Genre and Qualitative Research Software:

The Role of 'the project' in the Post-electronic World of Qualitative Research

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The emergence of qualitative research software, while initially seen as a technical innovation, has now given rise to significant issues related to the literacy forms evolving within and from this tool. This software provides a container within which a researcher can store, organize, analyze, and develop representations of a qualitative research project. Through its hyperlinked features the software can provide linkages between diverse segments of text (written and oral) and images, as well as providing the researcher with powerful search tools for creative

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investigation of relationships among texts and their interpretations. The structure of the software has led to the development of new forms of terminology and text that are reshaping our understanding of qualitative research. In particular, the increasing use of this software raises critical questions in regard to our understanding of genres of qualitative research, specifically the role of 'the project'.

In pre-electronic qualitative research, the project is understood to be the central organizing principle behind each piece of qualitative work. In this world the project (as described by 'the question') is thought to be created and understood through multiple forms of ethnographic genre. In post-electronic qualitative research, the project moves forward to become itself a central organizing genre, like a novel, composed of many kinds of sub-genre. This paper examines the metamorphosis of the project into a form of qualitative research genre as a result of the introduction of qualitative research software, exploring the implications of this change for the practice of qualitative research.

My paper will provide an historical and theoretical discussion of the issue of genre, both as it relates to qualitative research and the development of new electronic literacies, setting the stage for readers' understanding of the definition of genre, its characteristics, and the issues that have come to the fore as genre has been problematized by the qualitative research community. For a definition of genre, I will rely upon Swales (1990), which will anchor my consideration of the ways 'the project' (an artifact of the new software) has sprung forward as a new form of genre. In this paper, I will draw upon several years of experience as an instructor of qualitative research who has sought to integrate qualitative research software into all aspects of methodological preparation. Using data drawn from my experience as an instructor of qualitative research, I will explore the issues software-based project work raises in regard to

genre in this new medium. While there are a range of software products within this class of tool, for the purposes of this paper, I will be focusing my discussion on the product named NVivo, produced by QSR International.

Genre and Qualitative Research

Genre as a feature of qualitative research has been a prime concern of the post-modern turn (Lincoln & Denzin, 1994). In search for an understanding of the representational form of their knowledge products, qualitative researchers have turned to ethnographic discussions of genre (Clifford & Marcus, 1986; Geertz, 1988; Jacobson, 1991; Van Maanen, 1988; Wolf,1992). This quest has also been fueled by reference to linguistic and literary discussion of the definition and characteristics of genre (Bakhtin, 1986; Swales, 1990), as well as sociological exploration of genre as an aspect of the production of discourse (Fairclough, 1992) and, very importantly, concerns about the issues of power and control inherent in the establishment of genre (Foucault, 1972). These queries have led to exciting new experimentation in the products of qualitative research (e.g. Barone, 2001; Roberts, 2001), but these experiments are, for most intents and purposes, situated in the classical cut-and-paste mode of qualitative research, predating the advent of the new software for qualitative research analysis. While qualitative researchers have been active in the exploration of the electronic world as a site of study (e.g. Bruce, Peyton & Batson, 1993; Hakken, 1999; Star, 1995), we are only beginning to understand the ways our own methodological practices are being shaped by these tools.

As instructors of qualitative research seek to integrate software into their methodology classes, they are confronted by the need to understand the qualities of the genres embedded in the

software and the ways students develop proficiency in these forms (Bringer, Johnston, Brackenridge, 2004; Carvajal, 2002; Davidson, 2004). Previous modes of qualitative research texts (observations, interviews, memos, classical research papers), serve as a starting point for directing that understanding, but the new hyperlinked features of the program lend themselves to literate forms that may be better described in literature about new forms of electronic literacy (Bruce, 2003; Pink, 2001).

Defining Genre

For a definition of genre, my starting point will be Swales (1990):

A genre comprises a class of communicative events, the members of which share some set of communicative purposes. The purposes are recognized by the expert members of the parent discourse community, and thereby constitute the rationale for the genre. This rationale shapes the schematic structure of the discourse and influences and constrains choice of content and style. Communicative purpose is both a privileged criterion and one that operates to keep the scope of a genre as here conceived narrowly focused on comparable rhetorical action. In addition to purpose, exemplars of a genre exhibit various patterns of similarity in terms of structure, style, content and intended audience. If all high probability expectations are realized, the exemplar will be viewed as prototypical by the parent discourse community. The genre names inherited and produced by the discourse communities and imported by others constitute valuable ethnographic communication, but typically need further validation (58).

In his discussion of this definition, Swales (1990) narrows the field down to five critical points that will serve as central to my discussion of 'the project' as it is conceived within qualitative research software. These are:

1.   A genre is a communicative event (p. 45)

2.   The principal criterial feature that turns a collection of communictive events into a genre is some shared set of communicative purposes. (p. 46)

3.   Exemplars or instances of genre vary in their typicality (49)

4.   The rational behind a genre establishes constraints on allowable contributions in terms of their content, positioning, and form (p. 52)

5.   A discourse community's nomenclature for genres is an important source of insight. (p. 54)

Swales sees genre as representative of typical or focal linguistic events within community life. The contrast would be accidental or happenstance communicative instances: these are not what genre is.   "A communicative event is here conceived of as comprising not only the discourse itself and its participants, but also the role of that discourse and the environment of its production and reception, including its historical and cultural associations" (Swales, 1990, 46).

Genre communicate goals and, thus, contain purposes that shape the communication. A key question, therefore, to ask of an example of a genre is: does it communicate the purpose effectively?

In discussing the issue of prototypicality, Swales describes the purpose of the communication as a privileged characteristic of a genre, whereas the prototypical nature of genre can be found in the "form, structure, audience expectation" (Swales, 1990, 52).

