

Learning Log Analysis: Analysing Data That Record Reflection, Experience and Learning.

Tim Friesner
Senior Lecturer in Marketing
Business and Management
University College Chichester
College Lane
Chichester
West Sussex
PO19 6PE
t.friesner@ucc.ac.uk

Mike Hart
Professor of Business and Informatics
Business Management Group
University College Winchester
Sparkford Road
Winchester
SO22 4NR
mike.hart@wkac.ac.uk

Abstract

This research project used learning logs as a research instrument to gather data on the reflection, experience and learning of a sample of marketing managers from British theatres. This paper introduces *Learning Log Analysis* as an analytical approach to help researchers to interpret findings. For this research project Learning Log Analysis employs content analysis, case study analysis and narrative and storytelling analysis. This paper aims merely to introduce the approach. It in no way attempts to be a conclusive formula, and encourages further research and dialogue.

Keywords

Learning logs, marketing planning, content analysis, case study analysis, narrative and storytelling analysis.

1.0 Introduction

This paper addresses learning logs as a method for gathering data. Learning logs were used to record the marketing planning behaviour of six marketing managers working for six different British theatres. The academic literature on marketing planning has little research into the nature of reflection and learning. There is therefore, an opportunity to investigate how marketing managers learn as they plan for marketing. An initial link between marketing planning and experiential learning was made by Lancaster and Waddelow (1998), where Kolb's Learning Cycle (1984) was used to explain the nature of marketing planning as it took place in SME's. This paper takes advantage of the opportunity to broaden the research into other sizes of organisation from a variety of market sectors (see Figure 2). The paper investigates marketing planning activity undertaken in six British theatres. Often, marketing planning is structured around a series of steps (MacDonald 2002) where analysis of the business environment is undertaken, objectives are set, strategies and tactics are created and controls are set in place. This research took a more open view of the marketing planning that occurs in reality, away from a written marketing plan. It

measures marketing planning in relation to how marketing managers learn as they plan, how they reflect upon learning as they plan, and their experiences of marketing planning. In order to do this, a research method was needed that could record marketing planning, learning, reflection and experience over time. Learning logs were used as a research instrument.

2.0 Research Questions

The learning log research aimed to investigate three questions, as follows:

1. What is the relationship between marketing planning and learning?
2. How should learning logs be used as a research method to measure the relationship between marketing planning and learning?
3. How should learning logs be analysed?

3.0 Research Method

Learning logs are most often used as a method of assessment (Cottrell 2003, Moon 1999) that records experiential learning rather than a research method. However there are precedents for using learning logs as a research instrument (Barclay 1996, Clandinin and Connelly 1991). Previous research extends only to the fields of Human Resource Management (HRM) and management development, and the potential to use the approach in other fields of business research is relatively untapped. There is no benchmark for analysing or interpreting data captured by the learning logs. Therefore the learning log research approach adapts and extends the earlier work of Barclay (1996). This new research had two distinct phases. Phase one was a preparation phase.

HRM and Management Development	Marketing Planning
What do I do well in my current job?	Summarise how you conduct marketing planning
What could I do better?	Summarise current your current marketing activity: <ol style="list-style-type: none"> a) Complete a SWOT analysis b) Summarise your organisation's aim(s) for the next 12 months c) Summarise the key marketing strategies of your organisation d) Summarise the main marketing tactics of your organisation
Where and in what roles do I see my future?	
What new knowledge and/or skills will I need?	
What support might I need from colleagues?	
What constraints of problems do I foresee?	
How could these be minimised?	
What resources are available to me?	
Table 1 Preparation Phase – A Comparison between the log stages of HRM and Management Development and Marketing Planning (based upon Barclay 1996)	

The preparation phase is important since it takes a snapshot of the respondent's opinion on the current state of marketing planning. Specifically the respondent has the opportunity to describe his or her plan. The marketing manager offers his or her own qualitative judgement on the current situation. This is then developed into a SWOT analysis that records the current internal and external situation, based upon the respondent's own qualitative judgement. The respondent then states his or her organisation's marketing aim(s). Note that aims are offered over objectives. It is accepted that aims and goals tend to be broader than objectives. However SMART objectives may not be in common use by respondents whom, for example, did not have a written or prepared marketing plan. Therefore aims replace SMART objectives. The respondent then states key marketing strategies that they foresee will achieve their aim(s). The key marketing tactics that support marketing strategies are recorded. This is the preparation phase. The second phase is the action plan phase.

