interviews may not be entirely possible but their effect may be minimised by careful selection processes. The researcher must consider known affiliations, connections and commercial interests that may align participants in such a way as to skew data. Elements such as gender, ethnicity, age, experience and power relations may enhance or detract

AND07318

from the richness of the discourse. The group may be more open and comfortable if there is perceived homogeneity. This may also entail careful planning of a venue that is 'neutral territory' in terms of geographical location and connectedness to any of the focus group personalities or their affiliations.

Electronic interviewing as a research tool has considerable advantages in terms of convenience for all concerned but careful deliberation is necessitated as to whether it suits the purpose of the study.

Unobtrusive access and distribution to a wide sampling is a relatively simplistic exercise that overcomes chronological and geographical constraints. The option of instantaneous discourse and simultaneous transcription makes it a seemingly very attractive prospect. The previously mentioned limitations of population bias, lack of insight into thought processes and feelings, generality of response and the absence of the 'human' factor should be measured carefully against the objectives of the study when evaluating email as an effective research tool.

AND07318

References

- Babbie, E. (1992) *The Practice of Social Research* (6th ed.) Belmont, California: Wadsworth.
- Barbour, R., & Kitzinger, J. (1998). *Developing Focus Group Research*. London: Sage
- Bassey, M. (1998) *Fuzzy Generalisation: An Approach to Building Educational Theory* British Educational Research Association Annual Conference, Belfast
<http://www.leeds.ac.uk/educol/documents/00000801.htm> (accessed May 30, 2007)
- Berg, B. (1995) *Qualitative Research Methods for the Social Sciences* (2nd ed.). Boston: Allyn & Bacon.
- Boshier, R. (1990) 'Socio-psychological Factors in Electronic Networking' International Journal of Lifelong Education, Vol 9 No 1
- Bogdan, R & Biklen, S. (2003) *Qualitative Research for Education (4th Edition)*. Boston: Allyn & Bacon.
- Catterall, M. & Maclaran, P. (1997) *Focus Group Data and Qualitative Analysis*. Sociological Research. [On-line]. Available: <http://www.socresoline.org.uk/2/1/6.html>. (accessed May 23 2007)
- Charles, C.M. (1998) *Introduction to Educational Research*. Third Edition. New York, Longman.
- Cohen, L & Manion, L. (1994) *Research Methods in Education*, London, RoutledgeFalmer
- Department of Education and Training. (2006). *Investigating Pedagogical Content Knowledge in Thinking, ICT and Science in Victoria: Intertwining Knowledge and Practice*, Office of Learning and Teaching, Melbourne.
- Eisner, E. (1998). *The Enlightened Eye: Qualitative Inquiry and the Enhancement of Educational Practice*, Prentice-Hall, Englewood Cliffs, NJ,
- Gill, J. (1996) *Beyond the Baby and the Bathwater: Reflections on Current Debates in Educational Research*. Australian Educational Researcher. Vol 23.No.1
- Krueger, R., & Casey, M. (2000). *Focus Groups: A Practical Guide for Applied Research* (3rd Ed.). Newbury Park, CA: Sage.
- Patton, M. (1990). *Qualitative Evaluation methods*: London, Sage
- Selwyn, N. & Robson, K. *Using E-mail as a Research Tool*. University of Surrey. *Social Research Update, Issue 2*. <http://sru.soc.surrey.ac.uk/ARU21.html> (accessed May, 28 2007)
- Stake R E (1995) *The Art of Case Study Research*, London: Sage
- State of Victoria (Department of Education and Training). (2004). *Blueprint for Government Schools*. <http://www.sofweb.vic.edu.au/blueprint/> (accessed April 3 2007)
- State of Victoria (Department of Education and Training). (2007). *Principles of learning and Teaching P-12 Initiative*. <http://www.sofweb.vic.edu.au/pedagogy/plt/index.htm> (accessed April 3 2007)

Surowiecki, J. (2005). *The Wisdom of Crowds*. Abacus. London

Victorian Curriculum and Assessment Authority (2007). *Victorian Essential Learning Website*.
<http://vels.vcaa.vic.edu.au/> (accessed April 3, 2007)

Williams, A & Katz, L. (2001) *The Use of Focus Group Methodology in Education: some Theoretical and Practical Considerations*. International Electronic Journal for Leadership in Learning. Vol.5 No.3, viewed 25 May, 2007 <http://www.ucalgary.ca/-ejll/volume5/katz.html>