An introduction to the applicability of qualitative research methodologies to the field of Library and Information Sciences

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This draft, after many unexplained acts of negligence and censorship by the Chairs of the Mexican Association of Librarians and the other editors of their association journal *Liber*, during the period of 2004-2005, finally was partly published by this Peruvian journal:

Este borrador, después de muchos actos inexplicables de negligencia y censura por parte de los Presidentes de la Asociación Mexicana de Bibliotecarios, AC y otros de sus editores de la revista *Liber* de su asociación durante el periodo 2004-2005, finalmente fue parcialmente publicado por esta revista peruana:

[English abstract]

This is the original pre-print written on the 17 November 2003 which eventually got published in 2006 –see the history below--, and since the article got originally reduced by the editors of Liber of the Mexican Association of Librarians then this original pre-print includes many examples excluded there by Liber's editors. This is an introductory work to the qualitative research methodologies and methods aplied to the Library and Information Studies (LIS) field, as a way to expand the horizons of librarians so they might be able to explore different roads to improve the common telology of LIS which is basically to fuse the library (informational - cognitive) services with the needs and issues, wishes and dreams of society in its respective communities. It argues for the demystification of LIS research which is impregnated with an halo and cult almost mystical that far from motivating librarians both practical and teorethical to carry out research work in a daily basis, it plays an inhibitor role affecting not only the development of LIS research, but the

LIS profession itself; this demystification implies that research could be for everyone who wants it to. It also argues that it is necessary to study in depth the epistemological debate in LIS to promote LIS research as a sub-discipline and the education and training of LIS researchers in order to transform such a plausible activity into an attractive one that becomes even a fun thing to do. The author considers that the examples of applicabilities of qualitative research in LIS given here, but which they could not be included in the published version due to the barriers impossed by the editors of Liber the journal of the Mexican Association of Librarians, are worthwhile to be known by the community interested in these methodologies and it is for them that this original draft is open to the public, thanks to the request of a colleague.

[NB: History of the publication of this article. This was originally written on the 17 of November 2003, and then arranged and reduced on the 10th of May 2004 as requested by Saul Armendariz Sanchez, the president of the Mexican Association of Librarians (AMBAC) of that time (2003-2005) to be published in the journal of such association, Liber. AMBAC's coordinator of publications of 2004, Carlos Curiel Rivera informed the author that this article should be published in Liber in the Vol. 6, No. 2, in June 2004. However such publishing never took place, 27 months later since its publishing must have taken place)(today is 26.07.2006) neither Saul Armendariz Sanchez, nor Carlos Curiel Rivera have delivered a copy of the article to the author in any format: paper, PDF, online URL in HTML or whatever with the collated pages of the Vol. 6, No. 2. A year later, in July 2005, the new president of AMBAC --for the period 2005-2007--, Felipe Becerril Torres informed the author that such Vol. 6 No. 2 issue of Liber was still waiting to be printed. But such president stepped down his charge as president of AMBAC due to illness on the 8th of May 2006, so this article was not published during his term. On the 18 of May 2006 Hortensia Lobato Reyes replaced Felipe Becerril Torres as new president of AMBAC and until today she has not informed the author if this article has been actually published. Recently it has been shown on the Website of AMBAC that the Vol. 6 with numbers 1 to 4 has been published (see: <http://www.ambac.org.mx/publicaciones.htm>), however this article of this author has not appeared anywhere on that site and when tracked on the databases which index Liber such bibliographic record does not exist either. Therefore, with the current evidences, it is a fact tha this article was never actually published by the 2003-2005 president of AMBAC Saul Armendariz Sanchez, as it was either published by the 2 subsequent AMBAC's presidents. And today 27 months later since suppossedly was published it is highly likely that never will be published by any Liber - AMBAC's officers. Thus, the Mexican Association of Librarians requested this article exprofesso for the celebration of AMBAC's 50th anniversary through its president in turn, Saul Armendariz Sanchez, it was approved by him and the Association's publications team and peers, they promised to be published on the Liber Vol. 6, No. 2, June 2004, but they never actually published it. Finally, this article has been fully published as it was originally written in 2004 by the Peruvian journal BiblioDocencia: Revista de Profesores de Bibliotecología (Library-Teaching: journal of faculty and lecturers of library and information science) in the Vol. 2, No. 12, quarter January-March 2006, pp. 4-12. And from now on it should be cited from this definitive 2006 bibliographic record. Note written by the author on the 26 July 2006, Sheffield, UK]

Keywords: Library and Information Studies - Epistemology. Research methodologies and methods. Qualitative research. Naturalistic inquiry. Qualitative methodologies. Qualitative research methods.

