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Information creation and the notion of membership

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Abstract

Purpose – This article aims to examine a particular sub-set of human information behavior that has been largely overlooked in the library and information science (LIS) literature; how people are socialized to create and use information.

Design/methodology/approach – Naturalism and ethnomethodology were used as theoretical frameworks to examine what a group of fifth grade students were taught about documents, how this information was imparted to them, and how social factors were manifested in the construction and form of those documents. Two concepts are shown to be critical in the explication of students as document creators and users: the notion that there is a "stock of knowledge" that underlies human interaction (some of which relates to recorded information), and that this socialization process forms part of a school's "hidden curriculum."

Findings – Students were socialized to be good (in the sense of being competent) creators and users of documents. Part of the role of "being a student" involved learning the underlying norms and values that existed in relation to document creation and use, as well as understanding other norms and values of the classroom that were captured or reflected by documents themselves. Understanding "document work" was shown to be a fundamental part of student affiliation; enabling students to move from precompetent to competent members of a school community.

Originality/value – This research demonstrated that people possess a particular stock of knowledge from which they draw when creating and using information. Competence in this aspect of human information behavior, while partly based on one's own experience, is shown to be largely derived or learned from interaction with others.

Keywords Knowledge, Information media, Ethnography, Curricula

Paper type Research paper

Introduction

Spink and Cole (2006, p. 3) state that "humans have sought, organized, and used information for millennia as they evolved and learned patterns of human information behaviors (HIBs) to help resolve their human problems and continue to survive". However, before humans can seek, organize and use information (or indeed, for that matter, share, forage, exchange, interpret, or make sense of it), they must first bring it into existence. This article presents findings from a dissertation research study (Trace, 2004) which broadens the concept of human information behavior to include a particular facet or sub-set of this framework that has been largely overlooked in the LIS literature – "information creation". As a concept in human information behavior, information creation research focuses on how and why people are socialized to create information in various contexts (whether in everyday life or in the working world). In the process, the fundamental skills and knowledge that come into play in creating information, and the larger role that genres (or physical forms) of information play in society, are examined.



Journal of Documentation Vol. 63 No. 1, 2007 pp. 142-163 © Emerald Group Publishing Limited 0022-0418 DOI 10.1108/00220410710723920 This study examined how and why a group of fifth grade children were socialized to create and use documents in a classroom setting. Specifically, this research analyzed what students were taught about documents and how this information was imparted to them. The study delved into the underlying norms and values that were learned by students in the process, as well as touching upon other norms and values of the classroom that were captured or reflected in documents themselves. The research also examined why knowledge about creating and using documents was an important, if hidden, component of an educational setting; in the process discovering the role that documents play in relation to notions of student identity and school membership.

Using Case's (2006) framework, it is evident that the research described above has a home within the categories that have been used to bring together and synthesize the human information behavior literature. Case states that, after occupations, "non-employment" roles are the second most prevalent way to study human information behavior. As a study of students (associated with a demographic encompassing both children and adolescents), this research joins prior work that has looked at human information behavior in the K-12 environment. Up until this point, such research has primarily looked at students learning in the school library, their information seeking behavior in the electronic environment, or children's human information behavior in everyday life (Todd, 2003). The research described in this article also finds resonance (if not always absolute concordance) with a number of existing theories and methods that have been used to study human information behavior. Among these are the constructivist approach (Dervin, 1983, 1999; Kuhlthau, 2004) in which context is paramount and people are viewed as "actively constructing an understanding of their worlds, heavily influenced by the social world(s) in which they are operating" (Bates, 2005, p. 11); studies that use ethnography as a methodology (Chatman, 1992) allowing the researcher to "become immersed in a culture, identify its many elements, and begin to shape an understanding of the experience and world view of the people studied" (Bates, 2005, p. 12); and studies which have eschewed macro theory in order to look at individuals within society, including the study of small group interactions and processes (Chatman, 1999; Kuhlthau, 2004).

Key definitions

Two concepts are shown to be critical to the explication of students as both document creators and users: the notion that there are social norms and realities that underlie human interaction (our so called "stock of knowledge"), and the notion that there is a "hidden curriculum" in schools. However, before any explanation of these concepts is given, the particular genre or type of recorded information or "everyday text" (Stillar, 1998) that formed the basis of this research study – the "document" – must be defined.

With the ratio of adults to children in a classroom it is not surprising that prolific amounts of recorded information are needed to organize, schedule, monitor, assay, and provide continuity to a myriad of everyday activities that happen in and around the classroom. Such documents are typically referred to by teachers as "paper" or "paperwork" and consist of those textual objects that are created and used as a by-product of teaching. These are documents to which students usually have had some prior exposure, as many American elementary school classrooms share document types in common. Examples of such documents include: agendas, lists of student jobs in the classroom, lists of students who have to stay in for lunch, roll books, book check

lists, and homework charts. A second type of everyday document that students encounter in the classroom are those that students will have some hand in creating themselves, either as part of homework assignments or to meet other school obligations. Again, these are documents that exist as by-products, not as direct products, of the learning process. These everyday documents help to get work done rather than being the final outcome that represents a part of the official curriculum of the classroom. The most common examples of these documents include: homework cover sheets (acting as a contract between student and teacher), pop quiz sheets, note cards that students use to gather data for their language arts/social studies or science projects, homework pages, and field trip forms.

Stock of knowledge

As part of the process of studying how people make sense of the world around them, ethnomethodology pays attention to the social norms and realities (the so-called cultural knowledge or stock of knowledge) that underlie social interaction. For Leiter, an understanding of such commonsense knowledge stems from an engagement with, and an understanding of, three phenomena drawn from the work of the phenomenologist Alfred Schütz: the qualities of this stock of knowledge, how people see and experience the social world, and the practice of commonsense reasoning. According to Leiter (1980, p. 5), our stock of knowledge consists of "recipes, rules of thumb, social types, maxims, and definitions... The stock of knowledge also consists of social types or idealizations of people, objects, and events that serve as points of inference and action". Leiter describes six particular qualities that are ascribed to our stock of knowledge. The stock of knowledge is socially derived; while a small part of this knowledge emanates from a person's own experiences, a larger part is derived or handed down from interactions with others (including, as Schütz notes, parents and teachers) (Schütz, 1962, p. 7). The stock of knowledge is socially distributed in that what one person knows is disparate from the next. This social distribution of knowledge itself forms part of the stock of knowledge at hand. The stock of knowledge is "built upon and expressed" in "everyday language." The stock of knowledge has an "open horizon of meaning" in that meaning is derived from the relevant and situated contexts in which they are used. Finally, because of its contextual nature, the stock of knowledge "is not a neatly and logically ordered storehouse of information and typifications" (Leiter, 1980, pp. 5-7).

