

A reflexive action research project to investigate the development of an educational public health website with an integrated online advice service

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Abstract

This study investigates the development of a practitioner-led, online sexual health and relationship skills website called Sex-and-Relationships¹ with the use of professionalizing action research. The case study project was researched over a two-year period with the researcher being one of two co-authors.

Action research was chosen as a qualitative research methodology as it looks for contextualised, practice-based knowledge through analysing single cases and implementing change. Data, which was collected for this study, included both qualitative and quantitative data such as visitor numbers, service users demographic details and opinions via self-selected web-based surveys, details of the ongoing dialogue between project partners and the researcher's own reflexive considerations. The study was further complemented by the use of a blog as an online research journal. Data analysis was completed through simple statistical measurements for quantitative data and qualitative content analysis for qualitative data. Analysed data became part of the ongoing meaning-making process within action research influencing subsequent data collection and action steps.

The results of the action research process showed that the two co-authors were able to build a successful online health promotion project over the two-year period. An integrated online advice service via email was used by visitors and became a central feature of the development process as an ongoing information needs assessment of service users. Average daily visitor numbers after two years of development were comparable to similar online health education projects which were developed by bigger teams and involved substantial budgets. Factors, which were found to be essential for the development process, were a supportive working relationship between co-authors, the ability to gain feedback from service users through email queries and surveys, an ongoing engagement with the online environment, notably the requirements set by the search engine Google, ongoing maintenance of the website and continuous practitioner input. The project's sex-positive approach was fully supported by feedback from service users. This study concludes with a discussion of the implications of the results for online health promotion, evaluation of health promotion websites and practitioner involvement.

¹ URL: <http://www.sex-and-relationships.com>

Declaration

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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Dedication

To my much loved Tony. The only thing I regret about this work is the many, many hours I didn't spend with you.

And to Rod, who has been such a faithful companion on the way. I couldn't have wished for a better one.

I also want to give thanks to the following people in alphabetical order Clare Lennie, Helmut Stummer, Jane Read, Kieran Nolan, Margareta Kunst, Mark Widdowson, Steff Oates, Terry Hanley, William West. Thanks for being there for me.

1.0 Introduction

Abstinence fails

Talk about a policy backfiring. The US government's emphasis on abstinence and faithfulness to prevent the spread of HIV may be leading to an upsurge in infection rates, delegates were told on Monday at the International AIDS Conference in Toronto, Canada. In 2003, the US government pledged \$15 billion over five years to fight AIDS in Africa and the Caribbean. Of the 20 per cent earmarked for prevention, it ruled that at least a third must be spent on promoting abstinence outside marriage. Abstinence is the key element of the "ABC" programme - Abstain, Be faithful and use Condoms - but for many at high risk, the A and B parts don't help. Instead, they siphon funds away from provision of condoms, the one element that might work. Jodi Jacobson at the Center for Health and Gender Equity, a non-profit organisation based in Takoma Park, Maryland, says that in some countries as much as 70 per cent of the prevention budget is spent on encouraging people to abstain from sex or be faithful. In Uganda, she says, where such policies account for 60 per cent of prevention dollars, there are hints that the strategy is failing and the number of infections is growing. Congress woman Barbara Lee from California is trying to overturn the abstinence requirement by introducing a law designed to help women and the young avoid infection. "We want to get rid of that policy, eliminate it", she says. "Let sound, science-based policies dictate the way we spend our money". (New Scientist, 19th August 2006: 6)

1.1 An introduction to online health promotion

Over the last 15 years the internet has become a significant part of many people's lives in the Western world and beyond. It has revolutionised access to information for those of us who can go online. The internet is a two-way medium of communication which allows for nearly instantaneous transfer of large amounts of data between networked computers (Kendall 1999). The world wide web, which constitutes a subsection of the internet, contains billions of web pages on all imaginable topics offering information and various communication channels to internet users. Web editing software is available which requires very little technical knowledge, enabling each individual internet user not only to be a passive recipient of information, but to be an active participant and editor of the vast and ever-changing online world (Jones 1999b). The internet can be accessed at very low cost through different routes such as internet cafés, libraries or personal dial-up or broadband connections. Authoring and displaying, or hosting as it is called, one's own website is also

comparatively cheap, costing from about £50 per year. With some basic skills, access to technology and a minimal budget anybody can become a web editor, offering information to over 1.2 billion internet users worldwide (Computer Industry Almanac 2006).

It is not surprising that health promotion specialists have been enthusiastic about the possibilities the internet offers (Neuhauser and Kreps 2003), for example, by calling the budding field of online health promotion an 'eHealth revolution' (Noar et al 2006). The internet could be the ideal medium to offer cost effective, efficient and convenient access to health information to everybody (Duffett-Leger and Lumsden 2008). It could help to equalise access and help to close the gap between those who do access services and those who do not or cannot due to their location, mobility issues, socio-economic factors and discrimination. On the other hand, access to the internet is not uniform throughout the general population even in the Western world. A digital divide has clearly existed (NTIA 1999) in the past and is persisting along socio-cultural and gender lines today (Dittmar et al 2004). Additionally, one must take into account that internet access is far beyond the daily lives of millions of people globally who live without electricity, education or health care on a subsistence level.

Nevertheless, the internet has great potential for health promotion if people can go online and health education may indeed become revolutionised by it. However, additional concerns persist even after people are online. The fact that anybody can edit and display information about health topics online has presented health promotion specialists with concerns about the quality and neutrality of the available information (Rand Corporation 2001). However, despite the professionals' concerns many people use the internet to search for health information with health having been the fourth most commonly searched area on the internet in 2000 (Cyber Dialogue 2000). Despite the reach and possibilities of the internet, it is not yet used to its full potential by professionals for the provision of health information, interactive health advice or social support (Duffett-Leger and Lumsden 2008).

The combination of human sexuality and the internet has resulted in a passionate encounter, resulting in sexual content becoming ubiquitous online. This synergy has offered great concern to professionals (Fisher and Barak 2001, Cooper and Griffin-Shelley 2002) as well as afforded individuals new possibilities for sexual exploration and expression (Döring 2000, Podlas 2000, Cooper et al 2002, Leiblum and Döring 2002, Schauer 2005). Cooper

(1997) suggested that the internet is able to amplify emotional reactions to sexuality due to what he called the triple A-engine, namely its accessibility, its affordability and the possibility for complete anonymity online.

The features of the triple A-engine also make the internet ideal for health promotion materials and especially for sexual health promotion and sex education given the private status assigned to sexual health in many cultures (Barak and Fisher 2001). Few projects exist which provide sex education for adults online and research into their development and maintenance is sketchy (see literature review). Moreover, we know very little about how internet users interact with such projects. Some researchers suggest that due to the scarcity of good, high quality sex education programmes on the internet it is actually the pornographic industry which currently provides 'sex education' online (Cooper et al 1999, Fisher and Barak 2000).

Given the precarious nature of sexual health worldwide (Bancroft 1989, Donovan 2004, New Scientist 2006, Low et al 2006, Wellings et al 2006, Bearinger et al 2007, Carvel 2007) and in Britain (Department of Health 2001 and 2004) an online sexual health and relationship skills website seems timely. However, due to a lack of knowledge about online health promotion especially in the field of sexual health it is unclear at the moment what would constitute best practice. The ease with which websites can be designed and displayed masks the fact that very little is known about how such health promotion materials need to be developed to use the intrinsic features of the internet to best advantage, what type of information may be required by users, and how users may interact with such a website.

The following study is designed to contribute towards addressing these questions through an investigation into the development and running of a case study project called Sex-and-Relationships using practitioner-led, professionalizing action research methodology (Hart and Bond 1995).

1.2 The case study project 'Sex-and-Relationships'

The project Sex-and-Relationships had been running for about 2 years at the start of this study in January 2006 in a rudimentary form. The project has been set up by 2 people, the author being one of them. The initial idea was to team up as male and female co-authors

and to write easily accessible texts on sexual health and relationship issues to offer preventative public health information and social interventions for people on the internet. The project appealed to the present author's political agenda of inclusive and global feminism. Additionally, the project opened up opportunities for me to use my professional skills as a registered psychotherapist to support people beyond my immediate vicinity.

With its global reach and anonymous access Sex-and-Relationships may be able to offer advice services to people who may not otherwise be able or willing to access this type of service. By focusing on sexuality and relationship issues we hoped that the project would benefit from the power of the internet to deliver information and advice anonymously on difficult emotional issues. Additionally, an online health promotion project requires comparatively little ongoing expenditure except time, bringing it within reach of individual practitioners or small grass roots organisations. It can also earn revenue via affiliate programmes and advertising making it independent from grants whilst offering high quality information for free on the internet.

1.2.1 Contribution by Rod, co-author of Sex-and-Relationships

My perspective on the beginnings of Sex-and-Relationships:

As I recall, the Sex-and-Relationships website grew from a combination of ideas generated by us, Gudrun and Rod Phillips (a nom-de-plume), when we discussed the possibility of providing sexual information and/or a counselling service on the internet. The model for this kind of website in our experience was a male sexual health website written by myself which had at that time proved extremely successful, with over 10 million visits between October 1999 and July 2005.