HRM and Management Development	Marketing Planning
Decide upon an action plan which considers: <ul style="list-style-type: none"> a) The objectives you aim to achieve b) The activities which will allow you to develop the skills identified c) Developing contacts with others that may help d) An appreciation of any constraints e) The time by which you will have achieved your objectives f) Carry out and complete one activity per month (what did I do? What did I get from doing it? What will I do differently/better as a result?) 	The Marketing Planning Reflective Journal considers: <ul style="list-style-type: none"> a) The aim(s) that you wish to achieve b) Marketing planning and decision making c) Carry out and complete one journal entry per week, or on the occurrence of a 'significant event.'
Each log entry should include: <ul style="list-style-type: none"> a) Identify the learning/development outcomes b) Outline the process involved c) Analyse the learning and explore any difficulties d) Evaluate how far the objectives were achieved e) Identify areas for future developments 	Each log entry should include: <ul style="list-style-type: none"> a) The aim (s) of your organisation (from Preparation Phase above) b) Action taken to achieve goal/aim(s) c) Evaluation of performance so far d) Next steps (based on a reflection upon a, b and c)
The log should include an introduction and summary	The log should include a final reflection on the marketing planning process.
Table 2 Action Plan Phase - A Comparison between the log stages of HRM and Management Development and Marketing Planning (based upon Barclay 1996)	

The action plan phase records marketing planning over a period of time (8 weeks in this instance). Log entries are recorded over the marketing planning period using the same structured stages (as described in *Table 2*). The aim(s) is restated from the preparation phase. The respondent records what has been done during this section of the marketing planning period to achieve the aim(s). The respondent reflects upon

performance. Reflection considers how well the marketing strategies and tactics are meeting the aim(s).

Once a marketing manager agreed to participate in the research, they were asked to offer contextual data about themselves and their theatre. The data was recorded by respondents on survey sheets based upon the marketing planning preparation phase represented in *Table 1*. Contextual data requested about theatres included its location, its seating capacity, and whether it was a producing or staging theatre (or both). Seven marketing managers from seven British theatres were approached to participate in this longitudinal research, and their agreement was gained. The responses would generate the equivalent in terms of volume, wordage and commitment as six case studies (i.e. 3,000 to 5,000 words in each log). The 8 week logging period ran between March and May 2004, with respondents beginning when it best suited them. All communications with respondents emphasised the academic value of the data. All respondents were promised confidentiality. The research does impose upon the time of the respondent, as does all longitudinal work. Initial documents were posted, and then e-mailed, to the marketing managers and advice was offered on how to complete the documentation. A supporting website was explained and participants were encouraged to contact the researcher if advice and guidance were needed. Stamped self-addressed envelopes were offered to respondents that needed them, otherwise completed surveys and log entries were e-mailed to the researcher as and when they were complete. 7 of the marketing managers returned the early preparation surveys. Then 6 respondents began to log. One respondent withdrew before logging due to bereavement. The respondents generated rich data that forms the basis of detailed analysis. Six detailed case studies were generated as a result of six complete logs. The completed survey sheets and learning logs were analysed. Since the learning log method is relatively untested, there is little in the way of precedent for analysing data. For this reason, a variety of analytical methods were used to interpret the logs namely content analysis, case study analysis and narrative and story telling analysis. A content analysis was undertaken on all textual data i.e. initial surveys into the current stages of the annual marketing plan, SWOT analyses, marketing aims, strategies and tactics, 8 weeks of log entries, and final reflections on the logging process and its value to individuals when marketing planning. Then a detailed case study analysis was conducted on a case-by-case basis, and finally a narrative and story telling analysis was undertaken on the reflections from the log entries.

4.0 Analysis of Learning Log Data

Three approaches were used to interpret data from the learning logs. Since this method is untried in the marketing context, no presuppositions were made regarding the potential success or otherwise of each interpretive approach. It is also recognised here that there is a huge literature that supports the three methods used i.e. too large a body of knowledge to be acknowledged in this short paper. The three approaches selected were content analysis, case study analysis and narrative and storytelling analysis. This approach is by no means conclusive but simply represents those approaches that offered the most potential based upon a literature review. The three approaches together helped to triangulate findings as depicted in *Figure 1*.