Leiter describes how people see and experience the social world (what he calls a sense of social structure) in terms of it being a "factual environment." Again drawing from Schütz, he ascribes to people a number of views of the social world. The social world is experienced in terms of having a "past, present, and future"; as being intersubjective; as factual and taken for granted; and finally that people "address the world and its objects pragmatically" in that people are "interested only in those features of the world that are relevant to the project at the moment" (Leiter, 1980, pp. 7-9). According to Leiter, the final phenomenon that commonsense knowledge refers to is the "practices of commonsense reasoning." He states that it is through the use of commonsense reasoning that people "create and sustain the sense of social reality as a factual environment." Leiter sees this reasoning as a method (what ethnomethodology calls an "ethnomethod"). It is a method by which people turn their personal experiences into "objective reality". Furthermore, this process of reasoning

The "hidden curriculum"

The origin of the term "hidden curriculum" is usually attributed to Phillip Jackson in his book *Life in Classrooms* (Marsh, 1997, p. 33; Gordon *et al.*, 2001, p. 189; Margolis, 2001, p. 4; Lynch, 1989, p. 1; Jackson, 1968). According to Margolis, Jackson argued that the hidden curriculum emphasized certain skills that, while marginally related to educational goals (the official curriculum), were essential for students to make satisfactory progress in school. These skills include learning to wait quietly, exercising restraint, trying, completing work, keeping busy, cooperating, showing allegiance to both teachers and peers, being neat and punctual, and conducting oneself properly (Margolis, 2001). Jackson sees the dichotomy that exists between the "hidden" and the "formal" curriculum as representing the demands of institutional conformity versus the demands of scholarship (Jackson, 1968, p. 33).

LeCompte, in her study of kindergarteners, also expresses the difference between the "hidden" and the "official" school curriculum in terms of the socialization to schooling being two dimensional. For LeCompte, this consists of a behavioral, or an orientation-to-tasks component (this part forms the "hidden curriculum") and an academic or intellectual component (this forms the "official" or "formal" school curriculum) (LeCompte, 1980). LeCompte's explication of the official curriculum documents the intellectual or academic component of education (or what Jackson would call the goals of schooling). This consists of preparation for, and the actual cognitive learning of such activities as reading, writing, spelling, and math. LeCompte's listing of the behavioral components of the socialization process of the hidden curriculum mirrors Jackson's lists of skills: "adhering to norms for timeliness, peace and quiet, a task orientation, and conformity to authority, maintaining a friendly attitude toward peers, and practicing basic morality — don't lie, cheat, steal, and/or break things" (LeCompte, 1980, p. 107).

The notion of a hidden curriculum draws attention to the fact that schools do more than simply transmit knowledge (a curriculum) from teacher to student. There is another layer of learning that happens in schools that is not directly affiliated with the official curriculum. Socially approved knowledge, in the form of social norms and regulations, such as how to get on with teachers and peers, are also consciously or unconsciously negotiated as part of the educational process of schooling. The research on the hidden curriculum in schools has suggested that what students learn revolves around negotiating relationships with others, meeting expectations, dealing with authority, and how to simply "get through the day". In this article I argue that a concept I call document work can and should also be looked at as part of the activities of the hidden curriculum. By document work I am referring to a myriad of behaviors and activities that students learn and that relate in some manner to documents. Document work can be examined as part of the notion of a hidden curriculum for two reasons. First, documents can act as a tool to communicate and sanction the ideal norms advocated in the classroom. The second reason, and the one that forms the heart of this article, is that learning about documents themselves is a skill or activity that in and of itself forms part of the subset of the hidden curriculum. Such work fits into Jackson's description of these behavioral and orientation to tasks activities that are

being "performed according to rather well-defined rules which the students are expected to understand and obey" (Jackson, 1968, p. 8). Document work, therefore, functions both as an articulation and as an enactment of the hidden curriculum.

There are different ways of thinking about or giving meaning to the hidden curriculum. Although there is general acknowledgment of the concept of education as a socialization process, how that socialization comes about and what it says about our notions of society have differed substantially over time and within and among disciplines. The idea that children learn or are socialized to become students (and that this socialization has a particularly adult agenda) is not new. As LeCompte asserts, but perhaps overly harshly, "schools are not now, and have never been, established to meet student needs so much as they have been structured to carry out a process of socialization to certain aspects of adult life" (LeCompte, 1980, p. 106). To date, there have been two prominent theoretical approaches to the analysis of the hidden curriculum within the sociology of education – the functionalist and neo-Marxist views (Lynch, 1989). As Sieber states "much research on schooling's 'hidden curriculum' has suggested that the school serves as a form of 'workplace' where pupils initially learn and rehearse role behaviors and develop cultural competencies essential to participate in public, organizational work settings" (Sieber, 1979, p. 207). While such a view resonates with the inculcation of document work in the classroom, it is also possible to take an interactionist perspective to an analysis of the hidden curriculum. With an interactionist perspective, the focus moves from the general societal level to what actually happens in the classroom. In particular, an interactionist perspective looks at ways in which classroom interaction is constructed and reconstructed on a daily basis. The nature of a hidden curriculum is positioned not so much within a framework determined by society's structure or students' socio-economic background but in terms of the day-to-day negotiations that occur in interactions between and among people in the classroom setting.

Research design

Theoretical framework and research questions

This research study is concerned with the beginning of the life of the document, with the creator (or the recorder), and how the record reflects the social nature of the world around it. In particular, both naturalism and ethnomethodology were used as theoretical frameworks in order to better understand the nature of documents and document creation in a fifth grade classroom. Naturalism was used to broadly understand what was happening in the social setting; ethnomethodology to start looking specifically at the processes evident in social interaction that related to documents and as a framework within which these processes could be understood.

The use of ethnography as a methodology also influenced the nature of the research. The particular character of ethnographic research differentiates it from quantitative studies. At the heart of ethnography is the concern for members' meanings; understanding a social situation in terms of what is meaningful to members of the social group being studied. Such an approach necessarily influences the relationship and the timing that exists between data collection and data analysis, and when analysis occurs within the study. As an ethnographic study, broad research questions were determined prior to entering the field. This was necessary in order to situate the study and delimit, to some extent, what would be examined in the setting. A shifting

and tightening of emphases occurred as questions become clearer in the setting and linkages could be made to the relevant literature. Therefore, within this particular theoretical and methodological framework, the following preliminary questions, with their subsequent refinements, were investigated:

- RQ1. What was going on in the classroom with regard to document creation and use? What was the available cultural knowledge in the classroom that referred or related in some way to documents? What were the social norms and the institutional realities that resided in or formed a part of the school's "hidden curriculum" and that related in some way to documents? Did this stock of knowledge relate directly to the creation and use of documents? Or did documents reflect or represent a further layer in human negotiation, a textual rendition of more general norms and institutional realities?
- RQ2. What was the process by which students accomplished the creation and use of documents within a classroom setting? What did people have to know (individually and collectively) to create and use documents in a school context? How was this stock of knowledge used, and what were the processes or procedures (ethnomethods) by which they were produced and substantiated?
- RQ3. What larger function and role did documents play in the school environment? What did documents embody? What did they achieve? What ties existed between documents and the social systems that they served? What roles did records play in relation to notions of school identity and the ethnomethodological concept of "membership?"