"Established members of discourse communities employ genres to realize communicatively the goals of their communities." (Swales, 1990, 52) On the other hand, beginners, that is, those who are entering the discourse community might not recognize key features or might only recognize parts of those features.

In a community of discourse, those who are closest to the center of the discussion will also be those naming the key features of the genre. They are the ones who best understand the features, their similarities, differences, and nuances, and they will be central to the description of the genre features.

Swales is quick to point out that "not all communicative events are considered instances of genre" (1990, 58). Casual conversation is not genre, but rather would be what he terms 'pre-genre'. Another important distinction that he would make is in regard to category labels, such as 'letter', which he terms a multigeneric generalization (as opposed to pre-genre). Until 'letter' becomes a kind of letter with a specific purpose (such as a 'job application letter'), 'letter' cannot be considered as genre.

In the next section, I examine the ways that Swales' definition might be applied to 'the project' in QR software using as data my experience as a researcher and teacher using NVivo.

Methodology: Coming to Know What I Know about Qualitative Research Software and the

Notion of the Project

I have long had an interest in language, literacy, and the forms and structures with which we shape our use of these critical cultural tools. As a doctoral student, the issues of genre and related concepts such as discourse community, community of practice, etc. were of great interest to me (Davidson, 1993; Davidson, 1995). In post-doctoral life I took a position in an educational leadership program in a graduate school of education and focused more of my energies on qualitative research methodology, and, until recently, I thought my connection to the topic of genre was long over. However—enter NVivo (qualitative research software), and to my surprise I found that this new technological tool was bringing forward the issue of genre all over again.

My experience with qualitative research software began with the QSR product, NUD*IST in 1997. I updated to NVivo 'daughter of NUD*IST' in 1999, when I integrated NVivo into a qualitative research methods course. To date I have taught four doctoral-level qualitative research courses that have sought to fully integrate NVivo into the fabric of the course, most recently Fall 2004, which was my most ambitious attempt at this goal. In addition to these teaching experiences I have also participated in special conferences on this topic as well as special training experiences. Currently almost all of the students whose dissertations I am overseeing are using NVivo software for their dissertation research, which provides me with multiple in-depth case examples. These students also participate in an advanced seminar, which serves as a sort of users-group. Teaching qualitative research with NVivo has proven to be an exciting challenge, enticing me down many new and unexpected paths (Davidson, 2004; Davidson, 2005a; Davidson, 2005b)

The process of working with students to develop their qualitative research projects has made me increasingly aware of 'the project' as a specific kind of electronic container for qualitative research work. This awareness caused me to revisit the notion of genre as I thought through the issues related to defining the project for students and helping them to understand its key features. Conducting qualitative research in a software package (such as NVivo) is relatively new, and, therefore, much of the supporting materials are highly practical and how-to in nature. To date, there has been limited theorizing that would contextualize the use of these tools within the broader scholarly landscape.

In undertaking this exploration, my underlying purpose is to answer: Is 'the project' a genre? And, if so, of what importance is it to us to know that it is such?

Genre as a Framework for Understanding the Notion of Project as it Occurs in Qualitative

Research Software

This discussion assumes that the reader has some understanding of the purpose and

organization of qualitative research software in general, if not specific understanding of NVivo

software (a member of that class). More information on this topic can be found at the Computer

Assisted Qualitative Data Analysis (CAQDAS) web page in the United Kingdom, which is

devoted to broad discussion of these issues (http://caqdas.soc.surrey.ac.uk/ .

The entry point to NVivo puts the notion of 'the project' front and center as one can see

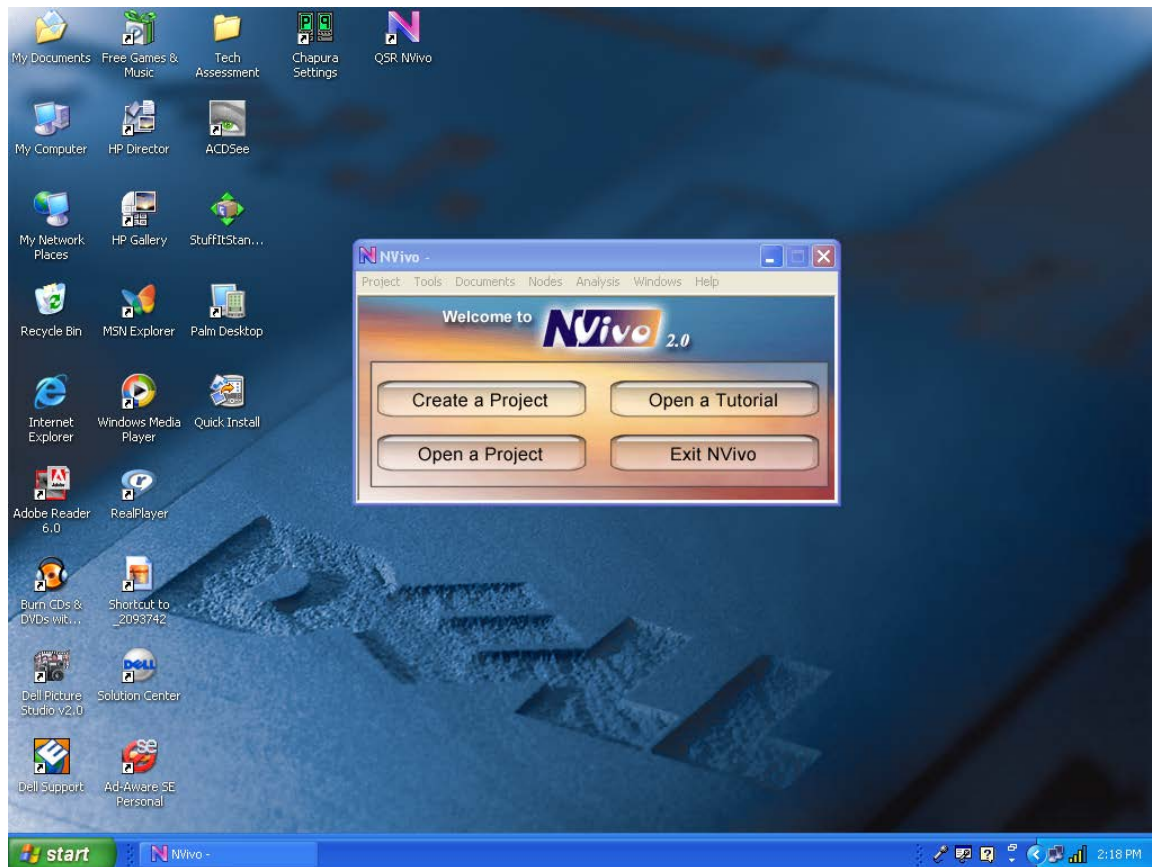in this screen shot of the NVivo interface.