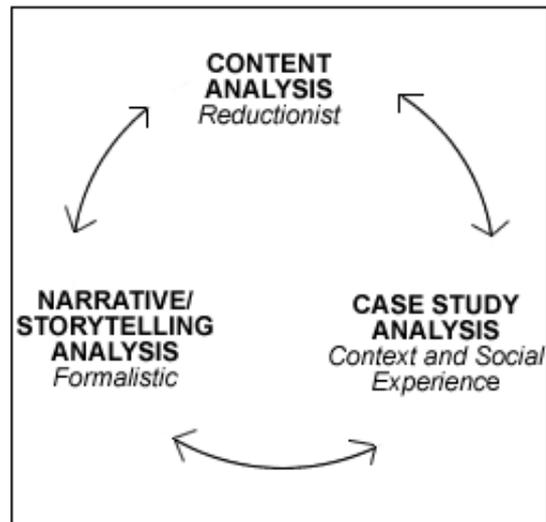


Figure 1 Three integrated approaches for interpreting data from learning logs.

5.0 The Researcher as a Participant Observer

By reading through log entries and interpreting their contents, the researchers are retelling the story in their own words. It is recognised that writing up data from the field in such a way is in itself a story. Therefore the experience of the researcher is part of the story as it is retold. In this way, the researcher is a participant observer. Those completing the logs are aware of the nature and purpose of the research, and have some contact with the researcher. A researcher has contacted them, co-opted them to take part and has offered them the option to contact him directly if assistance is needed (although the supporting website should reduce the need for direct contact). The respondents returned entries to the researcher. Therefore there is not intention to conceal or operate covertly. Although contact is made with the participants, there is no effort to build or nurture a relationship with them. Superficial contact is made. On the other hand the researcher does not stand back and 'eavesdrop.' The most similar research identity (Burgess 1984) is that of observer-as-participant, where occasional questions may be asked and advice and guidance offered.

6.0 Content Analysis

Content analysis was applied to the learning log data based upon popular approaches described in research method literature (Roberts (2000), Neuendorf (2001) and Franzosi (2004)). Provalis Research Simstat and Wordstat V4.0 were used to perform the content analysis. Data from log entries and contextual surveys were converted to MS-Word. Analysis of the data was undertaken and the results were presented in a number of forms including Key-Word-In-Context (KWIC), as well as a variety of cross tabulations. The content analysis measured words, phrases and themes. Words were counted and categorised. This showed the most popular words. KWIC placed the word in sentences where the context gives meaning to the word.

This allowed keywords to be measured across all responses, and then individual responses were compared with the totals. As with attempting to apply any empirical approach to a relatively qualitative methodology, the limitations of a small sample meant that on occasion comparing keywords generated little of any verifiable interest. However, where all logs were compared so that data appeared in greater quantities, findings tended to be more easily justified. So when a content analysis is used, the more data the better.

Keyword	Frequency	% Showed	% Processed	% Total	NB Cases	% Cases
<i>Audience</i>	5	9.8	2.3	1.6	5	71.4
<i>Established</i>	4	7.8	1.8	1.2	3	42.9
<i>Good</i>	6	11.8	2.7	1.9	3	42.9
<i>Strong</i>	3	5.9	1.4	0.9	3	42.9
<i>Car</i>	2	3.9	0.9	0.6	2	28.6
<i>Creating</i>	2	3.9	0.9	0.6	2	28.6
<i>Excellent</i>	3	5.9	1.4	0.9	2	28.6
<i>Free</i>	2	3.9	0.9	0.6	2	28.6
<i>Large</i>	2	3.9	0.9	0.6	2	28.6
<i>Local</i>	2	3.9	0.9	0.6	2	28.6
<i>Location</i>	2	3.9	0.9	0.6	2	28.6
<i>Organisations</i>	2	3.9	0.9	0.6	2	28.6
<i>Postcode</i>	2	3.9	0.9	0.6	2	28.6
<i>Season</i>	3	5.9	1.4	0.9	2	28.6
<i>Shows</i>	2	3.9	0.9	0.6	2	28.6
<i>Staff</i>	3	5.9	1.4	0.9	2	28.6
<i>Theatre</i>	4	7.8	1.8	1.2	2	28.6
<i>Touring</i>	2	3.9	0.9	0.6	2	28.6
Table 1 An example of Content Analysis finding - All Respondents Strengths – 2 or More Cases (KWIC)						