Population

This study, in typical ethnographic fashion, focused on one research setting where a detailed analysis of aspects of small social groups and the operation of a particular social process could be observed (LeCompte and Preissle, 1993). Criterion-based selection was used to identify the population to be studied. In selecting a school and then a classroom as the field site the intent was to work with what is termed a complete or naturally bounded population (LeCompte and Preissle, 1993). The study was also bound by logistical constraints; meaning that the school had to be close enough to be visited almost daily over the course of an academic school year. Within the school setting itself reputational-case selection was used as a way to hone in on specific instances of the study population (LeCompte and Preissle, 1993)[1].

The research population was drawn from a Southern Californian Elementary School; specifically rooms 5 and 6 of River Forest Elementary (River Forest Elementary is a pseudonym, as are the names of teachers and students described in this study). Rooms 5 and 6 together formed one of two fourth/fifth grade combination classes in the school. At the time of the study, River Forest Elementary employed 33 teachers and an administrative staff of 27, to provide education to over four hundred students, ages four through 12. The 2000 census painted a picture of the affluence of the urban community in which the school was situated; a community where over seventy percent of the population listed management, professional, and related as their occupations. The demographics of the student body, however, did not closely match that of its immediate neighborhood. The school strove instead to mirror families' economic and ethnic backgrounds with the larger metropolitan community.

The ethos of the school could best be described as progressive, following the John Dewey philosophy of education, where learning was project-centered and authentic. There was a heavy emphasis on educating the whole child: academic; social; emotional; and physical. The teaching philosophy extended to concept based learning, facilitating students' learning through doing, and an importance placed on student collaboration as a facet of learning. The educational philosophy of the school also extended into the general physical layout and organization of the campus. The classrooms were based on multi-age groupings where two age groups were combined in one classroom. Such a structure allowed for a deeper student-teacher rapport, as teachers stayed with students for two years instead of the customary one. The school also viewed this arrangement in terms of modeling a family structure, where older children took a leadership role and younger children were exposed to a wider range of skills and competencies, as well as having a wider social network. The broader age range also allowed the teachers to engage with a more diverse curriculum, with an accompanying wider set of instructional strategies that was adapted to the students' skill levels.

A total of 59 students and three teachers called rooms 5 and 6 home during the 2002-2003 academic school year when this study was undertaken. The three teachers who taught in this fourth/fifth grade classroom (Ms Lyons, language arts and social studies; Ms Carson, math and science; and Mr Beckner, math and writer's workshop) agreed to be observed and interviewed as part of the research process. A total of 22 students (of a total of 29 students in the fifth grade), and their parents, also returned consent and assent forms agreeing to participate in the study. Student assent forms and parental consent forms asked for permission for students to be observed in the classroom during the school year; for students to answer brief questions related to their written work; and for certain materials created by either parent or child (as they related to the child's education at the school site) to be look at and copied[2].

Data collection and analysis

It should be pointed out that it was difficult to study document creation and use because it is an aspect of life that is so common and so prevalent that it is almost invisible to us. When we create and use documents in our daily life there is little or no talk or active thought given to this activity. The relative lack of dialogue around document creation and use makes understanding the role that documents play in the world of others more difficult to examine and comprehend. Any study of documents or document creators therefore involves studying social meanings produced through conversation, studying social meanings produced through other methods such as textual representations, as well as studying social meanings produced through actions that occur, or do not occur, around text.

Discovering the social norms and realities of any setting can also be difficult. As Feldman states, "they may be so embedded in the culture of a setting that no one talks about them or is even aware of their existence" (Feldman, 1995, p. 20). In order to discover social norms, ethnomethodologists typically look for certain types of situations. One situation, which Feldman states, is relatively rare, is breakdowns in social interaction. A second situation is one in which norms are so thoroughly internalized that breakdowns are nearly impossible. The focus in this instance is on the "widely accepted and taken-for-granted practices" (Feldman, 1995, p. 4). Feldman talks about two ways, other than Garfinkel's method of breaching, in which ethnomethods

can be discovered in such a setting. The first way is to consider what Feldman says would constitute "unacceptable behavior" within the particular context and how you know such behavior is unacceptable. The second method suggested is to look at the types of cues or signals that are given to members that "help them know how to act" (Feldman, 1995, p. 20).

For this research study, I used Feldman's strategies (considering what it unacceptable, and looking for the cues that members are provided within social situations) in order to uncover what the expected norms and regulations were in relation to document creation and use. Such stock of knowledge centered on what students need to know about creating and using documents in order for them to be able to function as students and members of this particular social world. These acts of socialization in and around documents were examined through an analysis of teachers' talk and through quasi-verbal behavior (written media such as the instructions that teachers write on the blackboard). After nine months of fieldwork, the data gathered for this study therefore consisted of:

- ethnographic fieldnotes written contemporaneously with the events or as soon after the events as possible and capturing aspects of school life in what is called "real-time" rather than "end-point" descriptions (Emerson, 1995, p. 60);
- · examples of documents generated in the classroom; and
- · a selective photographic record of daily life in this setting.

As an ethnographic study, data collection and analysis were ongoing during the nine months spent in the field. A sustained period of data analysis also took place after fieldwork had been completed, as emerging themes continued to be linked to the wider research literature. Data analysis took place through a method outlined by Emerson *et al.*, 1995). For the purposes of the findings outlined in this article, analysis began with a combination of close reading of the field notes and open coding in order to discover general patterns or categories in the data. This preliminary analysis was further refined through initial written memos. A subsequent more focused coding, combined with written integrative theoretical memos, then elaborated and further contextualized the core themes identified in the research data.