This original male sexuality website had in turn grown out of a perceived need to inform men about hypospadias, a little understood but comparatively common (one in 125 male births) congenital malformation of the penis. This information service was extremely successful, being set up at a time when little information was publicly available on the subject. However, an offer to answer email questions led to a large number of enquiries not just about hypospadias, but about sexual relationships in general, male sexuality and emotional issues. At this time (1999/2000) such online sexual advice or information services were certainly numbered in single figures.

A number of factors came together to promote the development of Sex-and-Relationships in 2004:

- 1) My own conviction that sexual information of high quality was certainly needed, as demonstrated by email questions of extraordinary ignorance about the most basic of sexual issues, especially from America, where right wing politicians had promoted abstinence programmes rather than sexual education programmes.
- 2) My desire to continue providing some kind of sexual education/information/advice/counselling service by email.
- 3) My desire to further expand the scope of the sexual information websites, which I was running to include advice and information geared to a female audience.
- 4) The possibility of making a reasonable income stream from a successful website.
- 5) The fact that Gudrun had expressed a desire to participate in any such scheme, broadly to promote or benefit from items 1 to 4 above. Since Gudrun was a practising psychotherapist, whereas my own experience of acting as a psychotherapist was limited to the occasional men's group, dealing with specific sexual issues, it clearly added both credibility and stature to the venture to combine our strengths and interests in writing this website.

1.2.2 Researcher's perspective on the beginnings of Sex-and-Relationships

I had met Rod in 2000 on a psychotherapy workshop. We slowly became friends and over time I learned more about his professional circumstances, namely that he was running a website on male sexuality which he had developed himself. He could afford to go to more workshops than I could, so I was assuming he was doing well financially with his rather unorthodox job. My professional career progressed and I started a successful psychotherapy practice and worked towards my final exam for accreditation. However, I was also considering other options for my future, which would allow me to work without having to be present with clients or to be in the same geographical location all the time. Having arrived in Britain only 6 years previously, I had always hoped that it would only be the first stop in an overall nomadic lifestyle. Unfortunately, the latter is generally quite incompatible with being a reliable and committed psychotherapist.

Whilst pondering this dilemma, I suddenly had the idea that I could ask whether Rod would want to run a health promotion website together with me which would give me a way of working with the skills I had as a psychotherapist, but without the geographical restrictions. To my amazement, Rod was delighted and we quickly agreed that the field we could both

best join in together would be general sexual health and relationship skills for men and women. Our terms would be to work as equal partners, distribute any potential profit from the site equally between us and develop the site as a team of male and female co-authors. We also decided to present ourselves clearly as male and female on the website and that our texts should indicate the respective author to create two distinct, gendered story lines.

Once we had agreed on our joint venture, I started to realise the opportunities such a project could open up beyond my own personal perspective. I was very excited by the possibility of supporting and encouraging women worldwide. It appealed to my political desire for greater equality and self-determination and I hoped that Sex-and-Relationships would become a tool that could allow individuals to change their circumstances for the better and offer encouragement and practical knowledge for physical and emotional wellbeing.

Having acknowledged the possibilities for Sex-and-Relationships, I wanted to make sure that my approach to it would be rigorous, so that we arrived at a high-quality, professional website which could compare favourably to other online health promotion projects. I therefore decided to research the development of Sex-and-Relationships within the supportive structure of a PhD programme. As the website was only in its infancy and any research would be conducted by myself as a practitioner-researcher, professionalizing action research methodology (Hart and Bond 1995) seemed most appropriate to investigate the continuous work on the service. My hope for the research project was that it would benefit the development of our particular project and that beyond that Sex-and-Relationships would also serve as a case study on how to develop a successful online health promotion website on a very small budget and with limited manpower. My findings could prove useful to grass roots organisations, such as women's groups in the third world when developing their own web presence.

1.3 Introducing Rod, co-author of Sex-and-Relationships

As co-author and project partner, Rod is an important element in this research project. Therefore, I would like to hand over the word to him to let him introduce himself to the reader:

I'm Rod, working with Gudrun on the Sex-and-Relationships project, providing technical input and also some material for the site. I am 49 years of age, in a stable relationship with a woman, and living in England. I started running websites 10 years ago, using some limited IT experience gained in previous employment as an accountant to get a fledgling business off the ground. I have no formal training in website construction or IT and my knowledge has been accumulated through experience.

Strangely enough, my background was in science – I have a degree in Zoology – which has served me well for assimilating the scientific information needed for presenting material in a “popular” format (i.e. as opposed to technical or scientific) on the websites I have constructed over that ten year period. These websites, like Sex-and-Relationships, have been mostly focused on the field of sexuality and relationships, though I have built other websites for holistic and complementary therapists as well. All of the written material on these websites is produced by me, using a combination of my scientific knowledge and skills and my writing ability. The latter was developed over a five year period after leaving University, when I spent my time working as a journalist and writer, before moving into the field of accountancy.

When I left accountancy in 1998, besides setting up the website business, I also started training as a psychotherapist, in the field of transactional analysis. Although I have not practised as a therapist in a clinical setting, I have conducted several workshops for men with sexual issues and I am active in an international men's movement which runs self-development workshops for men on a regular basis in the UK and overseas. I am also a trustee of a UK charitable trust, which works with and for men with congenital abnormalities, providing support, education and counselling.

1.4 Introduction to the PhD research project

1.4.1 Overview

The following action research project aims to investigate the steps necessary in setting up and running a low-cost educational public health website. The research will use the website Sex-and-Relationships as a case study. Additionally, it will investigate how visitors to the website interact with the service. In-depth technical aspects of web design or internet technology will not be investigated in this study.

1.4.2 Rational for the research project

Innovation within the field of health education is important to promote access and take up of essential services. New initiatives need to be developed according to best practice guidelines and need to have some level of evaluation of practice. Within the NHS evidence-based practice is key to clinical excellence and accountability of service provision (Brownson et al 2003). Action research can help to make sense of problems encountered during service development and encourages continual critical reflection, which can lead to best practice in health promotion (Hart and Bond 1995). The proposed action research project focuses on facilitating the development of a service, aiming at a high standard of delivery. It hopes to document obstacles encountered during development and early running of the service and to report on potential solutions, which were tested. Additionally, it hopes to shed light on how service users interact with the service and how to adapt the service to the needs of service users.

1.4.3 Preliminary research questions developed from the objectives for Sex-and-Relationships

To gain clarity about the research questions for this study, it is necessary to have clarity about the aims for the case study project. Sex-and-Relationships aims at providing a high-quality and easily accessible information service on sexuality, sexual difficulties and relationship issues for adults on the internet. Secondly, it aims at taking into consideration the different perspectives of men, women and transgendered people as well as different relationship constellations such as heterosexual or homosexual and to promote respect and equality. For Sex-and-Relationships to become sustainable long-term it would ideally be commercially viable. However, it would need to earn the necessary revenue in an ethical way. Furthermore, Sex-and-Relationships aims at supporting vitality and acceptance of human sexuality in the way the website positions itself between a medical approach to sexuality and an exploitative, pornographic approach whilst giving special consideration to the empowerment of women. It will need to be culturally sensitive and accessible to people globally. Sex-and-Relationships would also like to offer an email advice and counselling service, which is accessible to everybody and free of charge. In general, it wants to promote an ethical approach to sexuality on the internet.

From the above stated objectives for Sex-and-Relationships, the following preliminary research questions have been developed. In accordance with the emergent nature of action research, the research questions will be developed and refined throughout the research project through an iterative process.

Research question 1: How can we develop and run Sex-and-Relationships as a high quality, but low-cost online health promotion website on sexual health?

Research question 2: What can we learn about the service users who access Sex-and-Relationships?

1.4.4 Introducing myself as the practitioner-researcher

To allow the reader of this research report to consider how the person of the researcher may have impacted the research I will give some information about myself. Etherington (2001b) sees writing research as a process of also writing the researcher, a 'gathering of selves' of the multiple identities and selves of the researcher in the process of narrating the research. This seems appropriate for an action research methodology, which is embedded in post-modern thinking. Additionally, the many roles I as the researcher embody such as online counsellor, researcher, web mistress and change agent are grounded in my personality and history, which will impact the research. Therefore, the researcher as a person needs to be revealed and accounted for.

Firstly, I am female. My sex, sexuality and gender permeates the research report I am constructing, as well as how I am approaching the project itself. Not only am I female, I am a 37-year-old European woman. I see the age as hugely important. To me, my generation of women in Europe seems to be the first one to have grown up in the post-feminist area with an expectation of equality, or more or less equality, with men. I did not have to fight for a vote, equal access to education and University, the right to stay single or choose how many children I may want. I grew up with the belief that my choices about my sexuality and whom I wanted to share it with were mine and mine alone to make. Contraception and advice has been and is freely available to me. However, although I have grown up with an expectation that equality should be the norm, I am also always aware that equality has limits. As I grew older I have realised how immensely fortunate I have been to have grown up in a society, time and culture which does not oppress women in overt ways. A large percentage of women worldwide have none of my choices.