[Resumen]

Este borrador es el documento originalmente escrito el 17 de noviembre de 2003 el cual eventualmente fue publicado en 2006 –ver abajo su historial--, y dado que éste fue reducido orginalmente por los editores de Liber la revista de la Asociación Mexicana de Bibliotecología, A.C., éste original incluye muchos ejemplos que fueron excluidos por los editores de Liber. Éste es un trabajo introductorio a las metodologías de investigación cualitativa aplicadas a la bibliotecología, como una forma de expandir los horizontes de las bibliotecarias y bibliotecarios a que conozcan otras vías para mejorar la teleología común de la bibliotecología que es básicamente fusionar los servicios bibliotecarios (informacionales-cognitivos) con las necesidades y problemas, deseos, sueños y anhelos de la sociedad en sus determinadas comunidades. Invita a la desmitificación de la investigación bibliotecológica la cual está impregnada de un halo y culto casi místico que lejos de motivar los bibliotecarios tanto prácticos como teóricos a realizar trabajo de investigación en forma cotidiana funge un papel inhibidor afectando no sólo el desarrollo de la investigación bibliotecológica, sino a la bibliotecología misma; esta desmitificación implica que la investigación es para todos no sólo para unos cuantos. También argumenta que se debe profundizar en el debate epistemológico en la bibliotecología como una forma de promover más la investigación y la formación de investigadores, para transformar tan loable actividad en una tal que resulte hasta divertido practicarla. El autor considera que los ejemplos que aquí se dan pero que no pudieron incluirse por las barreras que presentaron los editores de la revista Liber son valiosos para que los conozca la comunidad que se interese en estas metodologías y es por ellos que se da a conocer este borrador original a petición de una colega.

[NB: Historia de la publicación de este artículo. Éste documento fue originalmente escrito el 17 de noviembre de 2003, y luego fue arreglado y reducido el 10 de mayo de 2004 como lo solicitó Saúl Armendáriz Sánchez, entonces presidente de la Asociación Mexicana de Bibliotecarios, Asociación Civil (AMBAC) para ser publicado en la revista Liber de dicha asociación. Su entonces Coordinador de Publicaciones, Carlos Curiel Rivera le informó al autor que dicho artículo sería publicado en la revista Liber de dicha asociación en el Vol. 6, No. 2, junio de 2004. Sin embargo tal publicación nunca se llevó a cabo, pues a 27 meses de que supuestamente fue publicado (hoy es 26.07.2006) ni Saúl Armendáriz Sánchez y ni Carlos Curiel Rivera le han entregado al autor una copia de este artículo, ni en versión papel, ni en .PDF, ni un URL en línea con paginación de la versión impresa. Un año después, en julio de 2005, el nuevo presidente de AMBAC --por el periodo 2005-2006, Felipe Becerril Torres, le informó al autor que el Vol. 6, No. 2 de Liber estaba aún pendiente de publicar. Dicho presidente dimitió el 8 de mayo de 2006 a la AMBAC por motivos de salud y el artículo siguió pendiente por publicarse. El 18 de mayo de 2006 Hortensia Lobato Reyes sustituyó a Felipe Becerril Torres como nueva presidenta de AMBAC y hasta el día de hoy no le ha informado al autor si dicho artículo se haya publicado efectivamente. Recientemente se ha indicado en el sitio Web de la AMBAC que se ha publicado dicho Vol. 6 de Liber con los números 1 al 4 (véase: <http://www.ambac.org.mx/publicaciones.htm>), sin embargo el artículo del autor no aparece y al intentar rastrearlo en bases de datos que indizan Liber tampoco se encuentra dicha referencia. Por lo que con las evidencias actuales, es un hecho este artículo nunca fue publicado por el presidente del 2003-2004 Saúl Armendáriz Sánchez, ni por los siguientes dos presidentes de AMBAC, y a 27 meses de que supuestamente se publicaría es altamente probable que nunca se publicará por AMBAC. Así, AMBAC solicitó este artículo con motivo del 50 aniversario de la AMBAC por su presidente de entonces, fué aprobado, pero nunca publicado. Finalmente, éste ha sido publicado íntegro tal y como se escribió en el 2004 por la revista peruana BiblioDocencia: Revista de Profesores de Bibliotecología, Vol. 2, No. 12, trimestre enero-marzo 2006, pp. 4-12. Y así es como de