Findings

Cultural knowledge in the classroom that referred or related to documents

This study shows that there were social norms and institutional realities in this classroom, which resided in or formed a part of the school's "hidden curriculum" and that related directly to the creation and use of documents. This study shows that documents also reflected or represented a further layer in human negotiation, a textual rendition of more general classroom norms and institutional realities. As alluded to earlier, research by LeCompte speaks to the notion of the hidden curriculum involving students being prepared for the work world. The expected norms in an elementary school that she studied included acceptance of authority, orderliness, task orientation, and time orientation (LeCompte, 1978). The hidden curriculum in rooms 5 and 6 expressed similar concerns, and documents served as a textual representation, an articulation, of these norms and values. During the first weeks of school the teachers in rooms 5 and 6 introduced students to the general physical environment of the classroom. Students learned, for example, where their specific classes took place, where

their student work would be displayed, where the teachers' offices were, and where to keep their backpacks during the day. It was during the initial weeks of the school year that the teachers also spent the most time consciously imparting to students what documents they could expect to encounter in the classroom, as well as what these documents should look like, how they should be constructed, and where they should be kept. The particular part of the hidden curriculum that involved document work inculcated students into how to create, make use of, and understand the texts they encountered in the context of this particular institution. As such, documents were treated as distinct physical entities within the classroom, with a required job, form, structure, and location.

In the following five sections the information students learned about documents and how that information was imparted to them is presented in more detail. These findings indicate that students learned that school documents existed and were managed as distinct physical objects; that documents were entities that controlled, reflected, and organized their environment; that documents could serve as evaluative instruments; that documents could hold students accountable; and that documents had a role to play in managing social relationships within the classroom context. These assumptions were shown to be both explicitly and implicitly imparted to students during the course of the school day. At the beginning of the school year, teachers often explicitly referred to rules and regulations concerning document creation and use. As the year progressed, these references generally become more implicit. At this later point in the school year rules and regulations were represented, for example, through teachers' direct disciplining of students. Although the teachers in my study were the primary conduit of the socialization processes students themselves also engaged in this activity amongst themselves and with their teachers[3].

Documents exist and are managed as physical entities. At the beginning of the school year students were taught how certain documents should be constructed, in particular what the elements of a document should be. Of the three teachers, Ms Lyons most often imparted the general rules for constructing documents to the students:

Write your name in the upper right hand corner... In this class for the rest of the year... in this room your name goes in the upper right hand corner.

In rooms 5 and 6, this meant that all student work had to have the student's name in the upper right hand corner, generally accompanied by the day's date. Such instructions were repeated with great frequency over the course of the school year. Ms Lyons often accompanied such verbal instructions with her own drawings on the blackboard in order to show the students exactly how their page should look. Students were often told to create their own example of that page along with her. This was done in a step-by-step process, with the finished document being checked either by Ms Lyons or her aide. The finished template then functioned as a reminder to the student of how their homework or assignment should look. That children must progressively master knowledge about documents (their structure, content, and form) is demonstrated in the iterative process that was often part of document creation in the classroom.

During the course of the school year students also learned how to fill in documents and what aspects of documents to which they needed to pay attention. The documents that students most often worked with were homework cover sheets and school trip forms. With homework cover sheets, for example, students were instructed how and

where to fill in due dates, underline pertinent content of the document (such as difficult words, due dates, or specific instructions), and to demarcate places on the document where they and their parents had to provide a signature.

Students were also taught when documents should be constructed, and that there were different expectations about the content of documents. One of the first documents that students in rooms 5 and 6 were taught how to construct was the homework page. These were pages (whether written on single sheets or within a homework journal) that the students used to record the homework that they had been assigned for that day. It was always Ms Lyons who instructed the students how and where they should write down their homework and what should be recorded. During the first week of school, Ms Lyons demonstrated the appropriate structure of a homework page and writing their homework in their homework journal or on a sheet of paper became a daily routine at the end of Ms Lyons's class.

Students were taught that documents (whether their own or those created by their teachers) had certain organizational characteristics and as such needed to be managed in a way that was conducive to the classroom setup. By this I mean that documents had a specific place they should be kept (either physically within the setting of the classroom or within a more bounded personal space such as a binder), had a specific trajectory of circulation within the classroom, and that there were certain documents that should be kept together. Associated with these different values were different recommendations for whether this material should be kept or how it should be stored:

This is for you. This isn't going home, doesn't need to be signed off. See what you can recall. So don't roll them up. We're going to keep them [Instructions from Ms Lyons to the class about a pop quiz.]

These rules speak to a wider concern for classroom management where the reality of teaching a large group of students necessitates a structured and organized system within the classroom setting.

Documents are entities that can be used to control, organize and reflect their environment. As students adjusted to the new routines of the classroom, and the new expectations that came with advancing grade levels, teachers also tried to give students a sense of the structure of their day; therefore providing them with a degree of autonomy or control over their own activities. Teachers used documents to great effect in this regard. Giving students a sense of the structure of their day was as simple as the teachers putting a notice on the classroom door so that students were reminded to go to an all school assembly on Monday mornings. The instructions on the blackboard were typically the first documents that the students encountered when they entered rooms 5 and 6. The students were told that the purpose of these instructions was to help them get going in the morning. For example, in the case of Ms Lyons' class, the instructions told her students what, if anything, needed to be done in the classroom and what they needed to bring to the rug to begin the days lessons. Having these instructions meant that students did not have to wait for a sign from the teacher to know how to proceed; instead students could prepare and be ready of their own accord when class began. In rooms 5 and 6, daily agendas also laid out what students would be doing during the day. In room 6 students learned that the daily agenda tended to be a bare bones outline of the day's subjects, written in chalk on the top right hand side of the blackboard. In contrast, in room 5, Ms Lyons created a detailed paper chart with a breakdown of the

exact topics that they would be covering for the day. The chart was divided into two, with an agenda for the morning class and an agenda for the afternoon class. The groups' activities were further differentiated from each other by the use of color, which made it easier for the students to read and pick up on what they would be doing. Also conveying a sense of structure for the students was the role that the classroom bulletin board played in cueing them to what subjects and topics they would be dealing with during the school year:

[Ms Carson] asks them what they think they'll be working on this year. "You can often tell by looking at bulletin boards."

As the documents on the bulletin boards changed over the course of the school year, they reflected the ongoing official curriculum of the classroom. During the first week of class there was also a sense from the teachers that documents not only offered a degree of structure to students' lives but that they could also provide a level of comfort to students during this difficult transition period:

Ms Carson moves the schedule over and erases the blackboard. She tells them [the students] to look at the temporary schedule. She calls it a "first week only schedule." Next week she says there will be two different schedules. "It'll be on the charts so you don't have to worry" she says.

Ms Lyons also talked about the daily agenda and the instructions on the blackboard that greeted the students at the beginning of each class in this light, telling the students that "you don't ever, ever have to feel like you don't know what's going on in here".