My sexual orientation is heterosexual and I have been in a long-term committed relationship since 1999. My view on Sex-and-Relationships and the research process will be coloured by my sexual orientation and the acceptance and approval I have experienced culturally for my choice of sexual partner. I am aware that other individuals and couples are not as fortunate and that homosexuality is illegal in many countries and punished by extreme sentences in some. I hope that an awareness of my privileged position will allow me to be open to other people's experiences and work towards empowerment and equality.

I am Austrian and have lived in Austria till I was 27. Inside I feel very Austrian and Middle European. There is my intrinsic valuing of education and knowledge, and my love of language with a tendency to use it in a fairly straightforward way, compared to what I experience parts of the British culture to be. Of course my first language is German. My understanding of English seems excellent, but it has its limitations. I am aware that many of the visitors to Sex-and-Relationships may also not be native English speakers. Additionally, Sex-and-Relationships is mainly constituted by texts, which will create a barrier for non-English speakers and people with difficulties in literacy. Language needs to be a central concern within this project.

Being Austrian to me also means being political. Not only does my nation have a long standing tradition as an empire as well as a history of collapse and survival, we have also externalised and lived our deepest shadow. Although I am three generations down from when many Austrians jeered or stood by as neighbours and friends were betrayed, robbed, deported and ultimately exterminated for the official version of the greater good, the horror of ones own personal potential to join in or stand by and do nothing lives on in me. I see global politics today as evidencing the same potential of humankind to split between good and evil, to make people out to be 'the other', to persecute and annihilate. To me, Sex-and-Relationships is in itself a strong political statement, one that includes and respects difference and that advocates for closeness and joy and against dogma, oppression and rigidity.

I come from a middle class background. Austria has a very settled, fairly wealthy and middle class population, so being anything else would be quite difficult. However, having left Austria and travelled outside of Europe I have a sense of how cosseted my life is.

Globally, a big part of humanity is living on a subsistence level whilst others, including myself, are free to decide where to go on holiday with their disposable income. In Europe we seem to feel entitled to personal safety, free health care and political freedom without acknowledging how hard it has been for previous generations to establish these rights or how limited their distribution is in the modern world. Oppression and inequality must be addressed for humanity to have a future in an age of globalisation, a booming world population and global environmental threats.

As this present study constitutes a piece of practitioner research, I would also like to say a few words about my current professional position. I have been working as a psychotherapist in private practice for over 8 years. During this period I specialised on long-term 1:1 psychotherapy to help clients address deep-seated, characterological issues. I am based in Manchester, which has resulted in a culturally mixed client group including clients from all continents. As a psychotherapist I see myself as experienced and able to work with clients with difficult presentations.

Since 2004 I have also been teaching and supervising other practitioners. Currently, I am responsible for a year group of transactional analysis trainees in Edinburgh where I also run 4 supervision groups. Additionally, I am teaching in Ljubljana, Slovenia, and Athens, Greece, on a regular basis.

My regular off-line psychotherapy practice rarely includes clients who come specifically with psychosexual issues and there is little explicit overlap between my research and my day-to-day work. This creates an important boundary for me, making the sometimes difficult topic of Sex-and-Relationships easier for me to work with. Some of my clients and trainees know about my PhD project, however, I do not disclose details about it on a regular basis.

My knowledge of psychosexual psychotherapy and sexual health has developed through reading, working with Rod and ongoing supervision with a psychosexual psychotherapist. My first degree, an MSc in Zoology, has helped me greatly in being able to access information on human physiology and medicine. Additionally, I have found action research methodology to be on some level very similar to the ongoing stance of curiosity required for good psychotherapy.

1.5 Orientation for the reader

Throughout this research report I will intersperse fragments of my research journal in the main research report to elaborate, offset and highlight points made in the main text. These fragments will be from original entries I made in my online research journal, a web log or blog (Blood 2000), including title and date. However, I have amended them in so far as to correct spellings and include references to conform to academic standards. The blog excerpts will be offset from the main narrative through the use of a different font, namely *courier*, and different paragraph formatting. The way blog fragments may interrupt the main narrative is welcomed by the author as it is suggestive of the discontinuity and patchiness of the internet itself as well as inviting the reader to come to his or her own conclusions with respect to this piece of research.

So what's with the blog?

Friday, December 30th, 2005

As one can read below (see previous posting, one day I will be able to work the permalinks) I am just starting on a PhD developing an online psychosexual service. It's fun, exciting, scary, pretty overwhelming and I am dreading all the work coming my way. But it's certainly my favourite toy at the moment. I hope this blog will accompany me through the good and bad times with the project as well as be a place I can meet and talk with other people about it. Additionally, my colleague Terry and I are curious about what we can do with blogs in social science research. So hopefully, this blog will also be a project in itself about blogs. If you, the reader (should one come along) are interested or through any other stirring tempted to leave a message please do. It would be nice for me to know someone is out there and curious.

Additionally, 'screen shots' will be used within the research narrative for illustrative purposes. A screen shot is a copy of what was seen by the researcher and other internet users at a given point in time on their computer screens.

Other texts, which will be used in this research report, are short sections, which were written by my project partner Rod. His writing will be clearly labelled as his and formatted in *ariel*.

This research report will now continue with a literature review, which is split into two sections. The first part of the literature review will discuss the more general areas in which

this project is grounded, namely the internet as a medium, including current figures for internet access and technology usage. I will then continue with a discussion of blogging as online journaling as a way of being reflexive, sexual health, psychosexual psychotherapy and online counselling, including a discussion of the ethical dilemmas in online counselling.

The second part of the literature review will cover the recent scientific literature on health promotion on the internet in general, and on sexual health and psychosexual interventions on the internet in particular. Previous research will be discussed and critiqued with a view to extracting information which will be helpful in developing Sex-and-Relationships as well as to sharpen the research focus for this study.

Following on from a discussion of the previous literature, I will review and refine the research questions, helping both the researcher and the reader to focus clearly on the aims of this research project.

Subsequently, I will discuss methodological issues pertaining to this study starting with a discussion on research paradigms and an epistemology of practice. Furthermore, I will review the impact the internet as a research medium has on the methodology used for this study. Action research will be introduced as the chosen methodology with a discussion of its features as well as the practical steps involved in action research. I will comment on my rationale for choosing action research methodology rather than a different methodology such as mixed methods research and include a brief discussion of practitioner-led research issues.

The methodology chapter will then review the data collection methods for this project and give a summary of possible data sources. Additionally, I will review issues pertaining to sampling and validity as well as data analysis and interpretation. A big section is subsequently devoted to ethical issues in research in general, ethics in online research and ethics in action research. I will discuss ethical dilemmas envisaged for this piece of research and actions taken to minimise any negative impact on the research participants, the researcher and the integrity of the research itself. Finally, I will discuss reflexivity and its application in this research project and give a brief statement of the positioning of the researcher in the research.

The third part of the research report will cover the research story, i.e. a description of the unfolding research process including a presentation of the findings in chronological order. Analysis of the findings and their interpretation will be interwoven within the main results section as these processes are intrinsically linked within action research. The chronological presentation of the research will be in 5 phases starting with a description of the project at the start of this study. After the presentation of the findings and the initial analysis I will discuss the findings with respect to the research questions and in light of the literature review. This will result in a series of action steps to develop Sex-and-Relationships further, however, the practical implementation of these action steps will be beyond the scope of this project. To conclude, I will review the transferability of my findings to other contexts and say a few words about how the research has impacted on me as the researcher.

2.0 Literature Review

The following section gives a general introduction to the literature in the fields, which are important to this study. In this general literature review I will discuss the internet as a medium, blogging as online research journaling, sexual health and sexual health promotion, psychosexual psychotherapy, and online counselling including a discussion of the ethical dilemmas in online counselling. Although these areas are hugely diverse they all cover important aspects of this research project. Subsequently, I will provide a more detailed review of the research literature on health interventions on the internet in general and sexual health interventions on the internet in particular. I will conclude my literature review with a summary of the important points learned from the literature and how these findings relate to the research questions for this study.

2.1 General Literature Review

For the purpose of this study I would like to define 'internet' and the colloquial abbreviation of 'net' as describing the whole network of globally interlinked computers. The 'world wide web' or 'web' for short is a subsection of the internet which is constituted by technology which allows web pages to be stored on specific computers called servers and retrieved on request through the transfer of individual data packages from any computer connected to the internet.

Internet technology allows for different ways of communication between 'users', i.e. individual people accessing the internet via a computer linked to it. One communication channel is email. *'Email is generally an asynchronous form of communication. It operates in non-real time, with messages being written and read at different times, as well as different places.'* (Mann and Stewart 2000: 9). Another technical term used in this study is 'blogging' which is a verb describing the action of writing a 'blog' which is itself an abbreviation of 'web log'. Blogs are online journals and I will use this technology to write an ongoing research journal for this study (see the section entitled 'A brief excursion into the blogosphere' below). The term 'blogosphere' (Herring et al 2005) is a wordplay used to describe the online world of blogs.

2.1.1 The internet as a medium

The internet is a global phenomenon of the recent decades. Built originally in the USA as a way for military communication lines to survive a nuclear attack (Jones 1999b), it constitutes a decentralised network of computers which allows users to access information and communicate in a variety of ways. The internet is not a homogeneous network, but comprises a whole range of technologies and communication channels. Additionally, it is being influenced by the multitude of cultures and subcultures of its users. With the right computer equipment and an internet connection one can now log on to a virtual world which was originally built solely out of text, but today also incorporates other forms of media such as voice, video, music and interactive computer graphics. Below, I will discuss some of the features of the internet which are important for this study.