ahora en adelante deberá ser citado. Nota elaborada por el autor el 26 de julio de 2006, Sheffield, Reino Unido]

Palabras clave: Bibliotecología - epistemología. Métodologías, métodos de investigación. Investigación cualitativa. Investigación naturalística. Metodologías cualitativas. Métodos cualitativos de investigación.

1. Introduction

This is selective literature review report. The objective was to find real applications of qualitative research methodology to the assessment or measurement of library and information science (LIS) services.

For the retrieval of the documents we used only the facilities of the University of Sheffield Library. Thus we only retrieved peer reviewed journals and indexes and abstracts databases. As we speak both Spanish and English, we searched also for the major Hispanic American indexes and OPACs at the Latin American largest University Centre Research of Librarianship based at the Universidad Nacional Autónoma de México. In a searched ran on November 12, 2003 in the CLASE index (Citas Latinoamericanas en Ciencias Sociales y Humanidades : Latin American Citations on the Social Sciences and Humanities) we found only 41 records containing the terms qualitative research as defined in our report, but none of them related to LIS. In INFOBILA index (Información Bibliográfica Latinoamericana : Latin American Bibliographic Information) we only found 3 records containing the pertinent terms in question; 2 were of books from English to Spanish translations and the other one written in Spanish of the internationally indexed Mexican journal Investigación Bibliotecológica (Library Science Reserach). But we could not obtain a physical copy of them so we did not use them for this report. Searches were also ran at the internationally indexed journal Anales de Documentación (Annals of Documentation) from University of Murcia in Spain, but unsuccessfully.

As we began our search, we faced the problem of the lack of universally accepted definitions of qualitative research methodology itself. Therefore we committed to the task to do a deep analysis of the terminology and we ended up with a sound taxonomy of methodologies and methods of qualitative research. We must note that if would not have passed through the hard process of defining all the terms employed in this report, we could not have been able to make a clear and pertinent analysis and synthesis of the applications of this methodology. We included a brief discussion on the matters of low versus high generality of the results of the qualitative research methods.

The applications of this methodology in LIS is shown in a succinct three columns table: Methodology, Applicability and Location. In methodology just mentions the broader or narrower methodology. When was hard to analysis the broadest term: qualitative research was used. Applicability scanned all the possible uses of this methodology, whether the content was purely for qualitative research or a combination with quantitative. Location shows the organization, and geographical location the researched was carried on at, and where different authors from different countries appeared, a geographical note was included in the applicability section; references to authors are included for cross-references with the sources used in the report.

Hence, from 26 applications of qualitative research methodologies reviewed these are the results ranked by methodology used: 7 used case studies, 4 used discourse analysis, 1 ecological, 2 ethnographies, 1 ethnomethodology, 2 focus groups, 2 grounded theory, 1 hermeneutics, 4 qualitative research as such, and 1 social audit. Notice that we did not

use methods here, for methods are a level of analysis included under methodology as a subcategory. As for the origin of authors: 2 were from Australia, 1 from Brazil, 2 from Finland, 1 from Kwait, 1 from Malasya, 13 from UK and 6 from the USA.

2. Discussion and definitions of qualitative research

2.1. Discussion

Our main discussion about the use of qualitative research methods has to do with the problem or question of research. Westbrook (1994:242) argues that "the research problem must determine the research approach and the methods employed. No single approach fits every problem; a choice must be made. Some areas of LIS research are so new, so complex, or so unexplored that scholars are looking for additional or different approaches." Wilson (1981:244) goes further, he argues "that field research is not necessary in every investigation. Where background information and experience is otherwise available, where false categorization can be avoided and where clear theoretical formulation already exist, field research may be an unnecessary luxury."