Although all these documents were presented as giving students some sense of autonomy or control over their activities, documents, of course, also allowed teachers to control, regulate, and manage what happened in the classroom. Teachers' lists, for example, were an embodiment of a decision about which students were to work together on what projects. Another common document that students learned to interact with in room 5 was the roll book. As Jackson notes, this particular document has both a "ceremonial and practical significance" (Jackson, 1968, p. 85). In both classes it served the practical role of keeping daily track of any student absences. In room 5, Ms Lyons also used the roll book in Jackson's ceremonial sense. She did so by employing it as a means to formally greet each student at the beginning of every class. It was her method of starting the day and connecting with the students before the morning lessons even began.

Students also learned that there were appropriate times in the classroom when they could create and/or use documents and that there are other times when the teachers considered such work inappropriate. Teachers, and on occasions other students, played a role in enforcing this distinction both verbally and through gestures (such as pointing) that students came to recognize in class. The major context where document work was permissible was when the teachers were addressing the class during actual instruction. On these occasions, students were expected to listen carefully, stop all other activity, and follow along when told to do so. There were other situational contexts in which document work was expected, such as when students were working on assignments in class, whether individually or in groups. Students learned that they needed to be responsive and get any document work done quickly, and at a point in time where it met with teachers' approval. The creation and use of students' own documents (a separate but related aspect of document work that will be discussed in a

forthcoming article) was not allowed during class. Within the classroom context this rule was generally implicit rather than explicitly stated. It would appear that this rule was learned by students prior to beginning fourth and fifth grade. The students' actions and talk with regard to informal documents indicates that they understood, even if they did not always follow, this rule. Informal document work was, however, at least tacitly allowed during periods where students had earned their own free time, or when formal schooling had finished for the day (such as when the students were gathered outside on the patio for car pool).

Although documents served to schedule and control the school day, students also learned that this sense of order could be broken. It could be broken in the sense of it being disrupted and it could be broken in the sense that it could also be renegotiated. During the first week of school, for example, Ms Lyons commented that because the students had been so good she would change the order on the agenda and play speedball now instead of later. Such scenarios underscored the fact that documents were simply representations or theorizations of a person's will and were not always set in stone but could be subject to renegotiation or even manipulation after the fact.

Documents can serve as evaluative instruments. Students also learned that documents acted as evaluative instruments. Documents served as evaluative instruments in two senses. First, students were evaluated on what they wrote. The evaluation of writing that students created as part of their formal course work demonstrated the notion of student as affiliate, where scrutiny occurred around such elements as punctuation, neatness, quality of handwriting, spelling, sentence structure, spacing, documentary form, originality of ideas, and how the question was answered. However, when students were filling in everyday documents, such as quizzes and homework cover sheets, the teachers' scrutinized these documents for the presence of more specific items such as names and dates, correct positioning of information on the page, and whether all information in the fields had, in fact, been filled in.

Second, mechanisms for either informally or formally evaluating students in the classroom were also often captured and/or recorded in documentary form. Informal mechanisms (such as shadow files) were used by teachers as a means to record information about students for their own use. Formal mechanisms for evaluation had a wider trajectory and a presence above and beyond the classroom. This evaluation component in the classroom was perhaps inevitable in some form or another. As Jackson points out, tests are given more frequently at school than possibly any other environment (Jackson, 1968, p. 19). The students were of course aware, to a degree, that they were being evaluated whether through an engagement with the process itself or coming into contact with some of the everyday documents that facilitated or arranged that evaluation. Students took subject tests, reading tests and the Stanford Nines; they brought home forms for their parents to sign; and they acted as go-betweens as parents and teachers scheduled end of term and end of vear conferences. In this elementary school, however, students were on occasions shielded from others' formal evaluations of them. A case in point was the Stanford Nine results. The teachers, in handing back the Stanford Nine reports at parent-teacher meetings, counseled the parents not to share or discuss the results with their children. Ms Lyons also sometimes gave parents a script of what to tell their child about the parent-teacher conference[4].

Documents reflect notions of expectation and accountability. Part of the process of learning to be a student involved learning what teachers require of them, and learning

how to handle that requirement. Two notions or concepts that were prevalent in the classroom in this regard were expectation and accountability. Expectations about document work existed in relation to other teacher expectations. As students progressed through elementary school, an expectation of greater responsibility was coupled with a proliferation of exposure to documents as new types were introduced and as their documentary form and content tended to become more complex. To a large extent such expectancies revolved around whether or not students had actually returned documents (such as school trip forms and notes sent home to parents), whether the documents were organized in the proper manner, and whether they had been filled in or, if necessary, signed. There were also other expectations that teachers had of students which were reflected or captured by documents themselves. Teachers expected students to be responsible not only for document work but for managing other aspects of their school life – such as keeping track of their materials, getting on with others, completing their class assignments, etc. Documents were useful in managing these expectations, in holding students accountable so to speak, because they acted as tangible evidence that such expectations had been achieved or met. An example of documents being used to capture how students were meeting expectations was a system that Ms Lyons suggested, and that Mr Beckner instituted, two months into the school year. This was a chart for keeping track of how many pages of stories students had written for writer's workshop. Mr Beckner told the class that it was now "written in stone" how many pages of stories they had composed. Consequences were announced for those who didn't meet the required goals: students could be kept in at lunch to catch up on their writing or would not be allowed to use a computer to compose their stories. Students did refer to this chart. It was displayed on the blackboard in room 5 and students would use it to check their progress, at times questioning me about the accuracy of the page count beside their name. Ms Lyons explicitly stated that this chart helped to keep the students accountable. There were other instances where documents were seen as a means of tracking students' accountability: notes students had to write and send home if they didn't have their work done, and lunch lists on the blackboard which kept track of who needed to stay in at break and finish work. According to Ms Lyons their kids were successful because they [the teachers] "always check up on them."

Another mechanism for holding students accountable was Ms Lyons' record book, in which she checked off who had turned in work. She collected this information in front of the students and on occasion made comments to the class based on their performance in completing this task. A similar mechanism, but with a different structure, were the homework charts in room 6. Here, Ms Carson and Mr Beckner marked off who had handed in their homework and who had work outstanding. When students turned in work a check or a sticker was placed beside their name. These homework charts were always on display in the classroom above the blackboard. It must be said, however, that it was not always necessary for direct consequences in order for teachers to hold students accountable. Sometimes the teachers believed that the mere fact that a document existed would alert the students that they were being held accountable for an activity.

Students, and indeed their parents, were cognizant of the fact that documents were being created about them, and they were particularly aware of the fact that there were implications of having an official school record. For example, according to a school administrator the forms the school used to report incidents involving students (such as name calling and disruptions on the play ground) were once pink in color. The students disliked the fact that the forms were pink because they thought that the color of the form indicated that this document would become part of their official school record. The forms were subsequently redesigned and at the time I carried out my fieldwork were blue. During my time in the field I also overhead parents on a number of occasions checking with the teachers to ensure that certain things (particularly issues surrounding learning difficulties) would not become part of their child's official school record.