7.0 Case Study Analysis

Case study analysis was undertaken on the learning log data based upon commonly cited case study analysis approaches (Kulthau (1988), Yin (2002), Stake (1995), Ragin and Becker (1992) and Jaunch et al (1980)). The accounts in the log entries were analysed in greater depth. They were reviewed in much more detail in order to ascertain themes and key points for further investigation. A key factor in the selection of an appropriate research method is problem definition. Learning log analysis, in common with case study analysis, records data to answer questions of 'how' and 'why,' it has little or no behavioural control over the respondent, and it focuses upon contemporary factors. When interpreting and analysing data from case studies there are three main approaches. Yin (2002) suggested *much depends upon the investigator's own style of rigorous thinking, along with sufficient presentation of evidence and careful consideration of alternative interpretations.* So much of the interpretation is largely subjective and based upon the researcher's own type of critical thought. A second approach would be to code events to give them some empirical meaning, rather like a content analysis. A third approach would be to use a variety of more qualitative techniques, such as making a matrix of categories and placing the evidence within such categories, or tabulating the frequency of different events. All three approaches were employed to interpret the data. Case study analysis of learning logs offered a context to the reflections of the respondents. It helped the researcher to appreciate the social experience of the respondents and

allowed a deeper understanding of the data when undertaking critical thought. It also helped to keep subjective and biased perceptions of the patterns in the data to a minimum. Case study analysis allowed a much deeper understanding of the marketing managers' contexts, so it was easier to compare the similarities and dissimilarities between the six case studies. Case study analysis offered a different perspective on interpretations based solely upon content analysis.

8.0 Narrative and Storytelling Analysis

Narrative and storytelling analysis was used (Bruner (1987), Ryan (2004) and Miller (2004)). The narratives contained in the reflective logs were ethnological testimonials of real experiences. Narrative analysis considers a story as a series of sections in chronological order, and that is why it was so useful when considering entries made in a series of learning logs. The sequencing of entries that reflected upon specific goals allowed themes to emerge as the accumulation of reflection built a picture of the past, and also how at various points in time the present allowed for an interpretation of the past. The accumulation of data also allowed respondents to build a perception of the future. The narratives were accounts of personal experiences. The researchers read all logs from start to finish. Core themes were identified. Issues that influence the responses were considered and isolated wherever possible. For example the gender of the respondent that recorded the story, versus the gender of the researcher that interpreted the story were evaluated. The impact of any interaction or rapport between respondents and researchers was also considered. Elements of discourse were noted if they arose (Crossley 2000). Narrative and storytelling analysis offered the deepest analysis of all. In some ways it was most pleasurable for the researchers since they were given a rare insight into the personal perspectives on marketing by six individual marketing managers working for six different British theatres. Narrative and story telling analysis offered the most personal, in-depth understanding of the log data, and in the opinion of these researchers, proved the most valuable analysis to Learning Log Analysis.

9.0 Summary of Findings – Phase One Preparation

The results were analysed during July and August 2004. Seven marketing managers from British theatres began logging and six completed the process. All 7 marketing plans addressed marketing planning. All employed differing stages and approaches. A spread of marketing terms was found in the 'all' content analyses, and no unexpected themes were uncovered at this stage. Attention is paid to 'marketing' and 'planning,' as well as other aspects such as 'time' and the planning 'year.' All respondents included SWOT analyses. Again themes were not common to all respondents since they had differing strengths, weaknesses, opportunities and threats. Marketing aims tended to focus on 'audiences' (i.e. the customer of a theatre), 'art' (i.e. the industry of a theatre) and 'programme' (i.e. the service offered by a theatre). Marketing strategies differed with some commonalities surrounding 'outreach.' Marketing tactics generated more detailed data than aims and strategies (since there tend to be more of them in most marketing plans). These fell into one of 7 categories based upon the 7P's. 'Promotion' was by far the most prevalent tactic. The promotions mix for those theatres considered tends to focus upon direct mail, brochures, press, and the Internet. The 'physical evidence' and presence of the theatre and its box office figured in responses. The 'products' of the theatres were

their shows, productions, events and services. Place was important in terms of 'locality.' 'Pricing' varied and concessionary prices were common. 'People' and 'processes' appeared less often. 'People' were the customer service staff and players, and processes tended to centre on booking.