Figure 1

Screen shot of NVivo Portal

Once inside an NVivo project, a user has access to a document data base, a node data base (lists of codes that can be organized in related or non-related ways), as well as the ability to create hyperlinks within and across data in the form of document links, node links, and data bites.

Below is a picture of a Project Pad, which appears for each project, showing the parts of the project: documents, nodes, sets, attributes, and then the critical cross-linking tools of searching and modeling.
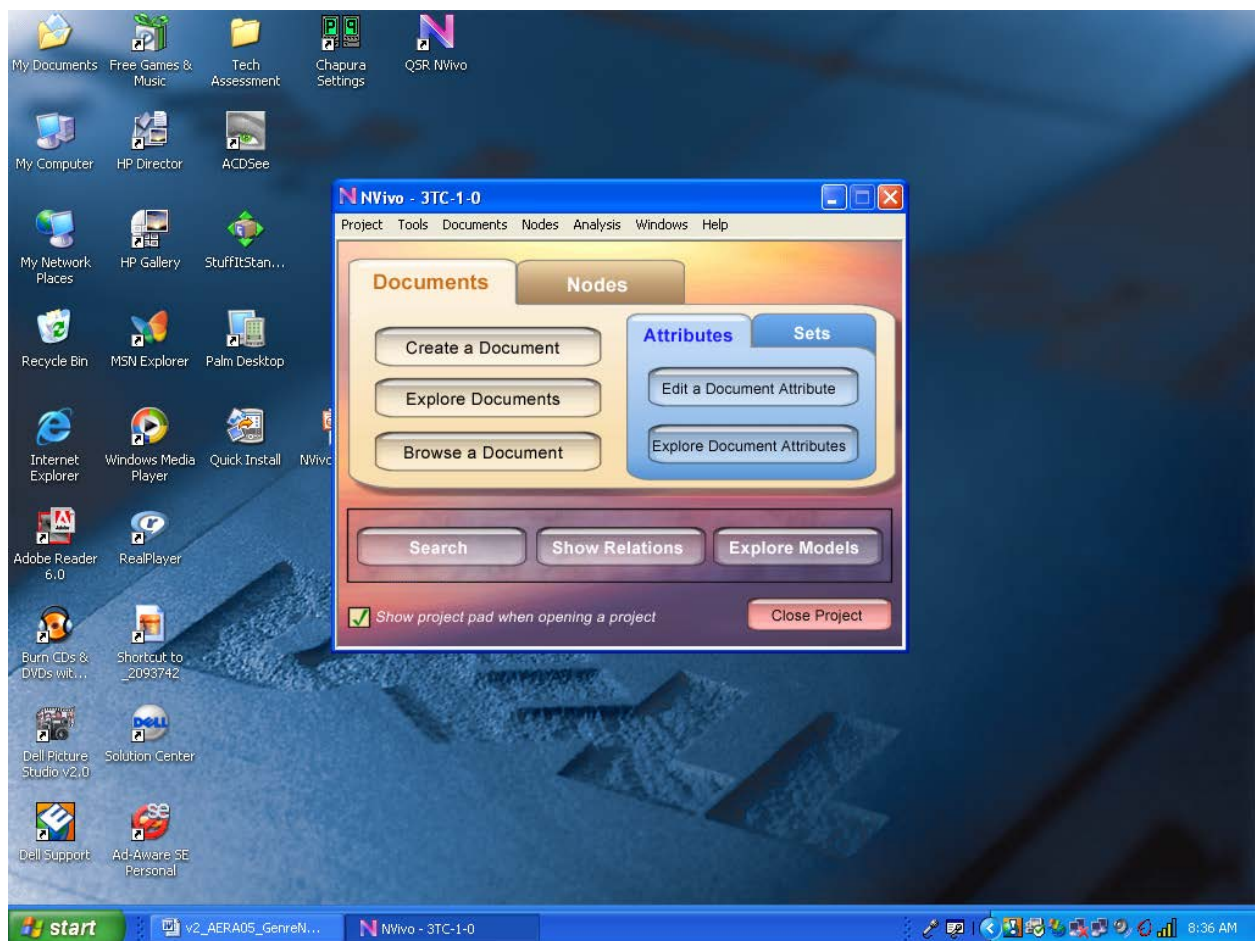

Figure 2

Screenshot of NVivo Project Pad

In this form, the project is a portable container of meaning. Projects can be exchanged among qualitative researchers. They can be saved at different stages of development to be reviewed and compared. Projects can now be compared and standards of style considered.

In a pre-electronic world, the project became manifest in a variety of genre: dissertations, journal papers, and books. However, in the new world of qualitative research software, the project is itself a genre, a knowledge product exchanged among members of the qualitative research community. The project is, then, a vibrant and elastic electronic container that has literate integrity unlike what I have experienced prior to the use qualitative research software.