From Ms Lyons, students learned that knowing how to create and manage documents was a prerequisite for middle school. As such, she viewed knowledge about how to create and use documents in an anticipatory sense. The students were told that teachers expected them to learn how to manage documents in elementary school. This process, however, was one of striving to attain mastery. Ms Lyons warned students that by the time they reached middle school they would no longer be expected to be novices and because of this their middle school teachers would not remind them to do things. Therefore, familiarity and comfort with creating and managing documents was seen as a necessary skill in order to mark their passage from elementary to middle school. The notion that students would be held to different standards as they progressed through school was also raised by a visiting teacher. Ms Isaacs met with the class in May to talk to the students and give advice about issues they would face as they moved on to the next grade level. Two of the issues she talked about specifically involved documents. The first piece of advice was about writing informal notes in class. The second piece of advice was about the importance of keeping good records. In her talk to the students, Ms Isaacs noted that the creation of appropriate documents was a sign of students' maturity and independence:

Ms Isaacs talks about people getting crushes on one another. "Those little notes you write each other are normal," she says. She asks what happens to those notes [in the classroom]. Megan says they get lost and other people find them. Ms Isaacs talks to the class about how humiliating this can be. "Be very careful what you write down," she tells the class. Ms Carson pipes in that email is even worse. Ms Isaacs says it's best not to trust [these notes and emails]. She says it is best to tell these feelings directly. Ms Isaacs has one of the fourth grade girls come up to the teachers' desk and she pulls a calendar book out of Ms Isaacs bag. Ms Isaacs says they [students] have social plans, they need to keep track. She calls it a sign of maturity. "Keep track of yourself," she says. She also tells the girls that they can keep track of their (girls are reluctant to say the word) period. "This is a sign on independence," she says about the calendar. "This shows your parents you're growing up." She tells the class that in sixth grade they get a big planner.

Documents are social entities. Another aspect of learning to be a student involved knowing how to live with others in this community. Knowing how to live with others involved students learning how to manage relationships. Documents were important in this regard because they could serve as relationship building entities. At a very basic level, students learned that a teacher's approval could be gained by managing and using documents in a manner that made their teacher's life easier (for the teachers there was a sense that paperwork was a burden or at least a constant and sometimes overwhelming presence in the classroom). Naturally, the opposite also held true, that a student could gain a teacher's disapproval by managing and using documents in a manner that made their teacher's life more difficult. A teacher's approval, for example,

could be gained by handling documents in a manner that was not disruptive to the class (Ms Lyons talked about the students needing to be "ready" and "serious" about this), by being organized, by filling in all the necessary information to complete the document, and handing in documents in a prompt and orderly manner. This was an important skill for students to learn, and also in which to demonstrate competence. Ms Lyons, the teacher who most often dealt with the general classroom paperwork, cued the students to appropriate and inappropriate behaviors (such as rustling papers) related to documents on a number of occasions throughout the school year.

In rooms 5 and 6, document work also existed as a group activity. Students learned to manage their working relationships with each other through the construction and use of documents. As such, the use of document work in the classroom served as a representation of the school's ethos about student collaboration as a facet of learning. Particularly in science, the students worked together in groups to complete projects and in the process had to collaborate to collect and record information. In rooms 5 and 6 students also came in contact with documents that served to create and build relationships with others. Ms Carson and Mr Beckner, for example, created such documents for the students in the form of certificates. These certificates were given to each student after they completed a math or science assignment. Containing bright, cheerful and sometimes funny pictures, the certificate congratulated the student on completing their assignment. Although no doubt serving to motivate the students to turn in work, these certificates also forged a tangible and personal connection between the student and the teachers. In room 5, Ms Lyons often had students create cards for people who had helped out in the classroom on various projects or who had come to the class to talk about various subjects or issues. These were documents that allowed the students to form a bond with the recipient and express, in textual form, a range of emotions not necessarily found in other more official classroom documents.

The larger function and role that documents played in the school environment Using an ethnomethodological framework, the function and role of documents within the elementary school can also be understood in terms of what it means to be or to become a student; to be a member of a school community. Coulon has a term for the process by which one joins a new group – affiliation (Coulon, 1995, p. 55; Coulon, 2004, p. 110). Coulon states that to become affiliated to a group requires a "progressive mastery of the common institutional language". Furthermore, once people are affiliated, members "do not have to think about what they are doing... they know the implicit conditions of their conduct, and they accept the routines woven into the fabric of everyday social practices" (Coulon, 1995, p. 27):

In the language of ethnomethodology, being a member is a technical term meaning sharing the language of the group in question. It means sharing a common world, common perspectives, and ways of categorizing reality. It conveys the impression of living in a unified and uniform culture when its members are at ease in the following senses: They have naturalized and incorporated the innumerable details of daily life, including minute details of behavior, clothing, and talk that allow the members to recognize each other instantly (Coulon, 2004, p. 109).

In the context of an elementary school environment, this membership comes into being through a process which acknowledges the fact that students begin as novices. Like any new members of a setting, children are neophytes and must learn over a period of time what it means to be a student. The notion of membership and affiliation also

encompasses the idea that children are thought of as being, what has been termed, "precompetent," – "not incompetent and not fully competent but... developing into or toward competency" (Austin *et al.*, 2003, p. 51). At the beginning of a school year, the process of membership begins when students are "initiated into the new world through a process of routinization" (Coulon, 2004, p. 110).

As already demonstrated, the structured and self-contained nature of the school classrooms at River Forest Elementary were a particularly rich site for a study of students' affiliation into school life. In September, children in rooms 5 and 6 began to learn many of the rules and regulations that would shape their lives as students over the academic year. What the teachers told students that they expected of them was couched in terms of students being in school, having a good time, learning, and being responsible. For the teachers, the sharing of rules was talked about in terms of the students needing to feel okay, that the students know who they are, and that the students feel that they are in the right place. An important addition to this message was that the teachers let the students know that they would impart the necessary information to them so that the children were "ready to be students". The expectation the teachers had of students was further framed within the context of the students' progression through elementary school. In this instance, with the students becoming either fourth or fifth graders, the teachers had a greater level of expectation in terms of trusting students to do things. The actual rules and regulations imparted to the students during the first weeks of the school year covered a myriad of activities and behaviors such as the materials (school supplies and books) the students needed to have in class every day, the types of foods that were appropriate to bring to school for snacks and for lunches, the structure of the school day, how to use the pencil sharpener, where and when to look for directions, how to behave with peers, how and when to ask to go to the bathroom, and where to sit.