Another issue to bear in mind when we decide to choose a methodology to carry on in LIS has to do with the low or high generality of the applicability of the results when using qualitative research. One strong critique found in the literature against the qualitative research methodology has to do with its low generality in its results. Wilson (1999:347-348) applied a model of influencing factors where he classified the trends of research finding that research using qualitative research has basically low use of high technology and low generality. On the other hand, on the qualitative research methodology, Schofield (2002) counter arguments that "one's purpose is not to support of reject a specific a priori theory but to discover, using an approach that is open as possible, what is actually happening in a site that was chosen with the assistance of a particular theory, problems related to internal validity are somewhat mitigated."

2.2. Discussion and definition of qualitative research methodology

Defining qualitative research methodology it is not an easy task since there are many variations of what researchers from the social sciences and the Library and Information Science (LIS) field in particular call their methodologies. This may be so due to what Carlin (2003:4) argues that LIS field has appropriated all of its research methodologies from other fields, with the exception of bibliometrics or citation analysis. Before we go on it is necessary to define the term *methodology*. According with the levels of analysis in social research by the sociologist David Silverman (2000:77), he suggests a taxonomy where the more general level of analysis is a *model*, followed by *concepts, theories, hypotheses, methodology, method*, and being *findings* the smallest one; a deductive chain: *model --> concepts --> theories --> hypotheses --> methodology --> method --> findings*. Thus, according with his levels of analysis:

"A methodology defines how one will go about studying any phenomenon. In social research methodologies may be defined very broadly (e.g. qualitative or quantitative) or more narrowly (e.g. grounded theory or conversation analysis)" Silverman (2000:7).

And how is qualitative research methodology broadly defined? Let us begin with the well sounded definition of Mellon (1990:2, 3, 5):

"Other terms that have been used to indicate this type of methodology include qualitative, ethnographic, phenomenological, ecological, documentary, and case study. Naturalistic inquiry has been chosen because it is the most descriptive—inquiry that attempts to capture the natural setting in which it is conducted.

...Naturalistic studies, on the other hand, focus on viewing experiences from the perspective of those

involved: patrons, librarians, administrators. The intent is to understand why people in a library setting behave as they do. To do this, naturalistic researchers use procedures from areas that have traditionally concentrated on in-depth study of people: the ethnographic techniques of anthropology and the qualitative methods of sociology.

... Naturalistic inquiry focuses primarily on describing the characteristics of a social phenomenon. The aim is understanding the phenomenon rather than controlling it.

... The intent is to understand the situation as it exists in one particular setting rather than predict what might happen in similar situations."

Thus, Mellon encapsulates all other synonyms in a single definition: naturalistic inquiry. Westbrook (1994:241) agrees with Mellon and shows the same idea:

"Naturalistic work seeks out all aspects of that complexity on the grounds that they are essential to understanding the behavior of which they are a part."

For Mellon naturalistic inquiry is the inquiry opposite to the traditional positivist inquiry or quantitative research, but she does not go further in clarifying the terminology. She calls naturalistic inquiry as an inquiry opposite to the positivist one, the same as a methodology (Mellon 1990:1). Westbrook (1994:242) goes further, she explains the taxonomy better:

"When defined as a research paradigm rather than as a research method, naturalism is an approach that posits reality as holistic and continually changing so that theory formation becomes an ongoing process designed to understand phenomena. As such, the naturalistic approach should provide much needed insights into information seeking experiences."

But neither Mellon, nor Westbrook clarify precisely that a naturalistic inquiry is a methodology as defined above by Silverman. Thus, Mellon's naturalistic inquiry or Westbrook's naturalistic paradigm or approach is the qualitative research methodology in its broadest sense opposite to the positivist methodology. This lack of a precise definition of terms may not be as simple as it may look. For instance, *naturalistic inquiry* as defined by Mellon did not give us any positive results when we searched for books in OPACs, or journal articles or citations in electronic indexes and abstracts or electronic journals; neither as a keyword in any field, nor as a descriptor. From all the library materials retrieved the terms *qualitative research* appeared the most; even Westbrook's article has the terms *qualitative research* in the title. Thus, as a matter of clarity of defining our terminology for our reader, the term we use in this report is *qualitative research; qualitative research methodololgy*. Therefore the most suitable definition of *qualitative research* from the literature review we found it in Gorman and Clayton (1997:23):

"Qualitative research is a process of inquiry that draws data from the context in which events occur, in a an attempt to describe these occurrences, as a means of determining the process in which events are embedded and the perspectives of those participating in the events, using induction to derive possible explanations based on observed phenomena."