Swales Definition of Genre and the Experience of 'the Project'

In this section, I will be using Swales' (1990) description of the critical features of genre discussed earlier as the anchor for considering the notion of 'the project' as I have come to understand it through my experience of teaching qualitative research with NVivo software.

1. A genre is a communicative event (p. 45)

In my class, students create an NVivo project at the beginning of the semester, continuing to add to it over the semester, developing it as they add and link materials. The project is what is sent to me at the mid-term and completion of the semester. The project is what is exchanged among students as they examine the emerging work of their class colleagues. Our discussions of qualitative research center on the project as it is instantiated in the electronic form. We through a project up on the LCD or examine one on a computer screen.

2. The principal criterial feature that turns a collection of communicative events into a genre is some shared set of communicative purposes. (p. 46)

The production of the project and the exploration of its features is an ongoing topic of discussion in our class. Students struggle to understand how the data they collect provides answers to the question they are asking. Because the data is embedded in the project in its electronic form, this struggle for understanding is embedded in the notion of the project as an emergent entity. Our conversation about the research can never stray too far from this thing called the project. Whenever we have a question or concern, we check back into the project for clarification.

I ask students to present their projects in a variety of ways to class colleagues. They may email a project to a classmate and then get feedback in a small group during class. They may present a project to the whole class for our review of features and development. Students can exchange projects, sending feedback to each other embedded as a compound document. In working with projects in this way students must always be aware of form, style or technique and content or substance.

3.   Exemplars or instances of genre vary in their typicality (49)

The notion of the project in this electronic form is new to students but also to me. The project did not exist in this form in the qualitative research in which I was trained. The more I used the software with students, the more examples or cases of project form I began to carry in my head. I began to develop standards for what I should see in a project and to articulate these to students in the form of grading rubrics. The need to grade the project required that I understand what is typical and atypical in regard to the form (see Appendix A for example of grading rubric and Davidson, 2004).

Working with NVivo projects in a class setting has led to the standardization of a number of features in the assigned projects. An example of such standardization in the project is the

overview document. Also known as the 'Start Here' document, this is a compound document

which provides the reader with a roadmap for understanding how to read the contents of the

particular project. Some students distinguish this document within the line of documents by

using a '1' at the beginning of its file label so it will show up first. Others give its document icon

a unique color that will help the reader find it quickly, such as in the example below provided by
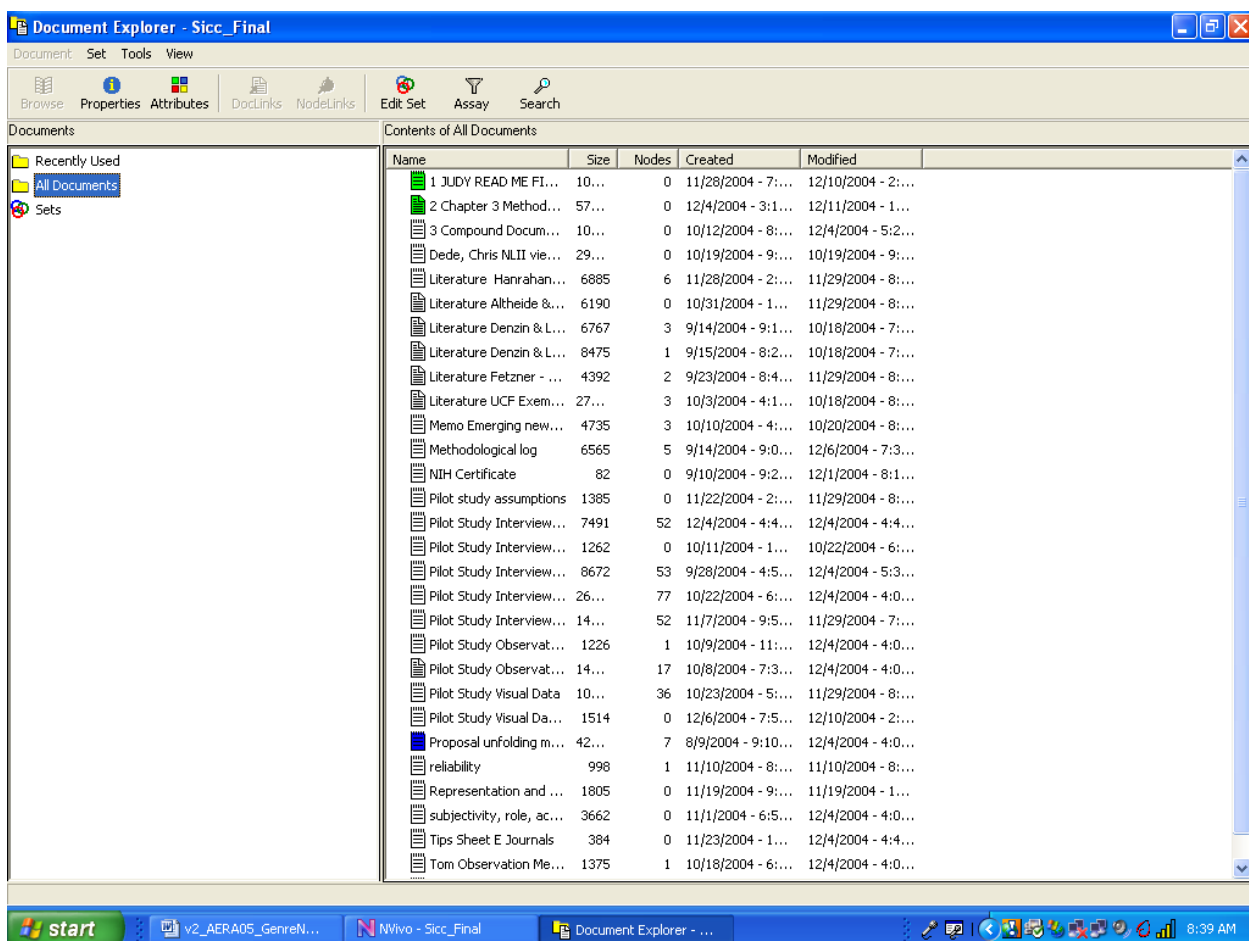
Carolyn Siccama.