As a medium of communication the internet allows for two-way interaction. After decades of overwhelming influence of TV in the Western world some writers are excited at the prospect of a two-way mass medium of communication. Morrisett (1996) sees the internet as a democratizing force which allows people to communicate on a grass roots level to exchange ideas and organise joint action. Additionally, Morrisett (1996) discusses the use of email as favouring active thinking and reflection and encouraging the skills of reading and writing.

Over the last two decades the internet has developed into a huge, global phenomenon. It enables seemingly unlimited distribution of information between people on different continents. The speed and accuracy of data exchange is unprecedented (Kendall 1999). Additionally, new technology has allowed users easy access to web editing tools as well as communication channels, which only require a basic understanding of the technology. This means that most of the millions of internet users are actively engaged in creating, editing and uploading content to the internet on a daily basis. The sheer volume of data created in a decentralised fashion by individuals is staggering. New web editing software such as for blogging or social networking sites have made the internet more personal and encourage users to contribute their own voices, images and relationships to the internet.

Another feature of the internet is its never ending activity. *'The Internet changes, almost moment to moment'*. (Jones 1999b:7). Data is constantly added to the net and so is

technology. Configurations, supporting technology and new software are being developed and are constantly revised (Sudweeks and Simoff 1999). As new technology emerges so do new global trends such as the use of the internet for commerce (Jones 1999b) or blogging (Blood 2000).

Another interesting feature of the internet is that copies of data may be deleted, but the redundant nature of data storage on the internet means data can never get lost again completely. '*... the information, whatever it may be lingers; it is not forgotten, nor is it distorted over time, as gossip can become. It is not so much that it is necessarily accurate per se, but that, right or wrong, it is persistent.*' (Jones 1999b: 5). Whatever is created on the internet has an ephemeral character, but is at the same time preserved for an indefinite period of time.

The speed at which data can be exchanged is another crucial feature of the internet. Although speed can empower users to access data quickly and efficiently as well as communicate instantaneously over great geographic distances, the medium itself gives little time for critical evaluation. '*In many respects, speed both empowers the user to gain access to pragmatic sources, while disempowering the critical apparatus of knowledge - history*'. (Breen quoted by Jones 1999b: 14). Data can be accessed instantaneously, but it is often hard to tell whether information is up to date and valid. Additionally, the volume of data that can be accessed through high speed connections encourages short attention spans and discourages in-depth reflection. '*The resource that is scarce and desirable in cyberspace is attention.*' (Goldhaber 1997: 182).

An important feature of the internet for this project is the possibility for complete anonymity. Users can choose whether they want to disclose their offline names or other identifying characteristics in their email addresses or other communications. As such the internet has been perceived either as a threat to order or a playground in which people can experiment with identities and gender roles. The facilitative effect of guaranteed anonymity through the use of technology on disclosure of important health information by patients has been noted in the health promotion field early on (Locke et al 1992, Paperny 1997). Some suggest that the internet is truly egalitarian, whereas others think that attributes which confer status still exist, but are simply different in the online world. Kendall (1999) for example argues that the internet is not devoid of identity, but that users simply assume

identity facts for other users, for example, that other users are '*white and male until proven otherwise*' (Kendall 1999: 66). However, over the last decade the internet has grown to be a truly global phenomenon with more and more women and non-white populations accessing it on a regular basis. Therefore, it may be assumed that any stereotypical assumptions between internet users are also in flux.

Since the advent of broadband many users especially in the Western world enjoy unlimited access to the internet at a very low cost. Additionally, personal computers are fairly affordable nowadays even on working class wages in the Western world and second hand computers are by now internet compatible. Internet cafés have sprung up wherever people may not be able to afford private access and they are popular in Asia, Africa and Latin America. On the other hand, a digital divide (NTIA 1999) still exists between those who have access, and those who do not. Historically, women took longer to take up the new technology, but the digital divide between genders is closing in the Western world (Dittmar et al 2004). However, other populations are still lagging behind such as older adults, young people, and ethnic minorities in the Western world (Dittmar et al 2004). Globally, China has currently the fastest growing population of internet users (Fallow 2007). Technology diffusion is also happening in Africa and Asia, although it can be expected that it will take women in these areas much longer to be able to access the internet than men due to cultural gender roles.

Diagram 1 below shows a screen shot of a press release from the Computer Industry Almanac Inc (2007) giving the latest internet access figures.

Computer Industry Almanac-Press Release

http://www.c-i-a.com/pr0207.htm

blog sex-and-rel rel-exp SquirrelMail1 SquirrelMail2 Google Google Analytics Sail Blue Horizons Uni Man DreamHost CCBill Demon

Computer Industry Almanac Inc. **Press Release**

**Worldwide Internet Users Top 1.2 Billion in 2006.
USA Tops 210M Internet Users.**

February 12, 2007 - The worldwide number of Internet users surpassed 1.2 billion in 2006—up from only 2M+ in 1990, 45M in 1995 and 430M in 2000. Worldwide yearly increase in Internet users is 140M to 145M in the next five years, which means the 2B mark will happen in 2011 or 2012. Much of current and future Internet user growth is coming from populous countries—especially the BRIC countries—Brazil, Russia, India, China. In the next decade many Internet users will be supplementing PC Internet usage with Smartphone, mobile phone and mobile device Internet usage. In developing countries many new Internet users will come from cell phone and Smartphone Internet usage. The U.S. continues to lead with over 210M Internet users at year-end 2006. The two most populous countries—China and India—are now in 2nd and 4th place in Internet users. Other populous countries such as Brazil, Russia and Indonesia have also moved into the top 15 ranking.

Year-end 2006:	Internet Users (#M)	Share %
1. USA	210.2	17.3
2. China	131.1	10.8
3. Japan	90.9	7.5
4. India	67.6	5.6
5. Germany	50.3	4.1
6. UK	39.7	3.3
7. South Korea	35.0	2.9
8. France	32.0	2.6
9. Italy	31.6	2.6
10. Brazil	29.5	2.4
11. Russia	27.6	2.3
12. Canada	23.3	1.9
13. Indonesia	22.7	1.9
14. Mexico	20.6	1.7
15. Spain	17.8	1.5
Top 15 Countries	829.9	68.3
Worldwide Total	1,216	100

Internet user penetration is now over 70% for the leading countries and future growth is limited for these countries. Internet user penetration for the populous and developing countries remains low, but has room to grow. The BRIC countries (Brazil, Russia, India, China) have Internet penetration of 15%, 19%, 6% and 10%, respectively. Wireless web usage will account for much of future Internet user growth in many developing countries.

Done

*Diagram 1: Screen shot of a press release from the Computer Industry Almanac Inc 2007
downloaded on the 5.3.2008 from <http://www.c-i-a.com/pr0207.htm>*

The Computer Industry Almanac (2007) suggests that in 2006 the number of global internet users rose above 1.2 billion and is forecast to reach 2 billion people by 2011 or 2012. The strongest increases in internet users are currently seen in Brazil, Russia, India and China, the so called BRIC countries, due to their huge populations and rapid development. The USA still leads the league table with 210 million Americans accessing the internet, constituting 17.3% of the total amount of internet users. It is followed by China with 10.3% of all internet users, Japan (7.5%), India (5.6%), Germany (4.1%) and the UK on sixth position with 3.3% of all internet users. Internet penetration, i.e. the percentage of knowledge diffusion and uptake of the internet in the general population in the leading Western countries is 70%. Therefore, 30% of the whole population of the UK must be assumed not to have access to the internet. Internet penetration is much lower in the BRIC

countries with Brazil at 15%, Russia at 19%, India at 6% and China at 10%. However, these figures are bound to change soon due to the rapid growth rates in people accessing the internet in these countries.

More specific data on internet access in the UK from the Office of National Statistics (ONS 2007), a Government Agency using data from the National Statistics Omnibus Survey, suggest that nearly 15 million UK households had internet access in the UK in 2007. This represents 61% of households, 84% of which had a broadband connection in 2007. Additionally, people, who may not have access to the internet at home may be accessing the internet at work, at public libraries or via internet cafés.

Similar figures for the percentage of internet users in different countries are displayed below in a diagram taken from Wikipedia (2007) based on data from Nationmaster² and The CIA World Fact Book³.