Even though this definition is quite clear, note that *process of inquiry* is used here as *methodology* as defined by Silverman above.

3. Defining narrower qualitative research methodologies
3.1. Discussion.

If finding general universal definition of qualitative research methodology in its broadest sense was rather difficult, finding definitions for narrower qualitative research methodologies may be difficult too.

There is confusion between methodology and methods. As we mentioned above, Mellon listed these terms as synonyms of her naturalistic inquiry (our qualitative research methodology): qualitative, ethnographic, phenomenological, ecological, documentary, and case study. Fidel (1993) "after noting the absence of a universally agreed-upon definition of qualitative research, lists the many names given to qualitative research: ethnography, anthropological methods, interpretative research, field research, fieldwork, grounded

theory research, naturalistic inquiry, observation, participant-observer method, and case-study method." So one can see that researchers do not agree and they use arbitrarily methods as methodology and vice versa.

As to intent to untangle this confusion we will distinguish the broadest qualitative research methodology term employed here and discussed above, from the narrower methodologies and methods and classify them accordingly. Silverman, as we mentioned above, classifies *grounded theory* and *conversational analysis* as narrower qualitative research methodologies. Another sociologist, Martyn Denscombe, argues that *observation* is a method and not a methodology as Mellon classifies it. (Denscombe, 1998:139). Thus, as to not incur in terminology confusion as we have found in our report, Kim (1996) "presented a relatively comprehensive listing of research strategies" as to classify our narrower qualitative research methodologies, these are: a) *case study, b) biographical method, c) historical method, d) grounded theory, e) ethnography, phenomenology, ethnomethodology, and other interpretative practices, f) symbolic interactionism/semiotics, g) sociolinguistics, discourse analysis, ethnographic semantics, ethnography of communication, and h) hermeneutics, interpretative interactionism.* Glitz, Hamasu & Sandstrom (2001) discuss the *focus group methodology.* Perhaps the newest narrower qualitative research methodology is the *social audit,* developed by Linley & Usherwood (1998).

3.2. Narrower qualitative research methodologies
There may be some other methodologies, but these are the most well known, structured, or developed by the time of writing this report:

3.2.1. Biographical method. Studies that report and document life history and stories of persons from birth to present or for particular segment of time. (Kim, 1996).

3.2.2. Case study. In-depth, detailed study of one subject, that subject being one person, one specific group composed of many people, or one organization composed of many subgroup; defined by focus on specific single case and not wide range of qualitative strategies likely to be employed (case studies of more descriptive, less interpretative nature included here). (Kim, 1996).

3.2.3. Ethnography. Studies dealing with cultural description based on researcher's participation in daily life of defined cultural group over extended period of time; describes culture as shared knowledge and commonsense understanding of members of group that determine appropriate behavior in that cultural setting. (Kim, 1996)

3.2.4. Phenomenology, ethnomethodology, and other interpretative practices. Family of interpretative strategies that investigate those everyday actions, practices and procedures by which individuals give meaning to and make sense of daily life experiences. (Kim, 1996)

3.2.5. Focus groups / discussion groups methodology. The focus group is a qualitative research technique, originally developed by social scientists, to gather data on the opinions, perceptions, knowledge and concerns of small groups of individuals about a particular topic. The technique involves questioning and listening within the small group setting, to allow participants to describe their experiences in their own words. (Glitz, 1998:1).

3.2.6. Grounded theory. Grounded theory seeks to generate theoretical statements and, ultimately, complex theories based on empirical evidence, although it can be used in different ways and reach various degrees of complexity. (Strauss, 1987).

3.2.7. Hermeneutics, interpretative interactionism. Blending of strategies of phenomenology and symbolic interaction to understand meaning of complex social interactions from perspective of daily life experiences and to use this interpretation to understand social, political, cultural, economic, historical context that frames this experience. (Kim, 1996).