Figure 3

Screen Shot of Carolyn Siccama's Document Database demonstrating use of color to distinguish

critical documents that need to be located quickly

To help myself to understand how I was reading a project, I kept a running record of the process by which I moved through the mid-term projects. Several pages in length for each student project, these notes helped me to see what I noticed within the projects and why.   At the close of reviewing the project I asked myself: What did I find exceptional? What was emerging here?

In class we heightened our attentiveness to the features of the project genre through discussions of how we read a project. Students pointed out the importance of audience and purpose to the act of reading the project, emphasizing both the typicality and the uniqueness of each project (11/30/04 class discussion).

4.   The rational behind a genre establishes constraints on allowable contributions in terms of their content, positioning, and form (p. 52)

Our user community is still very new, but even so I can see remarkable divergence between beginner and advanced uses. Beginners struggle to produce basic features, while advanced users of the project think fluidly within the container. As readers of a genre called 'the project' we are coming to understand what a strong, advanced, or efficient presentation of the project resembles and what a weak or inefficient presentation of the project resembles. Some of the features where one might seek confirmation of the standard are found in: organization of documents, use of node trees, understanding of attributes, the ability to use cases.

For instance, an NVivo beginner would have all the documents bunched together with no visible ways to distinguish documents in a list. While on the other hand, a more advanced user would think about the kinds of documents that would be developed for the project and then flexibly make use of the features of NVivo that would allow them to group and order documents. In the picture above of a document data base created by Carolyn Siccama, she uses color just for

the documents that I, the instructor, have to find. She uses a key word to identify different kinds

of data (literature, pilot, etc.) that will clump these materials in the same area.

Gerald Rigby, on the other hand, uses words and color to distinguish the different forms

of documents in the data base: royal blue for fieldnotes, aqua for journals or logs, red for
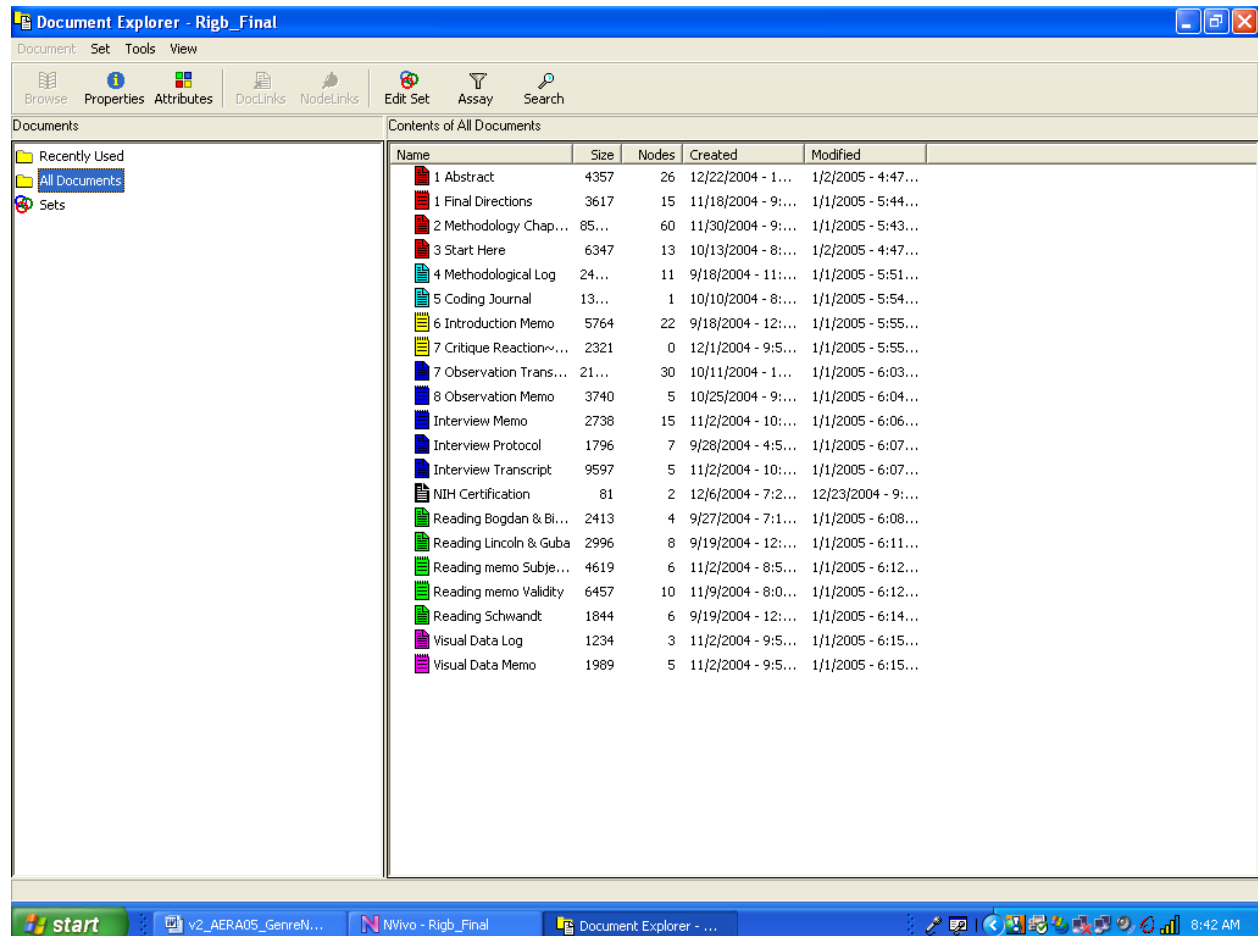
documents that I (the instructor) have requested.