9.1 Summary of Findings – Phase Two Action Plan

The log entries of the marketing managers offered the deeper more insightful data. A picture was painted of a series of differing approaches to marketing planning in British theatres. Case study analysis accessed the individual nature of six marketing plans. Each case study was different in terms of the data generated. The theatres themselves were spread throughout England, with one in Scotland. The auditoria ranged from 400 to 1206 seats. The marketing managers had a varied experience of marketing management, and ages ranged from early 20's to over 40's. Some had marketing or business qualifications, but most did not. The locus of marketing planning in the theatres studied was largely operational, with some instances of strategy. This may be because the organisations themselves are mainly small or medium sized, or the reason may be that marketing managers let operations take precedence over time for strategic thought. The marketing manager usually drove marketing plans. It was agreed in most cases that individuals learnt as part of the marketing planning process, and that the characteristics of each individual influenced the marketing plan. The marketing plan as it was implemented tended to be unwritten. The marketing manager may have gone through a learning process as the logs were constructed. Learning took place as the annual marketing plan was broken down into sub-marketing plans by show, production, and event, as the marketing manager reflected on her experience and made appropriate improvements throughout the duration of the overall marketing plan. Human characteristics are in evidence.

The log gave an opportunity for marketing managers to use self-descriptive words such as 'feeling,' 'being frustrated' and 'being satisfied.' The attributes of the marketing manager have some influence on the marketing plan. Learning, experience and reflection are part of the marketing planning process. In its simplest form experiential learning takes place as marketing managers reflect on experience. The results strongly suggest that learning has taken place and this notion is supported when considered in relation to learning theories (Lewin 1951, Dewey 1938 and Kolb 1984). Continuous reflection on experience sees learning taking place in marketing managers. This is evidence of continuous personal development and education through work. The action of marketing planning generates learning (Dewey 1938).

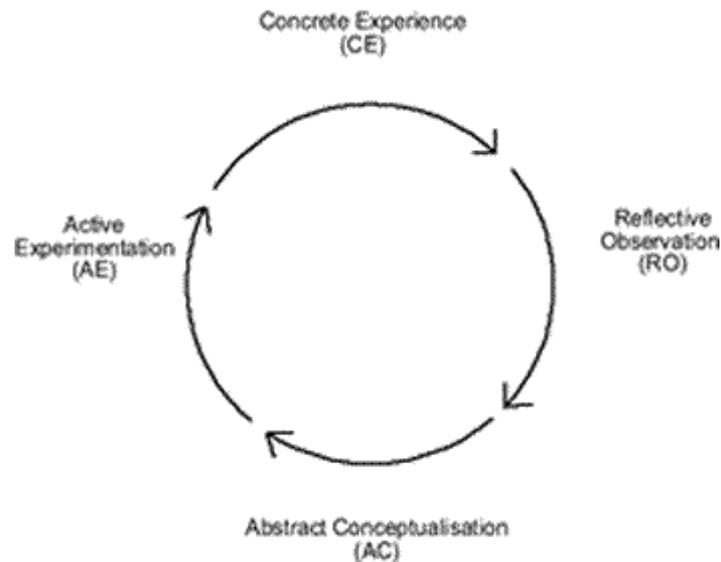


Figure 2 The Experiential Learning Cycle (Kolb 1984)

The logs captured data that broadly replicates the dialectic process that occurs between experience and concepts, and observation and action (Lewin 1951). Logs were structured in a way that replicated the experiential learning cycle depicted above in Figure 2. Marketing planning in action sees a marketing manager having an experience, reflecting on it, making improvements and then testing them out in new situations (Kolb 1984). Marketing planning in action more closely follows the cycles of learning associated with learning theories, than it does the prescribed structure of the traditional marketing planning process.

10.0 Conclusions

For this paper, a combination of content analysis, case study analysis and narrative and storytelling analysis were employed. Hence the researchers could offer a more robust interpretation of findings through the application of three methods. Such 'Learning Log Analysis' has a number of advantages and disadvantages.

10.1 Advantages

- Learning logs record data from the perspective of the participant rather than the researcher. They conform to the subjective world paradigm (Arndt 1985), and are therefore an interpretive approach.
- Logs record learning as it occurs over time.
- Learning logs can be analysed in a more objective manner, other than simply reading through them.
- The power and speed of information technology give an opportunity for large amounts of text from learning logs to be analysed in relatively short spans of time using software.
- A number of learning logs can be analysed in parallel. Therefore findings can be compared and contrasted across a broad base of responses. This adds robustness to any findings.