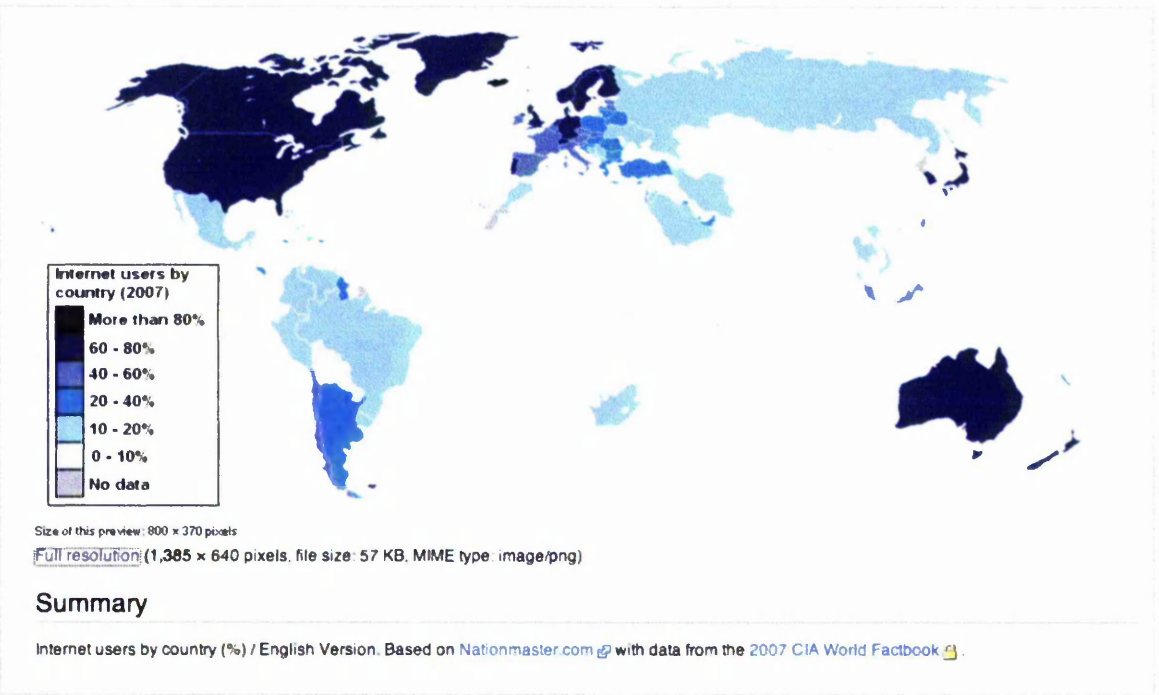


Diagram 2: Screen shot of a diagram of the percentage of internet users by country, English version. Reproduced from Wikipedia
http://en.wikipedia.org/wiki/Image:Internet_users_en_2007.PNG, accessed 5.3.2008

² URL: <http://www.nationmaster.com>
³ URL: <https://www.cia.gov/library/publications/the-world-factbook/index.html>

Culture is an interesting phenomenon online. On the one hand McLuhan popularised the idea of an emerging global online culture through his idea of an electronic global village (McLuhan and Powers 1989), whereas recent writers emphasise the local context in which internet users always stay embedded (Kendall 1999). For example, Kendall (1999) states: *'On-line interaction cannot be divorced from the off-line social and political contexts within which participants live their daily lives.'* (Kendall 1999: 58). Therefore, researching via the internet requires attention to different cultural norms (Sudweeks and Simoff 1999) and an awareness of the ubiquitous potential for misunderstandings.

As the amount of information stored on the world wide web has grown exponentially, so has the problem for users to find the specific information they are looking for. Over the last decade search engines and directories have stepped into this gap. Search engines, for example, Google or Kopernicus, are software programmes, which search the world wide web for relevant websites in response to search terms entered by a user. Directories such as Yahoo offer lists of websites organised into categories, which allow the user to locate online resources through homing in from more general categories to more specific ones.

Directories struggle to stay up to date as they need to be updated manually. Search engines on the other hand need to develop an efficient algorithm, which lets the software select relevant websites out of the pool of billions of possible ones in response to any search term or combination of search terms entered by a user. Additionally, search engines and directories are constantly evolving to identify spam and inappropriate websites to stay ahead of commercial interests, which seek to exploit their systems. This has led to Google keeping its search algorithm completely secret. Web masters are given only basic advice on how to aim for a high ranking place for their website and avoid potential penalties imposed by Google. This means that web editors are faced with a trial and error process of developing their sites to adapt to unknown variables if they want to rank highly in the Google search results. The results of search engines are arranged according to their importance calculated by the algorithm with respect to the search query entered, in descending order. Internet users often tend to select and visit only websites listed in the top 10 positions (Morahan-Martin and Anderson 2000) resulting in web masters putting a lot of effort into being included in the top 10 search results.

In general, search engines are the gatekeepers to online information (Morahan-Martin and Anderson 2000). Currently, Google is by far the most important search facility on the internet (Smith 2008). Figures given by Comscore (2008), an international commercial marketing organisation collecting internet statistics, suggest that in December 2007 66.2 billion search queries were conducted worldwide. Of those 66.2 billion, 62.4% were conducted via Google sites, 12.8% via Yahoo sites and 5.2% via Baidu, a Chinese search engine. The above data emphasises the importance of Google to web developers.

Another common feature of the big search engines is that they offer country specific websites such as google.co.uk for the UK. Websites will be ranked differently in the search results produced through each country specific search engine. This is due to geo-spatially enabled indexing of websites, meaning that the Google algorithm will attach a location to a website when indexing it which will influence the outcome of search results.

Finally, I would like to include a brief comment on tracking visitors to websites, which can be viewed from two perspectives, a technical one and a sociological one, both of which have serious methodological flaws. From a technical perspective, the computer on which a website is stored or hosted, called web server, can record accurately how often a web page is requested by other computers. However, individual web pages are made up of distinct data packages, for example, one data package for each individual picture, one for the navigational elements, and so forth. What the web server will record with complete reliability and validity is how often individual data packages are requested. These records are normally called server log files or server logs. Unfortunately, these log files give no indication as to how many visitors, i.e. distinct individuals, have accessed a website as individual web pages do not correspond easily to data packages recalled and individual web pages recalled to not correspond to individual visitor numbers.

From a sociological perspective one is interested in how many visitors access a website no matter how many individual pages they may view. Such visitor numbers can be collected via software programmes such as Google Analytics which place 'cookies', small software markers, on the computers of each individual visitor to be able to track how many unique visitors there are, how many pages each visitor accesses and how long visitors stay. However, some internet users disable cookies or delete them on a regular basis in which case software programmes, which record visitor numbers, will not be able to pick up the

correct data. Within the web hosting community it is generally suggested to treat figures for visitor numbers with a +/- 10% range of accuracy (personal communication Rod). Additionally, just because a software programme has recorded a visitor as staying on a website for 25 minutes does not mean the visitor behind this figure has been actively engaged with a website for this amount of time. It simply means that a website has been displayed by the visitor's browser software for this amount of time whilst the individual in question may have been reading the content of a web page or might have been answering a phone call or doing something else in a different window of their computer screen. Therefore, visitor numbers recorded in the literature for online health promotion must be treated with caution.

To conclude, the present research project is fully embedded within the internet as a medium, both for its action and its research components. The internet is a recent phenomenon which allows for nearly instantaneous transfer of data at a very low cost. Communication can be two way and individual internet users contribute to the data available online on a continuous basis. Data stored online is both ephemeral in character as well as persistent (Jones 1999b). Internet users can access information and communicate online completely anonymously and often from the security and comfort of their own homes. Access to the internet is continuing to increase worldwide with the biggest growth rates currently seen in the developing world (Computer Industry Almanac 2007). Search engines have become the gate keepers of online information with Google currently reigning supreme (Smith 2008).

2.1.2 A brief excursion into the blogosphere: Reflexivity in action

A weblog or blog for short is a publicly accessible online journal. In technical terms it is a frequently updated website with dated entries which are arranged in reverse chronological order. At the beginning of 1999 only a handful of blogs existed (Blood 2000), but later on that year new software was released which allowed blogging without in-depth technical knowledge. Blogging was quickly taken up by more and more people and the number of blogs exploded over the following years. Figures for 2004 state that 7% of the 120 million US adults say they have created a blog (Rainie 2005). That means in 2004, 8 million people were writing at least 1 blog each in the USA alone.

Originally, blogs were used as portals to collect links and comment on interesting websites which the author of the blog or blogger found whilst surfing the net. This style of blog, called a filter blog as it filters material on the web through the personal lens of the individual blogger, is still popular and some filter blogs have huge readerships (Blood 2000). They are often political in nature commenting on matters of national and international importance and tend to have short, snappy and preferably witty comments. Another form of blog is the personal journal, which is often updated daily by its owner and contains reflections, thoughts and feelings about everyday events in the life of the blogger. Links to other sites on the internet are still important, but the personal stories and comments take centre stage.

Blood (2000) suggests that regular blogging will result in better writing skills and increased self-confidence and self-knowledge for bloggers. Additionally, newer blogging software such as 'Blogger', 'Pitas' or 'WordPress' allowed users with minimal technical knowledge to make their own voices heard on the net. Blood (2000) states:

'The promise of the web was that everyone could publish, that a thousand voices could flourish, communicate, connect. The truth was that only those people who knew how to code a web page could make their voices heard. Blogger, Pitas, and all the rest have given people with little knowledge of HTML the ability to publish on the web: to pontificate, remember, dream and argue in public, as easily as they send an instant message.' (Blood 2000)

Blogging suddenly gave millions of people a chance to express their thoughts easily and without financial cost in the public arena. It became a way in which people could become writers, journalists and editors of their own stories and be published in a globally accessible format.