Figure 4

Screen Shot of Gerry Rigby's Document Database demonstrating the use of color to distinguish

types of documents

The choices Carolyn and Gerry have made are representative of style, as they are

exercising it within the parameters of NVivo.

4.   A discourse community's nomenclature for genres is an important source of insight.

(p. 54)

My Fall 04 Qualitative Research course was my most ambitious attempt, thusfar, at integrating NVivo software into every aspect of class work. The members of this class represent my most advanced group of users. One thing that stood out about this group was their verbal play around NVivo features. Examples of our NVivo jokes include: " the Node knows" or "Oh node it!" or "Take a memo."   This verbal play only made sense to people who were familiar with NVivo features. These jokes were distinctive to our community, identifying us as insiders in the use of this tool.

As important as the jokes, students also begin to use the features of the project in new and vibrant ways, demonstrating their understanding of it as a whole. An excellent example of this development can be seen in Charmaine Hickey's development of the 'project shell'. 'The shell' as we are coming to refer to it within our community of users is the outline of a project in its infancy. You take everything you know about the project data, potential nodes, etc. and develop a shell within which the project can be grown (See Appendix B: Hickey's project shell).

The interesting thing about the shell is that only a sophisticated or knowledgeable user would be able to develop one. A user has to have a full understanding of the NVivo project, its features, and how those features can be applied to different sorts of problems in qualitative research project development to be able to create a shell that adequately anticipates the features of a project. Thus, the emergence of the notion of the shell, speaks to the growing sophistication of our community of users.

Discussion

Two things have now been established: 1) qualitative research software has been the impetus for the emergence of a new generic form in qualitative research known as the project; and, 2) as there is increasing experience with the project as it is embedded in qualitative research software, users grow in their understanding of its features and characteristics, developing standards for its use, and an enriched sense of what is advanced vs emergent use. But in knowing these two things about the project and its shift to the level of generic form, we still have not answered—of what importance is this knowledge? Why should we care about this thing called the project? What impact will the new genre—the project-- have on the conduct of qualitative research?

I think there are three major issues to consider here. These include the impact on the ways we: 1) interact with others around our work; 2) establish the warrants of truth in regard to our work; and, 3) visualize our work.

Interacting with others around our work

The project provides a new standard unit of exchange among qualitative researchers. We can send it to others—in whole or in part. In my cut and paste dissertation study, I never shared the corpus of my materials with my committee. I discussed what I was learning but we never had the opportunity to move fluidly between my memos and the raw materials. In hindsight, the development of the dissertation seems like a monumental exercise in faith and blind trust. Today, however, using NVivo in discussion with students, we can open a project and review materials, features, and approaches. Our discussion of the substance is integral to our discussion of the techniques students are using to organize their materials within the project. This aspect of the project in its electronic form should allow us to move students beyond the badlands of merely code and retrieve into richer interpretive pastures (DiGregorio, 2003; Richards, 2004)

NVivo projects are both standardized and unique. The format is shaped by the possibilities of the software and constrained by the same, just as paper, pens, Xerox, scissors, tape, and paste were also expansive and confining technology for qualitative researchers.   As qualitative researchers interact using the project as a basis for discussion, it becomes more and more important for researchers to share understanding about what should be present (the standardized) and what can be different between projects (the unique).

I do not foresee peer-reviewed papers or books being forsaken in the near future. However, I do see the project moving to the fore as a form that may become equal in importance to these research outcomes. The issues of ethics and confidentiality that this move will raise will need to be explored in some depth, before this can become possible.

Already qualitative research trainers and conferences for qualitative researchers are offering what has been termed a 'master class', where a researcher brings an NVivo project for review. The trainer, acting like a coach or expert, reviews the project in front of a small group of people, describing what they think should be done to strengthen the project. In these sessions, a researcher has the eyes and ears of his colleagues for approximately 1.5 hours. This is a rich opportunity for discourse that is often missing in the lives of researchers who have passed beyond the dissertation phase.

Establishing the warrants of truth for our work

The project offers a new level of transparency (Bringer, Johnston, & Brackenridge, 2004). In our doctoral programs we have already begun to talk about the project shell as something that a student should understand and develop in advance of their dissertation proposal defense (and this idea was proposed by a quantitative researcher with no training in NVivo!). As our standards of what a project should contain evolve and solidify, we are better able to tell

students what a good project should look like and how the goodness (design, efficiency, etc.) contribute to the notion of believability.

To date, it is unusual to see well fleshed out descriptions of the NVivo project in peer-reviewed journals of qualitative research or books describing studies. Most authors have had to suffice with a few sentences to the effect that—I analyzed the data with qualitative research software—afraid they would bore their non-tech-savy readers (In the worst case scenario, this is presented as—qualitative research software analyzed the data!). This situation will be changing as more qualitative researchers become proficient in the tools. My students, already, understand what can be inferred about the quality of a project from the logic of its design. Readers like these will demand, at the very least, an appendix providing richer information on the project design in its electronic form.

The more projects I read, the more I find I can tell about the researcher who has produced the project—does he/she understand the use of logs or memos? Does he/she track his subjectivity in a thoughtful manner? What can I infer from the coding? Is this person highly concrete or overly abstract in their approach? Are opportunities missed in regard to what could be learned from the project because of immature or emergent understanding of the tool?