3.2.8. Historical method. Studies that seek to describe and understand past events and human experiences through collection, evaluation, analysis, and interpretation of historical data. (Kim, 1996)/

3.2.9. Social audit. The social audit has been proposed as a means enabling "sensible measurement" of the complex public sector outcomes... (Linley, R. & Usherwood, B., 1998:9).

3.2.10. Sociolinguistics, discourse analysis, ethnographic semantics, ethnography of communication. Strategies that seek to understand form, process, structure, and rules of conversations as well as social and cultural context in which these conversations occur. (Kim, 1996).

3.2.11. Symbolic interactionism/semiotics. Strategies that seek to understand form, process, structure, and rules of conversations as well as social and cultural context in which these conversations occur. (Kim, 1996).

4. Defining qualitative research methods
4.1. Discussion.

What are the qualitative research methods? According with the levels of analysis used by Silverman (2000:7), methods are defined in general as:

"...methods are specific research techniques. These include quantitative techniques, like statistical correlations, as well as techniques like observation, interviewing and audio recording."

Note that Mellon, mentioned above, confuses ethnographic methodology as a method when she mentions "the ethnographic techniques of anthropology" when a specific research technique is the definition of method.

4.2. Definitions of qualitative research methods

There may be more methods, but according to the literature reviewed these are the methods we found, or those terms we believed they fit best in the methods level of analysis and not in other. We must add a caveat note that these methods are not exclusive of qualitative research. As we stated above, what determines the methods to use is the methodology which can research in a most suitable fashion our research problem in mind; once we have decided which broader or narrower methodologies we will use, then methods should come along fitting smoothly.

4.2.1. Documents / literature review. All investigations that lay claim to being 'research' should start off with a literature review. The literature review, then tries to establish the existing state of knowledge in the area of proposed research and, drawing on this, to set out research questions which will help to advance our understanding of the topic.

(Denscombe, 1998: 158).

4.2.2. Interviews. The use of interviews normally means that the researcher has reached the decision that, for the purposes of the particular project in mind, the research would be better served by getting material which provides more of an in-depth insight into the topic, drawing on information provided by fewer informants. (Denscombe, 1998:110).

4.2.3. Observation. It draws on the direct evidence of the eye to witness events first hand. It is based on the premise that, for certain purposes, it is best to observe what actually happens. (Denscombe, 1998:139).

5. Applicability of qualitative research methodologies to LIS scenarios

	Methodology	Type of service assessed	Source
2	Case study and ethnography.	As a support to run effective large-scale quantitative surveys for the Project INISS by the National Institute of Social Work.	University of Sheffield, Sheffield, UK (Wilson, T. D., 1981).
3	Case study.	Information culture in the Finnish insurance industry.	Abo Akademi University, Finland (Widén-Wulff, G., 2000).
4	Case study.	Developing of a qualitative research solution to evaluate the impact of IT on information activity in academic research.	King's College London, London, UK (Barry, C. A., 1995).
5	Case study.	Evaluation of the reader development and its impact on performance measurement in the public library sector.	University of Central England, Birmingham, UK (Train, B. & Elkin, J., 2001).
6	Case study.	User behavior in information seeking for the Joint Information Systems Committee (JUBILEE).	University of Northumbria, Newcastle upon Tyne, UK (Coulson, G., Ray, K. & Banwell, L., 2003).
7	Case study.	To give methodological foundation for qualitative research in library research.	University of East Anglia, Norwich, England, UK (Stenhouse, L., 1981).
8	Case study.	To assess intermediate and final outcomes of British public libraries as to measure their social, economic, educational, and cultural impact on both individuals and their community in order improve their development on some of these areas: well-being, cohesion, inclusiveness and safety, local image and identity, enpowerment, educational and ICT literacy and others.	University of Edinburgh and Local Government Association, London, UK (Coalter, F., 2001).
1	Discourse analysis.	To study the culturally-based users' perceptions of library service quality through a large-scale Web-based surveyed ran by the Association of Research Libraries in the USA using LibQUAL(tm) qualitative software.	Texas A&M University, College Station, Texas, USA (Lincoln, Y. S., 2002).