Blogging is both a very public activity as well as a private one. It is public because anybody, who is online can read any blog which is posted on the internet. However, blogging also feels very private as bloggers will often write by themselves sitting at their computer without ever meeting any of their readers, if indeed other people do read their blogs. Therefore, the blog as a medium of expression has the ability to link the public arena with the private spheres of individuals (Blood 2000).

Blogging has been taken up by some academics as a useful research tool. Mortensen and Walker (2002) state that blogging can be very beneficial to academics as it allows them to

publish and be part of the public arena without having to conform to authority. Mortensen and Walker (2002) see blogging as a continuous way of writing ourselves as well as a way to express thoughts and feelings and to recount day to day activities. *'The tangible work of research in the humanities is reading, thinking and writing. In blogs these collapse into one movement. Blogs assume linking and reading and are the written trace of these activities. A blog is a trail, a visible trace of the process of research'* (Mortensen and Walker 2002: 268).

With respect to learning in general, Fiedler (2003) suggests that blogs can be useful for people as a way of organising their own learning in a proactive way. Learning is about making meaning and happens through an internal and an external conversation. A blog is constituted out of both strands of conversation and can link the two. Additionally, Fiedler (2003) thinks that blogging invites people into a metaperspective, which can help them to optimise their own knowledge construction process and enhance learning.

Other writers have commented more directly on blogging during the research process. Suzuki (2004) discusses the usefulness of blogging as a research tool. According to Suzuki *'the blog offers the possibility of not only "walking through" research a posteriori, but indeed of "walking with" in constructive participation.'* (Suzuki 2004: 5). She sees blogging as a real-time data recording system, which is systematic, disciplined and replicable. Brady (2005) further discusses the usefulness of blogs to researchers. He states that blogs are an efficient way of storing and organising information. Additionally, blogging software normally includes a search facility, which makes it easy to locate data through using key terms when searching through past blog entries.

Considering that this research study is mostly conducted via the internet, it seemed congruent to also write the research journal for this project online. A blog as a research journal seemed the perfect arrangement as it allowed the researcher to post frequent updates, thoughts, musings and feelings about the research online in the public arena. The blog, called Sex-and-PhD⁴ as a word play on the name of the project itself, is connected via a link to the project which allows visitors to Sex-and-Relationships and participants of the research access to the unfolding research process as documented in the research journal.

⁴ URL: <http://www.sex-and-phd.com>

Additionally, blogging software allows visitors to leave comments in response to posts on a blog, which enables dialogue.

Furthermore, the software 'WordPress' allows categories to be set up to group posts, which means that posts and the knowledge they contained can be organised on an ongoing basis into strands such as 'update' or 'analytical memo'. Links to relevant resources on the web can be included in individual posts and a side bar, usually called 'blogroll' in blogging circles, which means that the researcher can set up links to all relevant websites used in the research making the blog an efficient homepage or online portal for the research. Having a blog as a research journal allows the researcher to write entries from different geographical locations such as during trips abroad. A professional back-up facility is in place through the web hosting company making the blog a secure and reliable way of storing data. However, the public nature of the blog also creates drawbacks for the researcher who is conscious that what she writes becomes part of the public arena and can be read by anybody.

2.1.3 Sexual Health

The Independent Advisory Group on Sexual Health and HIV (2005) suggested that a range of health issues fall under the heading of sexual health, namely contraception, abortion, psychosexual services and the detection and treatment of sexually transmitted diseases or STDs including HIV. The definition below of sexual health of the Department of Health (2001) also includes emotional issues such as living in a fulfilling sexual relationship and being free from discrimination as important aspects of sexual health.

'Definition of Sexual Health: Sexual health is an important part of physical and mental health. It is a key part of our identity as human beings together with the fundamental human rights to privacy, a family life, and living free from discrimination. Essential elements of good sexual health are equitable relationships and sexual fulfilment with access to information and services to avoid the risk of unintended pregnancy, illness or disease' (Department of Health 2001).

Unfortunately, such an inclusive view is the exception rather than the norm as sexual health was and is traditionally approached from a medical perspective. Therefore, sexual health in the UK is most often equated with rates of STDs or abortions.

Since the last major sexual health promotion campaign in the 1980 sparked by concerns about HIV figures for sexually transmitted diseases have been steadily increasing again in Britain. For example, recent figures show that the number of new episodes of STDs diagnosed in England, Wales and Northern Ireland has doubled in the last ten years. These include increases in gonorrhoea (up by 148%), chlamydia (195% increase) and infectious syphilis (up by 380%) (Department of Health 2004).

The Independent Advisor Group for Sexual Health and HIV suggested that prevention is better than cure as it would save on health care costs as well as on lives (Department of Health 2004). The financial figures they quote to estimate the cost of sexual health problems in the UK are £2.5 billion for unwanted pregnancies and £1 billion to care for new HIV cases diagnosed in 2002 and 2003. In addition, STDs and their potential complications cost the NHS over £1 billion per year. For young people the figures for STD infections are even higher due to their greater risk taking behaviour and vulnerable physiology. Carvel (2007) reporting on a study linking drug use amongst young people with a crisis in sexual health in the Guardian newspaper stated that *'In a single act of unprotected sex with an infected partner, adolescent girls have a 1% chance of acquiring HIV, a 30% chance of getting genital herpes and a 50% chance of contracting gonorrhoea'* (Carvel 2007). Clearly, the extent of only the medical aspects of the problem around sexual health in the UK alone is staggering.

Additional figures cover the frequency of psychosexual conditions in Britain. Nazareth et al (2003) conducted a survey of patients attending London general practitioners. They found that the most common psychosexual problems for men are erectile failure and lack or loss of sexual desire, and for women a lack or loss of sexual desire and failure of orgasmic response. They conclude that sexual difficulties are common in people attending general practitioners. The findings of Nazareth et al (2003) are in line with an earlier study by Mercer et al (2003) who reported the results of the national survey of sexual attitudes and lifestyles with respect to sexual function problems. They found that the most common psychosexual issues for men are lacking interest, premature orgasm and performance anxiety. For women the most common problems are lack of interest, inability to experience orgasm and painful intercourse. Mercer et al (2003) concluded:

'Our data have implications for improving relationship education, counselling, medical education, and doctor's professional development; raising public

awareness of the range and location of service available for managing sexual problems; and re-examining the nature of "sexual dysfunction" and how best to tackle it.' (Mercer et al 2003: 427)

The above figures must be set in context with the current provision of sexual health services in Britain. Traditional services such as GUM clinics seem to be struggling to cope with demand and may need an increase in capacity of 30 – 50% (BBC 1 2005) to keep abreast of new infection rates. The Independent Advisory Group for Sexual Health and HIV has recommended more action on STDs and HIV by '*stripping away the stigma and making prevention a key part of the nation's broader public health agenda.*' (Department of Health 2004: Press release). Internationally, sexual health is also a major concern with the most obvious crisis being the AIDS/HIV epidemic in Sub-Saharan Africa (Bancroft 1989, Coleman 2002, Donovan 2004, New Scientist 2006, Low et al 2006, Wellings et al 2006, Bearinger et al 2007, Carvel 2007).

Clearly, sexual health is a major national and international concern, which needs to be addressed through prevention and education not just with more medical resources (Department of Health 2004). Additionally, sexual health cannot be restricted to physical health alone, but must include psychological issues such as relationship skills and sexual identity. The Department of Health's (2004) reference to 'stigma' suggests that a lack of openness in our and other societies contributes to the decline in sexual health over the last 10 years.

Jackson and Scott (2004) explored the inherent contradictions of how we approach sexuality in our culture. The authors argue that although we seem to be getting more liberal in our attitudes towards sexuality, we are also deeply conflicted about it. '*These anxieties centre around the specialness of sex, its status as extra-ordinary, as somehow separable from everyday special practices and routines a source of ecstasy that lifts us beyond the mundane but also uniquely problematic and liable to provoke disgust and revulsion.*' (Jackson and Scott 2004: 232). The authors centre their argument on four inherent contradictions in our cultural approach to sexuality.

Firstly, our approach to children and sexuality is deeply ambivalent as we hold the collective belief that we do answer questions openly whilst at the same time trying to say as little as possible to preserve 'innocence'. Secondly, as a society we proclaim to support

sexual diversity, however, we still measure it against the norm of heterosexual relationships. Thirdly, we are arguing for egalitarianism in sexual relationships whilst at the same time getting entrenched in defining 'gender' via genetics, therefore creating polarised and stereotyped categories for maleness and femaleness. Finally, we see ourselves as sexually liberated whilst at the same time conforming to a generalised standard of sexual perfection, resulting in the rigid expectation that sex needs to be overwhelmingly ecstatic all the time. Jackson and Scott (2004) conclude that we need to question the special status of sexuality in our culture as a way of approaching and investigating it in a more open way.

Their work is corroborated by Frankham's (2006) study on sex education by parents. Frankham found that although parents professed to being open and approachable about sexual matters, the way in which they actually engaged in conversations about sexuality with their children closed down dialogue and discouraged questions.

Reading Frankham
Saturday, April 28th, 2007

(...)

I really like how Frankham (2006) has worked out the social as well as the ulterior [communication] of parents, or in other words, content and process really don't match. The process does show parents uncomfortableness with their children's sexual education and exploration. I think we will need to really watch that in terms of what kind of story do we tell about sexuality and relationships by how we write, what we don't say, what we don't write about or haven't had time yet to write about. (...)