The software offers new possibilities in regard to qualitative researcher's thinking about such bug-a-boo terms as 'validity' and'reliability' (Richards, 2004), which may cause the more post-modern among us to feel that the software will drag us back into the dark ages of scientific proofs. I think that just as the software may be able to help us provide strengthened understanding of validity and reliability, I think it also offers powerful opportunities for deeper and richer exploration of the more radical views of qualitative research. This might include standpoint approaches and arts-based approaches (Eisner, 2002; Haraway, 1991). Indeed the

hypermedia quality of the tool needs to be explored in service of these brands of qualitative research also.

Visualizing our work

When I did my cut and paste dissertation, I don't think I visualized my research and its questions in combination with the research materials. I could visualize the materials (red and blue notebooks; a shoebox full of index cards, etc.), but I did not see these as a whole. Now, when I visualize a project that I have created in NVivo, I see the whole thing as one hypermedia container. I see all the data and the codes in separate but related containers, all organized within one enclosure.

My new way of visualizing the project is not only retrospective (imaging a project that has already been created) but also prospective (imagining a project that I will create). Thus, my vision of crafting a project is enacted with pictures of a computer screen that opens in certain ways. My visualization of the materials likewise are electronic pages and linkages that fit within the NVivo container.

I am not yet sure of the significance of this change in visualization, but it is a powerful mental difference.

Conclusion

Swales' definition of genre and its application to the notion of the project in Nvivo could be the starting point for a number of interesting speculations. For instance, what are the communicative purposes for which the software is intended? How are these purposes embedded in the historical context of this particular discourse community (qualitative researchers)? In regard to software like NVivo, an area of particular interest to me is the issue of hybridity, that is, how do the pre-electronic forms of qualitative research (observations, memos, papers, etc.)

become mixed into the new electronic forms? In regard to the particular forms that NVivo texts take, what are the characteristic features that distinguish them? How do they differ across users? Moreover, are there exemplars of these genre? How would we be able to point out what is a classical and an emerging use within the electronic forms? This, in turn, gives rise to the notion of style. Are there major stylists and what distinguishes their approaches?

Discussion of genre in this highly technological mode raises important questions about the determining power of technology, an issue that has been discussed in the arena of computer-assisted qualitative data analysis software (Coffe, Holbrook & Atkinson, 1996; Lee & Fielding, 1996), as well as in the larger arena of the philosophy and sociology of technology and science (e.g. Nardi, 1996; Smith & Marx, 1995).

As qualitative research matures in a technological era, increasingly, researchers will make use of the new software tools now available and those that will be available in the future. These tools will shape the design of the project, the collection of data, the course of interpretation, and the form of the final products that 'fix' the knowledge gleaned from the work. For these reasons it behooves us to understand how this shaping process occurs and what are its implications for the quality, forms, and aesthetics of qualitative research. The notion of genre could provide a starting point for a rich discussion of the theoretical concerns regarding qualitative research software, as well as providing qualitative researchers with important ways of connecting our concerns to related discussions in social science and the humanities.

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Introduction to Qualitative Research Methods: 07.704/201
J. Davidson

Mid-term Project Review

As we approach the half-way mark of the semester, I will be conducting the mid-term project review. For this review, your project will be submitted to me in electronic form as an email attachment.

In addition, I am also asking that you submit a copy of your mini-observational project conducted with data from your class colleague.

The following table shows which materials should be completed and included in the project that you send to me.

Materials that will be organized within your NVivo project (items shaded in gray should be completed by the time of the Mid-term Project Review).

Initial Materials *-1 memo* -1 model	
Methodological Log Time stamped entries that provide an ongoing record of the decisions you make in the project in regard to methodology and substance.	
Literature Review Notes -Lincoln & Guba -Schwandt -Altheide and Johnson -one other theory article (TBA)	
Interview Assignment -protocol -interview draft -finished interview *-memo re: interview assignment*	
Observation Assignment -observation draft -finished observation *-memo re: observation assignment*	*Observational Mini-project.*
Visual Data Assignment	

-visual data log (with external data bites connecting to scanned in photos) *-memo discussing three emergent findings*	
Compound documents -mid-term document describing work to date, organization of project, and emergent findings -final document describing work completed since the mid-term document -the proposal will be a compound document developed within NVivo	.
Subjectivity/role/access/ethics -proxy document: representing Human Subjects certification acquired *-memo on an subjectivity/role/access/ethics*	
Coding: All materials must be coded, at least a portion of the nodes must be organized in coherent tree node structures *-memo on material at one selected node*	
Models: -1st model (see initial materials) -model depicting data collected -one model related to coding	
Attributes: -attributes will be applied in some form to the data	
Linking Devices -data bites (internal and external) -doclinks -nodelinks These should be used in appropriate ways to link texts.	*(By using doclinks and nodelinks, you will be able to link your mid-term compound document to various parts of your project. Letting me navigate efficiently through your work.)*
Searches and Reports **(To be determined)**	
Other (Items that we specify in class or items that are unique to your project.)	-understand how to use the 'save as' function -understand how to use 'back-up' and 'restore'

	-can use memory stick (or other devices) to transport project
Overall Organization of the Project -do you make use of pertinent organizational features to allow the reader most efficient access to your materials and ideas.	

The tool by which you will help me to understand the parts of the project and the role of the software will be a compound document, created within NVivo. This document may be either a textual or a graphic memo. NVivo developers define a compound document as one that has "data links" to other documents or nodes.

The Compound Document is a memo developed within NVivo that should provide a reviewer with the following information:

- A succinct description of the project: question, methodology, and chronology
- It should discuss the various forms of data gathered thus far, and the process of collection and improvement--providing links to the pertinent locations.
- It should provide a discussion of the development of the project within NVivo. How was the project conceived and developed within NVivo? How did the various NVivo components come into being? What significant decisions were made in the shaping of the project? What significant things have you learned about the software as a tool for organizing and analyzing qualitative research data? Again, point the reviewer to links as is appropriate.
- In conclusion, you will want to give a brief discussion of your next steps, that is, what remains to be done to complete the project.