Coulon states that becoming an insider is a process that is found every time someone enters a new institution (Coulon, 2004, p. 110). I would argue that every time a student changes grade level, and perhaps to a greater extent when a student changes schools or makes the leap from one stage of schooling to the next (for example moving from elementary school to middle school or middle school to high school), this process of becoming an insider begins again. What has been established in this article is therefore one other and new facet of the parameters of what it means to be part of such a social group. In the process of becoming an insider, of gaining competence as a member of the school community, a student must have knowledge of document work.

While it is important to have uncovered what students learned about documents and their use at school, and the relationship of document work to the concept of affiliation or membership, it is arguably just as important to probe the larger picture that lies behind these specific inculcations. If we know the explicit norms or stock of knowledge that students learn about documents, we have to ask ourselves in a larger sense why this is so. In order to comprehend this we need to understand what ethnomethodology calls a members' "sense of social structure" (Leiter, 1980, pp. 68-105). Ethnomethodology teaches us that the stock of knowledge, the norms uncovered about documents in this study, are accomplishments that rely on this sense of social structure. According to Leiter, the sense of social structure means that people do not perceive the social world as "a set of random, unpredictable, unique events and appearances". In fact, people understand the social world to be "orderly, meaningful,

and factual" (Leiter, 1980, p. 71). It is important to note that this sense of the social world as factual is not imposed from outside but is something that members both create and sustain among themselves. The teachers at River Forest Elementary, therefore, saw their world in this light and they took that reality for granted. But more than this, I would argue that not only did they assume the immediate social world to be factual, but an analysis of the broader message of the hidden curriculum – which in a sense serves as a larger structure for that social world – shows that the school was also treated, or seen, as a rational enterprise. At River Forest Elementary, therefore, the hidden curriculum served to depict this organization as a rational enterprise.

Garfinkel's study of a psychiatric clinic showed that people's use of records could only be truly understood as a particular reflection and representation of how that organization understood or saw itself. In Garfinkel's case, making sense of clinic records meant first, understanding that organization as a medico-legal entity (Garfinkel and Bittner, 1999, pp. 186-207). Garfinkel showed that it is only in identifying and understanding the exigencies that are particular to individual organizations that documents can be fully understood. Therefore documents (and what we understand about them as part of the hidden curriculum) also have a role to play in both perpetuating and constituting this belief about rationality.

Leiter, commenting on Zimmerman's study of case workers in a public assistance agency, speaks to the notion of documents as factual objects. In Zimmerman's study official documents were treated as "objective" and "factual" (Zimmerman, 1966; Zimmerman, 1969). Leiter's report of Zimmerman's study indicates that "factual" means that the information found in official documents was "accepted without question" (Leiter, 1980, p. 79). In my experience, a more consistent notion of "factual" as it exists at River Forest Elementary is not that the information contained within documents are necessarily always believed, but that the "factual" nature of documents existed in another sense. Documents' facticity lay in "their recognizability over situated appearances". That is, that a document was factual when it was "recognizable as the same object in a variety of situations" (Leiter, 1980, pp. 78-80). Leiter says that without this property, "objects and events would be idiosyncratic appearances in a swirl of other unconnected appearances" (Leiter, 1980, p. 80). The appearance of everyday documents in the classroom supports such a thesis. Documents are treated as structural, consistent, and explicit objects. Students, in their interaction with these objects, are seen as having a trajectory of learning in which associated knowledge of documents is perceived as being both evolving and accumulative. Therefore, the idea of rationality is what the social norms of document work achieve on a grand scale, at the institutional level.

Process by which students accomplished the creation and use of documents If the school, as a rational enterprise, has been established here, this fact arguably remains hidden to many of the people who are actively engaged in its construction and replication. Ethnomethodology can provide some insights into such members' processes. Although ethnomethodology concerns itself with the role that the stock of knowledge plays in making sense of our experiences, it is more interested in the processes or procedures (ethnomethods) by which they are produced and substantiated via social negotiation. Although a true ethnomethodological investigation was beyond the scope of the study reported in this article, it is still useful to at least begin to examine how ethnomethodology could bring us beyond the norms and rules of the

classroom to an understanding of the processes by which students, for example, know how to both interact with and also to read documents (how students recognize documents as documents, and how reading documents works to activate a variety of courses of action). In order to begin to understand how knowledge of these processes might illuminate our understanding about documents, and how people interact with them, I'll turn briefly to one example, which uses two ethnomethodological concepts: the documentary method of interpretation and reflexivity.

Ethnomethodology proposes that what an object "is" is an accomplished phenomenon (Austin et al., 2003, p. 37). As Austin et al. state, "in ethnomethodology there is no predefined or predetermined sense of what an object is; instead objects are understood as being actively constituted through people's talk and actions". How people do this is through what ethnomethodology terms, the "documentary method of interpretation." How this may work in relation to documents can be illustrated by co-opting an example. In Austin et al's work, the object under study using the documentary method of interpretation is a "normal school lesson". Looking at these same exigencies, but using a different object to study, we can arrive at conclusions about the process of creating and using documents. For example, in order to perceive a "particular school document" as a "usual school document" requires that the person's knowledge of a "normal school document" is adjusted to his or her knowledge of "this school document." This reiterates the fact that "current situations themselves inform a member's knowledge of normal structures." Moreover, what is learned in this process is referential, becoming part of a participant's knowledge of "a school document". What is learned in the process also has an historical dimension in that "future occurrences of the same or similar situations will elaborate what the previously current scene 'was'" (Austin et al., 2003, p. 37). The process of constituting a document also introduces the notion of reflexivity. As Coulon states, "the social significance of objects. . . arises in the meaning that they take on in the course of our interaction." Furthermore, "even if some of these significances are stable over a period of time, they still have to be renegotiated at each new interaction" (Coulon, 2004, p. 111). By this Coulon means that rules and social norms must always be interpreted "in the process" because their meaning lies not in the rule itself but how the rule is used in action. What we learn from this, therefore, is that any meaning given to documents will only arise in the course of interaction, as meaning does not reside purely in the document itself.

Discussion

In this study, acquisition of knowledge about how to create and use information has been shown to be not so much incidental or indeed purposeful, as hidden. An as yet unanswered question in this article is why document work is "hidden" and in what sense is it "hidden?" According to Margolis *et al.* (2001) there are a number of ways of interpreting or understanding the notion of a curriculum being hidden: that the curriculum has yet to be discovered or that it has been hidden by someone. The authors also note an explanation of the concept of "hidden" put forward by Martin; that the curriculum has been revealed to some, while remaining hidden to others (Margolis, 2001, p. 1). According to Martin "until learning states are acknowledged or the learners are aware of them, however, they remain hidden even if sociologists, bureaucrats, and teachers are all aware of them. Thus a "hidden curriculum" can be found yet remain hidden, for finding is one thing and telling is another" (Margolis, 2001, p. 1; Martin,

1994, p. 162). Margolis *et al.* are also concerned with the question of why hiddenness exists or why it is necessary. The authors pose a number of questions to probe this concept. Is the curriculum simply hiding in plain sight to remain undetected? Is the curriculum itself another hiding place adding another layer of meaning that hides from us? Is the curriculum hidden behind the scenes? If this is the case, Margolis *et al.* state that it is necessary to know the "hands and mechanisms" that have done the hiding (Margolis, 2001, pp. 1-4).