With respect to the present study it is important to consider the cultural and emotional aspects of sexuality and sexual health, not just medical problems. It is important to note how Jackson and Scott's (2004) work as well as Frankham's study (2006) point towards our cultural biases when talking about sexuality. One consequence of our ambivalence about sexuality can be seen in our lack of discussion about what sexual 'wellbeing' may entail. Whereas other public health campaigns do refer to good health and wellbeing as ultimate goals to encourage people to invest in their health rather than to deal with ill health once it arises, the same approach is not evident in sexual health. Medical services tend not to discuss what 'good sex' or 'sexual wellbeing' may be or support people in aiming for it.

With respect to Sex-and-Relationships the author aims for a holistic approach to sexual health including its physical and psychological aspects (Department of Health 2001). Globally, different populations can be expected to have different information needs, which the project needs to be mindful of. Additionally, our society as well as some non-western societies is deeply ambivalent about sexuality (Jackson and Scott 2004, Frankham 2001, Frankham 2006). Any health promotion project focusing on sexual health must be attentive to the political and social context of such a service. Established practices such as medicalising sexual health and refraining from offering a pro-sexuality message or encouraging sexual wellbeing needs be critiqued (Bay-Cheng 2001). Furthermore, the selection and presentation of a sexual and emotional health education service is as important as its content. The way a story is told communicates powerful messages, which can be contradictory to its explicit content (Jackson and Scott 2004, Frankham 2006).

Overall, an online sexual health website such as Sex-and-Relationships which focuses on prevention and education is in line with the Department of Health's (2004) call for more preventative services and current worldwide need in this area (Binik 2001).

2.1.4 Psychosexual Psychotherapy

Psychosexual psychotherapy is the psychotherapy of sexual difficulties (Daines and Perrett 2000). The word 'psychosexual' is used in its broad sense pertaining to both psychological and physical aspects of sexuality (Francoeur 1991). Therefore, psychosexual psychotherapy must address medical, psychological and relationship issues to work successfully with sexual difficulties. Currently, the main textbooks for psychosexual psychotherapy are Bancroft (1989) and Leiblum and Rosen (2000). In the USA psychosexual psychotherapy is often referred to as sex therapy or psychosexual therapy and all three terms will be used interchangeably in this study.

The field of psychosexual psychotherapy has been separated theoretically and organisationally from other fields of psychotherapy and is only slowly moving towards an integration of theory (Weeks 2004). Historically, Freud (1905) introduced the importance of sexuality into our awareness, but later generations of psychotherapists managed to distance themselves from it again by focussing more on the mother-baby dyad and less on adult relationships (Cornell 2002).

Theoretically, psychosexual therapy is closely linked to the medical model and behavioural interventions. The first modern psychosexual manual by Masters and Johnson (1970) is based on a medical model of sexual dysfunction and it recommends homework assignments, which are behavioural interventions to cure sexual dysfunction. There are some attempts at a systemic perspective as Masters and Johnson (1970) include the partner of the client within their diagnosis. Other writers follow this model with few additions (Kaplan 1974, Hawton 1985, Leiblum and Rosen 2000). An exception are Daines and Perrett (2000) who approach psychosexual issues from a more psychodynamic perspective, and Weeks and Gambescia (2000 and 2002) and Weeks et al (2003) who integrate marital therapy with its systemic perspective into their approach to psychosexual issues.

Currently, there is a growing interest in other schools of psychotherapy, for example in the psychodynamic community, in integrating sexuality and attachment (Davies 1998, Dimen 1999, Meadow 2000) which touches on earlier work by Reich (1983) and other body-centred writers. However, these new developments seem to be organisationally split off from the world of psychosexual therapy. Treatment for a range of psychological issues seems to be easily accommodated within mainstream psychotherapy whereas psychosexual issues and psychosexual therapists remain isolated from the rest of the psychotherapy community. Of course, psychosexual interventions warrant specialist knowledge, but so do other conditions psychotherapists deal with on a routine basis. I believe it is likely that the mainstream psychotherapy community is only too willing to split off sexuality into a specialist field so as not to have to deal with its disturbing and intimate nature. This separation isolates psychosexual therapy theoretically and stifles new developments and integration with other fields as well as keeping sexuality an unspoken taboo in mainstream psychotherapy (Weeks 2004).

My own psychotherapy training was originally in transactional analysis (Berne 1961), a school of psychotherapy, which is flexible in its theory and methods and can easily be integrated with other psychotherapy theories. As a body of knowledge transactional analysis has the added benefit of having developed a language to talk about psychological issues, which can bridge the gap between cognitive behavioural theories and psychodynamic or body-centred ways of working. Since my core training I have developed my own style of working which I would describe as relational and integrative

psychotherapy. I have also had training in body-centred psychotherapy and have educated myself about psychosexual issues and treatments through personal reading. For the aspects of Sex-and-Relationships, which fall into the area of psychosexual psychotherapy, I have taken ongoing supervision from an accredited psychosexual psychotherapist.

Within Sex-and-Relationships I hope to integrate psychosexual theories on sexual difficulties with theories on relationships, psychodynamic theories and body-centred approaches. I hope that a pragmatic and integrative approach to psychosexual advice will result in a comprehensive service for clients, which does not separate between the emotional, psychological and medical aspects of psychosexual issues.

2.1.5 Online Counselling

Online counselling is a very recent addition to the discipline of counselling and psychotherapy. Rochlen et al (2004) define online counselling as '*any type of professional therapeutic interaction that makes use of the internet to connect qualified mental health professionals with their clients.*' (Rochlen et al 2004: 270). Their definition is inclusive of different communication channels on the internet as well as different styles of working such as advice giving, online support in addition to face to face work or exclusive contact of client and professional via the internet. Although some books have now been published on this subject (Bloom and Walz 2004, Kraus et al 2004, Goss and Anthony 2003, Hsiung 2002, Bloom and Walz 2000, Fink 1999), comparatively little has been written about online counselling and few research projects have yet looked into this new practice.

Online counselling poses considerable challenges to the practitioner and client (Rochlen et al 2004). Working via a completely text-based medium both client and practitioner have to contend with the absence of non verbal communication, which in face to face encounters makes up a considerable part of communication. Therefore, online exchanges face an increased chance of misunderstandings through the absence of contextual information. Additionally, working via email entails a significant time delay between sending a message and receiving a reply, which does not exist in face to face situations. Both client and practitioner need to be familiar and comfortable with the technology used to communicate. Online counselling excludes people who are not computer literate or who are not able to access the internet. A main drawback for the practitioner are the difficulties involved when

intervening in a crisis situation as the client may very well be located geographically on another continent and within another culture whose public services may not be familiar to the professional. Cultural misunderstandings and clashes are also a real possibility as client and practitioner may not share the same values and cultural traditions. What may be a good suggestion for homework from the reference point of an individualistic Western culture may be offensive or destructive within the framework of a collective culture. Furthermore, the possibility for anonymity on the internet may result in the counsellor questioning the identity of their client, which can have an impact on client assessment and treatment planning. Finally, counselling via the internet poses many ethical and legal issues, for example, the difficulties in ensuring confidentiality of data during transmission (see below).

Considering this long list of drawbacks it is important to remember that new technology has found its way into other areas of counselling and psychotherapy such as the use of the telephone for counselling (Rosenfield 2003) or supervision (Armstrong and Schnieders 2003, Robson and Whelan 2006). Apart from any reservations professionals may have about online counselling the technology has certainly been adopted by clients. The Samaritans email support service received and replied to 36,500 emails in 2000, a figure, which increased to 72,000 during 2002 (Samaritans 2007). These figures are clearly in line with general figures for health information seeking behaviour online (Brodie et al 2000, Cyber Dialogue 2000, Morahan-Martin 2004).

Online counselling can also entail many benefits compared to face to face work (Chechele and Stofle 2003). Rochlen et al (2004) suggest that clients may find communication via the internet convenient as it eliminates travel time and costs. It may also allow groups access to counselling, who may otherwise not be able to attend a physical location such as people with disabilities or clients in geographically isolated areas. Online counselling can provide a high degree of anonymity, which may make it very attractive to clients. The therapeutic work itself may benefit from the 'disinhibition effect' (Suler 2004), which describes the fact that people may find it easier to disclose difficult information online. This could result in online exchanges between client and practitioner being more open. This fact seems to be confirmed by the work of Finfgeld (1999), which suggests that people are more truthful in computer mediated assessments.

Further benefits of counselling via email could result from the textual nature of exchanges. Email can open a 'zone of reflection' (Suler 2002) and writing per se has been seen as therapeutic (Bolton et al 2004). The written exchange allows a client to re-read past dialogue again and again which can be supportive and increase learning. Furthermore, it is easy for the practitioner to send additional resources such as exercises, articles and web links to a client via email. Finally, a major advantage with email counselling is the degree of control and therefore user empowerment it can offer clients (Graugaard and Winther 1998).