The compound document should be something like a technical report, succinct and clear. The compound document is a road map. It provides us with an understanding of the places we will go, but then we get to stop off and really see the place on the map (the data, code, etc.)

Through the use of this document, I should be able to gain a good understanding of: 1) the course of the project up to now; 2) the data that has been collected for this project; 3) the ways in which this data has been organized and analyzed; and, 4) the role that the software—NVivo has played in this process.

Criteria for Evaluation

The following criteria will be considered in the evaluation of the project.

Organization of Project -Overall, the organization of documents, nodes, and other components of the project is sensible and easy to grasp -Overall NVivo features are used to their best advantage to support an outsider's understanding of what is here and demonstrate the insider's understanding of the importance of organization and management of data. -the researcher makes effective use of a methodological log to keep track of methodological changes in NVivo and in project process	
Compound Document -meets standards of completeness defined in the assignment -provides a clear understanding the research has taken -provides a roadmap to the organization of the research within the NVivo project -makes appropriate use of data linking features to support reader/user. -meets professional standards as a document to benchmark progress -subjectivity is acknowledged appropriately and serves as a resource not a barrier to the strength of the work.	
Data Components/Document System -The pieces are easily locatable. All data required for the research assignment are included. -The document system is organized in an understandable fashion that makes sense to the user/reader. -The researcher understands how to use section headings to organize documents for more efficient use. -The researcher makes appropriate use of memos as secondary documents to fix findings and aid interpretation. -The researcher understands how to create internal and proxy documents.	

## Observations -data collected meet standards of excellence for data of this form -the format lends itself to readability and interpretation -the researcher makes good use of NVivo components to explore and support interpretations	I will also ask you to send me your mini-project conducted with the observational data from your group member, to help me to make sense of this category.
## Interview -data collected meet standards of excellence for data of this form -the format lends itself to readability and interpretation -the researcher makes good use of NVivo components to explore and support interpretations	[Only the interview protocol is required at this point.]
## Node System and Coding -the researcher knows how to create nodes -the hierarchy of the tree nodes demonstrates a reasoned understanding of the relationship between the parts -nodes created build appropriately from the data -the researcher understands how to use section headings as a coding device -the researcher has understanding of how to code proxy documents (particularly literature related to the project) -nodes reflect emerging interpretive understanding (they are not just descriptive labels)	
## Data Links -the researcher knows how to create databytes, doclinks and nodelinks -the researcher uses these features appropriately to support understanding and the building of interpretation -the use of data links supports rather than distracts from making sense of the data	
## Modeler -the researcher knows how to use the modeler -the researcher uses the Modeler to 'fix' new understandings and to build new interpretation	
## Attributes	

-the researcher knows how to use the attribute feature appropriately	

The two NVivo Projects (Your project and your mini-observational project) should be **submitted to me as an email attachment by NOON on Tuesday October 19, 2004.**

In submitting your project you should use this convention for labeling the BACK-UP copies you send to me:

1. For the full project: first four letters of your last name, underscore, then the number 1, then F (for Fall) 04.

   So if I were sending a project, it would be labeled: Davi_1_F04

2. For the mini-observational project: first four letters of your last name, underscore, obs_F04

   So if I were sending this project, it would be labeled: Davi_obs_F04

Following these conventions will help me to make quick sense of your material when I get it. Thank you, in advance, for your assistance with this organizational detail.

Panel Discussion: Data Collection and Analysis - Super Wednesday
Janet Curran-Brooks, Joan Lehoullier, Charmaine Hickey
The Graduate School of Education
University of Massachusetts Lowell
March 9, 2005

What is the purpose of the NVivo "Shell"?

- Think about data before (and during) data collection
- Protect data
- Reinforce or strengthen data
- Increase reliability

- Strengthen validity
- Trustworthiness
- Write other reasons here:_____
  _____

What are the NVivo tools that might make up the "shell"?

- Documents
  - Literature
    - Theory
    - Method
    - Context
  - Logs
    - Compound document "tour" of project
    - Methodology
    - Reflection
    - Coding
  - Proxy Documents
    - Represent e-mails (keep confidentiality)
    - Represent file of publishers' permission certificates
    - Log of project expenses
    - List of what is in your folders at home
    - Track phone calls about the project
  - Documents for each data collection method (set up headings to prepare for "coding by section" function in NVivo)
    - Surveys
    - Participant journals
    - Interviews
    - Audio-tape transcriptions
    - Photo journal
    - A copy of your proposal or Comp II
- Notes about drawings
- Notes about videotapes
- Observation field notes

> Other NVivo tools I might want to use for my project:

- DataBytes: scanned documents (IRB certification, publishers' permission certificates, photos, other); audio-tapes; videotapes, photos, drawings, important figures from the literature
- Pre-established nodes (possibly extracted from the literature)
- Sets (things that go together)
- Cases (one for each person, group of people, place)
- Attributes that are known (gender, job category, location of school)
- Attributes that you will fill in later (i.e., dates)
- Models

Be Creative!
- Use color to categorize or highlight
- Use underlining, **bold**, *italics*, & fonts to emphasize
- Consider importing tables, like survey data

The shape and intricacy of the "shell" depends upon what it must accommodate (*your individual project*).

Try it!
Before inputting any actual raw data, you can try working with:
- Searches
- Assays
- Scopes
- Models
- Matrix Searches

…to practice with what you've put into your project "shell" ahead of time. Also, don't forget you can experiment without risk using NVivo Tutorials!

Other things I want to remember for my NVivo "shell":