9	Discourse analysis.	Examination of information behavior in its social context based on Michel Foucault theories.	University of Technology, Sydney, Australia (Olsson, M., 1998).
10	Discourse analysis.	To give methodological foundation for qualitative research in library research.	University of Aberdeen, Scotland, UK (Oldman, D., 1981).
11	Discourse analysis.	To analyze qualitative interview data from cultural regularities of the LIS phenomena studied, rather than from individuals' as to draw up conclusions at a generalized or macrosociologic levels.	University of Tampere, Tampere, Finland (Talja, S., 1999).
12	Ecological.	Information-seeking behavior by blind and sight impaired users on the Internet.	Monasch University and Charles Sturt University, Australia (Williamson, K, Schauder, D., Bow, A, 2000).
13	Ethnography.	Discusses the use of qualitative methodologies and methods.	The Open University, England, UK (Hammersley, M., 1981).
14	Ethnomethodology.	The study of online communities (cyber streets).	Brigham Young University, Provo, Utah, USA (Thomsen, S. R., Straubhaar, J. D. & Bolyard, D. M., 1998).
15	Focus group.	To plan programmes based on users' information needs at the National Network of Libraries of Medicine in the Pacific Southwest Region in the USA.	University of California Los Angeles, Los Angeles, USA (Glitz, B., Hamasu, C., & Sandstrom, H., 2001).
16	Graphical methodology to support qualitative analysis.	Interactions of users with medical resources on the Web.	University of Sheffield, Sheffield, UK (Lucas, H., 1999).
17	Grounded theory.	Scanning process of environmental information by the Portuguese chemical industry.	National Institute for Engineering and Industrial Technology, Lisbon, Portugal and University of Sheffield, Sheffield, UK (Correia, Z. & Wilson, T. D., 1997).
18	Grounded theory.	The impact of access to electronic and digital information resources on learning opportunities for young people.	University of Northumbria, Newcastle, UK (Pickard, A.J., 1998).
19	Hermeneutics.	Inscription and interpretation of text of virtual (Internet) communities.	Florida State University (Burnett, G. et. al., 2003).
20	Phenomenographic learning theory.	Information-seeking behavior and use of information in learning contexts.	Hogskolan i Boras, Boras, Sweden (Limberg, L., 1999).

21	Qualitative research.	As an alternative to draw up diagnostics to develop strategic planning in Brazilian public libraries where literariness, critical reading, users' reading as writer, users' reading as citizen-reader-writer were assessed more than simple literacy.	University of Brasilia, Brasilia, Brazil (Suaiden, E. J., 2003).
22	Qualitative research.	To explore strategies and behavior of public library users searching for information in OPACs	University of North Carolina, Chapel Hill, NC, USA (Slone, D. J., 2000)
23	Qualitative research.	To study the information need, information seeking behavior and information flows of health professionals, social workers and staff who work in the provision of services for people with mental illness.	Blackpool Victoria Hospital, Blackpool, Lancs, UK (Blackburn, N., 2001).
24	Qualitative research.	To measure the trends of needed capabilities and professional development strategies for the future information professionals in Malaysia.	Kwait University, Safat, Kwait and International Islamic University, Selangor, Malaysia (Rehman, S. U., Baker, A. B. A., & Majid, S., 1998).
25	Qualitative research.	To support the use of qualitative methodologies and methods.	University of Michigan, Ann Arbor, Michigan, USA (Westbrook, L., 1994).
26	Social audit and focus groups.	To assess the service of adult basic skills education supported by public libraries.	University of Sheffield, Sheffield, UK (Train, B., 2003).

6. Conclusions

The applicability of qualitative research methodology to LIS scenarios shows an increase since the 1980s where some of the sources used for this report where found. In general terms applications touch most of all the traditional types of libraries like academic, public, corporate, specialized, and school. As for the problems of research the application goes from theoretical discussion of the methodologies per se, to other topics like: information seeking behavior, online and Web based communities and environments, health sciences, human resources, assessment of ICT technologies, educational and ICT literacy, measurement of outcomes in the public libraries, reading development in public libraries, literacy and literariness strategies in public libraries, and others.

Further research needs to be done to sort out the low generality scope of qualitative research methodologies in LIS as it has been discussed. Also further research needs to be done regarding the selection and applicability to LIS of a well balanced use of methodologies and methods, both qualitative and quantitative, according to the LIS problems to be researched, rather than be based on ideological or political considerations as Hammersley (1981:210) suggests.

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