10.2 Disadvantages

- Often only small samples are realistic since it takes time, effort, resources and commitment to engage respondents over the period of the longitudinal research. Therefore the replication and verifiability of findings is unlikely.
- The data is rich and therefore does not tend to deliver short uncomplicated views, and subtleties are difficult to identify from the large amount of text.
- Subjectivity on the part of the researcher may distort any interpretation so that the generalisation of any findings may be misguided, and so again verification and replication would be difficult.
- They are time consuming and have an economic cost.

10.3 Further Applications of Learning Logs

Learning logs, their analysis, and their usefulness as a research method may also have other applications in the fields of business or higher education research:

- Learning logs record reflection, experience and learning as it takes place in individuals in organisations. So fields of business, other than HRM and marketing, could employ this research method or analytical approach.
- The rich data contained in student learning logs can be analysed (although permission must be gained, and confidentiality maintained depending upon the research question).

This research project does not generate a one size fits all approach to recording learning, experience and reflection with logs. Neither does it attempt to offer a problem solved view of learning log data analysis. This paper merely attempts to contemporise learning logs as a longitudinal approach for gathering rich data from individuals as it records learning, reflection and experience.

References

- Arndt, J. (1985) On making marketing science more scientific: role of orientations, paradigms, metaphors, and puzzle solving, *Journal of Marketing* Vol 49, pp18-23.
- Arndt, M. J., & Underwood, B. (1990). Learning style theory and patient education. *Journal of Continuing Education in Nursing*, 21(1), 28-31.
- Barclay, J. (1996). Learning from experience with learning logs. *Journal of Management Development*, 15(6), 28-43.
- Bruner, J (1987). Life as Narrative, *Social Research* 54: 11-32.
- Chatman, S (1978). *Story and Discourse*. Ithaca, NY: Cornell University Press.
- Clandinin, D. J. & Connelly, F. M. (1991). Narrative and story in practice and research. In D. Schon (Ed.). *The reflective turn: Case studies in and on educational practice* (pp. 258-281). New York: Teachers College Press
- Cottrell, S. (2003). *Skills for Success: The Personal Development Planning Handbook* (Palgrave Study Guides), Palgrave Macmillan
- Crossley, M. (2000). *Introducing narrative psychology. Self, trauma and the construction of meaning*. Buckingham: Open University Press.
- Franzosi, R. (2004). *From Words to Numbers: Narrative, Data and Social Science (Structural Analysis in the Social Sciences)*, Cambridge University Press.
- Jauch, R.R. et al (1980) Structured Content Analysis of Cases: a Complementary Method of Organizational Research, *Academy of Management Review* 5: pp517-26.
- Kulthau, C.C. (1988). Longitudinal Case Studies of the Information Search Process of Users of Libraries. *Library and Information Science Research* 10: 257-304.
- Kolb, D. A. (1984). *Experiential Learning: Experience as the source of learning and development*. Englewood Cliffs, N. J.: Prentice-Hall.
- Lancaster, G. and Waddelow, I. (1998) 'An Empirical Investigation into the Process of Strategic Marketing Planning in SMEs: Its Attendant Problems, and Proposals Towards a New Practical Paradigm,' *Journal of Marketing Management*, 14, 853-878.
- Lewin, K. (1951) *Field Theory in Social Sciences*, New York, Harper Row.
- McDonald, M.H.B., (2002) *Marketing Plans. How to Prepare Them: How to Use Them*, 5th ed, Butterworth-Heinemann, Oxford.
- Miller, M (2004) *Experiential Storytelling: Discovering Narrative to Communicate God's Message*, Zondervan Publishing House
- Moon, J. (1999) *Learning Journals: A Handbook for Academics, Students and Professional Development*, Routledge Falmer.

Neuendorf, K (2001). *The Content Analysis Guidebook*, Sage Publications.

Oakshott, M. (1962), *Rationalism in Politics*. London: Methuen.

Ragin, C.C. and Becker, H.S. (1992). *What is a Case study? Exploring the Foundations of Social Inquiry*. New York: Cambridge University Press.

Ryan, M (2004) *Narrative Across Media: The Languages of Storytelling*, University of Nebraska Press

Roberts, C.W. (2000) *A Conceptual Framework for Quantitative Textual Analysis, Quality and Quantity* 34 (3): pp283-91.

Stake, R.E. (1995) *The Art of Case Study Research*. Thousand Oaks CA: Sage Publications.

Yin, R.K. (2002) *Case study research: design and methods* (3rd ed), Sage Publications.