It seems to me that document work is hidden in the sense that it has yet to be discovered; it is hiding in plain sight. Again ethnomethodology gives us a framework in which we can start to understand this puzzle. Coulon, quoting Garfinkel, states that reification and forgetting happen because "society hides from its members its activities of organization and thus leads them to see its features as determinate and independent objects" (Garfinkel, 1984, p. 182; Coulon, 1995, p. 25). Perhaps, therefore, document work exists within the classroom but remains hidden not because there is any conscious conspiracy for it to stay obscure but because it makes organizational sense for it to be that way.

While this research has uncovered the vital (yet hidden) role that document work played in a school environment, it has also shed light on other important and new aspects of human information behavior. An emphasis on sociological insights into the social norms and values that underlie human interaction is not novel in the context for human information behavior research (see, for example, Chatman, 1999). However, like Sonnenwald and Iivonen (1999) this research does highlight the fact that within a cultural, social, political or, in this case, institutional context, norms and cultural behaviors are often present with respect to human information behavior. What is new is that the stock of knowledge uncovered in this research has been shown to extend to a very basic unit of our analysis – information. It has been shown that people have a stock of knowledge about genres of information – both how to create that information and how to use it.

This research also confirms that this stock or cultural knowledge that people use to make sense of the world around them, while partly based on one's own experiences, is largely derived or learned from interactions with others. This was demonstrated by the K-12 students in the study who were taught by their teachers, and occasionally by other students, how to create, make use of, and understand the documents they encountered in the context of the school environment. This finding emphasizes the social contexts of human information behavior; with knowledge about information being transmitted or conveyed from one person to another.

This research also uncovered the pivotal role that knowledge of how to create and use information played in relation to notions of institutional membership or affiliation. As a child, understanding the nature of a particular genre of information and how to create it has been shown to be a fundamental part of their affiliation; moving the child from precompetence towards competence and establishing them as members of a school community.

Conclusion and future research

This paper contributes to the process of expanding the HIB research perspective by introducing the concept of information creation. Although more research will need to be done to establish to what extent these findings hold true in other settings, this study

does open up many possible avenues for future research. A primary and as yet largely unexplored question is whether, and to what extent, the stock of knowledge uncovered here also extends and has a relationship to the stock of knowledge that lies behind other human information behaviors (seeking, sharing, foraging, exchanging, interpreting, or sense making).

Like Coulon, I am particularly interested in how a novice can move from novice status to one of membership. How this process works has been the focus of this article, particularly those parts that dealt with notions of interpretation and construction of the social world within the classroom setting. As the idea of affiliation or "learning the code" also means that people should be able to "transpose the code to other situations, to innovate, to create new variations and significations for the code" (Coulon, 2004, p. 116) this is also an obvious next step in a research agenda on information creation. The notion of student resistance (what students construct and use documents for, of their own volition) and an accompanying literate under-life that flourished in a school environment is therefore the subject of a forthcoming research article. These findings will take human information behavior from the realm of how embedded social norms and realities are represented in both verbal and textual interactions related to documents, to how familiarity with such understandings allows people not only to function within the rules but also outside them.

If schooling is really about "the process of socialization to certain aspects of adult life" (LeCompte, 1980, p. 106) then it makes sense that the findings uncovered here can also be examined in the context of the adult working world (Trace, 2002). A study of information creation can shed light on whether, or to what extent, a stock of knowledge about how to create and use information is acquired in an organizational context. It may be that after many years of schooling we have a basic stock of knowledge about information creation that we can take with us to any work environment. Or it may be that certain organizational settings will require knowledge of new information genres and what can be achieved with them. If this is the case, in our HIB research we will need to continue to study how that knowledge acquisition takes place; whether the acquisition of that knowledge is incidental, purposeful or hidden; and finally, whether this knowledge is also seen as a prerequisite (or one of the prerequisites) for being considered a competent member of that particular workplace or environment.

Notes

- 1. In reputational-case selection instances of a study population are chosen based on the experience and recommendation of an expert or experts. In this study the reputation not only of the teachers but also of the students was a consideration. One of the chosen teachers in turn recommended focusing the research on fifth rather than fourth graders; advising that due to their age, length of time in school, and their established network of relationships between other students and with their teachers, these students would provide a richer and more detailed set of research data.
- 2. Of the 22 students in my study, twelve are female (Elene, Alanna, Megan, Chloe, Sabine, Michaela, Eva, Jennifer, Sarah, Abbie, Fay, and Briony) and ten are male (Nathan, Colin, Adam, Joshua, Kyle, Dylan, John, Ryan, Jamie, and Matt). Two of the students are African-American (9.1 percent), 12 of the students are Caucasian (54.6 percent), five of the students are Asian or Asian-American (22.7 percent), and three of the students are Latino (13.6 percent). Six students (27.3 percent) came from families earning \$35,000 or less per year, five students (22.7 percent) came from families earning between \$35,000 and \$59,999 per

- year, one student (4.6 percent) came from a family earning between \$60,000 and \$89,999 per year, one student (4.6 percent) came from a family earning between \$90,000 and \$119,999 per year, five students (22.7 percent) came from families earning between \$120,000 and \$249,999 per year, and four students (18.2 percent) came from families earning \$250,000 or more per year. The students in my study were born between October of 1991 and March of 1993.
- 3. On one occasion my field notes captured a fifth grade boy, Matt, imitating the teachers in this respect. "I arrive in a little before 8:30. Alanna looks the blackboard and says "we did Weekly Reader yesterday". Ms Lyons, who is at her computer says "ah, but some students didn't bring them in." Matt is up at the front of the class, sitting on Ms Lyons chair, pretending to be her. He has a *Weekly Reader* in one hand and is calling on students by name. I put my hand up, indicating to him that I haven't been called. Matt calls out "Miss Trace", and I answer "here". Sabine comes over to Ms Lyons to talk about the fact that she left her homework in the car. Ms Lyons, seeing what Matt is doing, asks him if everyone is here. Matt says "ah, I haven't put my checks..." but slides off the chair when he sees that Ms Lyons is looking at him. She calls on him good naturedly and sends him next door on an errand. Ms Lyons tells him to hurry back to teach class."
- 4. The teachers also asked me not to include the Stanford Nine results as a category on a list I had created to ask the students what they would keep at the end of the school year.

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