Research into online counselling is still very much in its infancy (Hanley and Reynolds in press). Anthony (2000a and 2000b) investigated the components that made online counselling therapeutic by interviewing 7 online practitioners and one online client. Her findings suggest that rapport via the client's mental constructs, presence, openness and the quality of the written communication including conformity to online conventions are important.

Some studies compared online counselling with traditional face to face approaches (Cohen and Kerr 1998, Day and Schneider 2002) with the results supporting the use of online therapy. Cook and Doyle (2002) compared the online working alliance to face to face therapy and concluded that a working alliance can be established adequately when working online which was also confirmed by Hanley (2008) in his work with young people. However, the results of these studies must be treated with caution as sample sizes were generally very small. Online counselling has also been compared to waiting list control groups with positive results for clients with panic disorders (Klein and Richards 2001), eating disorders (Robinson and Serfaty 2001) and post-traumatic stress (Lange et al 2001).

Finally, some data exists on the availability and uptake of online counselling on the internet. Chester and Glass (2006) surveyed 67 online therapists and found that their clients were predominantly female, presented mostly with relationship issues and the average number of session per client was 5, suggesting that online counselling involved mostly short-term work. Additionally, Chester and Glass (2006) found that when surveying the same online counselling websites again after 8 months 37% of sites no longer existed, raising serious concerns over sustainability and long-term stability of online counselling provision.

There are specific advantages in offering an advice service on sexuality and emotional issues via Sex-and-Relationships (Barak and Fisher 2001, Cooper et al 2002). Firstly, an online service would offer easy access to anybody who is online making it a low-threshold service. Secondly, due to the medium and the lack of travel costs involved both for the client as well as the therapist, it would be a low-cost service to run. Thirdly, clients may feel safer talking about psychosexual issues anonymously via the internet as well as within an online counselling relationship in which the therapist is one step removed from the client. Disadvantages which apply to an online psychosexual service are the vulnerability of people's information whilst in transit and issues around identity such as hoaxes or exploitation by clients of the therapist or vice versa and a difficulty for the therapist to prove his or her professional identity. Issues of protection also surface around professional indemnity insurance for the psychotherapist.

An online counselling service via email on psychosexual and relationship issues via Sex-and-Relationships would be in line with the newly emerging practice of online counselling. Furthermore, it would constitute an innovative, new service, which could reach hard to reach populations. Below I will continue with a discussion of the ethical issues in the developing field of online counselling.

2.1.6 Ethical considerations of online counselling

With online counselling being such a recent development it must be accepted that ethical guidelines for it are still in flux. Additionally, the international nature of the internet is making it hard for practitioners and professional organisations to establish concrete guidelines as online counselling reaches beyond the geographical boundaries of legal jurisdictions. Moreover, the technology itself brings with it new ethical dilemmas (Robson and Robson 2000).

Ethical issues in online counselling have been addressed by the BACP (Goss et al 2001, Anthony and Jamieson 2005) and by the International Society for Mental Health Online (ISHMO 2000). Both organisations have developed best practice guidelines on how to work online. What constitutes best practice in face to face counselling or psychotherapy also applies to online work. Additionally, practitioners must be particularly careful when first contracting with a new client to make every possible attempt at providing clear

information about business arrangements, the online counselling process itself and the possible benefits and risks involved in engaging in it. Ethical guidelines therefore emphasise gaining informed consent to treatment through the provision of information on counsellor credentials and how to check them against independent sources, confidentiality agreements and crisis intervention procedures prior to starting an online counselling arrangement.

Counsellors themselves need to be aware that different countries have different licensing laws covering the practice of counselling and psychotherapy. No clear consensus has yet emerged as to which legal jurisdiction may apply to an online counselling arrangement spanning more than one nation or state. This may be an issue specifically in the USA as different states operate different laws and clients may be more inclined to engage a lawyer should they feel unhappy about the service they have received. Counsellors need to consider displaying appropriate disclaimers on their website and ascertaining that their professional indemnity insurance will cover their online work. Additionally, in the UK clients are generally given the option to complain to a professional body if they have concerns. Online clients should also be able to do so and will need clear information as to who they can approach in case they want to make a complaint. Online practitioners need to be aware that the legal situation with respect to online counselling is still in flux and that they will need to keep abreast of ongoing developments.

Finally, the technology itself poses ethical issues. The main concern for online counselling is that data is not confidential whilst in transit on the internet unless it is encrypted. Although encryption technology is freely available on the internet few people use it. To apply it to online counselling both counsellor and client would need to use encryption software. Clients must be informed what the risks are with respect to confidentiality of data and steps need to be taken to mitigate against them. Additionally, clients need to be made aware that they will be responsible for safeguarding the confidentiality of the counselling dialogue at their own location by making sure that whatever is saved on their own computer stays private. In the UK data protection legislation applies to data which can be linked to identifiable individuals. The online practitioner located in the UK will need to consider how to comply with data protection legislation. This is especially important as online counselling easily allows for the whole verbatim dialogue between counsellor and client to be stored for an indefinite period of time. Another ethical issue in online counselling

involves response times. As email messages can be exchanged instantaneously the practitioner needs to be clear about his or her intended turnaround time, i.e. when a client can expect a reply from the counsellor.

Further ethical issues arise out of the physical distance between client and practitioner. Firstly, the counsellor will need to consider how to authenticate individual clients and how to assess their suitability for online counselling. Procedures need to be agreed to cover events such as a client going into crisis, a technological break down at either the client's or the practitioner's end or an abrupt and unannounced ending of the counselling relationship. Given the lack of non verbal clues and ease of cross-cultural work both client and practitioner need to be aware of the heightened possibility of misunderstandings and must have an agreed route to address ruptures in the therapeutic relationship.

As many of the above issues are specific to online work the BACP (Anthony and Jamieson 2005) recommends that practitioners receive specialist training for working online. Although this discussion of the ethical complexities of working online as a health professional may make it seem that this practice is fraught with difficulties and uncertainties, the work described by Chechele and Stofle (2003) speaks of the power of online therapeutic work as it shows depth and clarity in the counselling process via email. It would suggest that an engagement with the ethical complexities of online counselling is a worthwhile endeavour to offer clients a new and easily accessible route to self-development.

With respect to an email advice service via Sex-and-Relationships, the ethical dilemmas and how they have been managed will be discussed in the results section of this study.

2.2 Specific Literature Review

The following specific literature review covers research projects on online health interventions in general and subsequently online sexual health interventions specifically. Searches for literature were conducted via MEDLINE, PsychInfo and Google Scholar as well as through following references in already collected papers. Search terms used were 'internet', 'world wide web', 'online' and 'web-based' in combination with 'education', 'health promotion', 'practitioner-led', 'psychosexual' and sexual health'. The literature search was focused on the recent years 2000 till 2008 as the field of online health promotion as well as internet technology is moving rapidly and figures published prior to 2000 need to be considered to be outdated. However, some seminal older papers have also been included in this literature review.

Another resource which was used was a series of online reference lists at <http://construct.haifa.ac.il/~azy/refindx.htm> maintained and updated monthly by Azy Barak, PhD, University of Haifa, Israel on internet and social science issues. Dr. Barak has written a number of research papers in the field of internet and sexual health (Fisher and Barak 2000, Fisher and Barak 2001, Barak and Fisher 2001, Barak and Fisher 2003) and can be considered an expert in the field. The main bulk of this literature review was conducted in 2007 and in 2008.

2.2.1 A review of studies on health promotion on the internet

The field of online health promotion is currently a rapidly evolving and pioneering area of study. Online health promotion has been recognised by providers as cost effective, efficient and convenient for people (Duffett-Leger and Lumsden 2008). Figures show that many internet users search for health information online (Brodie et al 2000) and that the top four uses for the internet are for news, shopping, travel and health (Cyber Dialogue 2000). Figures for 2004 suggest that 4.5% of all internet searches worldwide were for information on health or health-related issues (Morahan-Martin 2004). Cummins et al (2003) state that well health consumers on the internet, which constitute roughly 60% of all health consumers, look for general information and preventative medicine whereas roughly 35% of health consumers online are chronically ill or are carers looking for information to help manage an ongoing condition. However, the quality of health information on the internet is seen to be highly variable by health professionals (Rand Corporation 2001).

In the following review of the published literature on online health promotion I will first discuss papers on general issues in the area of online health promotion covering topics such as internet access (Brodie et al 2000, Skinner et al 2003) and how different groups use the internet to access health information (Lorence et al 2006), consumer perceptions of the quality of health information online (Bates et al 2006) and a theoretical model of the online information search process (Lorence and Greenberg 2006) as well as a theoretical model on developing online health resources (Skinner et al 2006). Subsequently, I will review articles on guidelines for publishing health information on the internet (Morahan-Martin and Anderson 2000, Williams et al 2002, Benigeri and Pluye 2003, Evers et al 2003, Cummins et al 2003). Thirdly, I will discuss and critique evaluations of single health promotion websites, which were conducted via a quantitative methodology such as RCTs, meta-analysis or quasi-experimental research designs (Sciamanna et al 2002, Williams et al 2002b, Lenert et al 2003, Watland et al 2004, Van Wier et al 2006, Flocke et al 2006, An et al 2008). Following, I will discuss and critique evaluations of single health promotion websites using a naturalistic research design (Marton 2000, Wilson et al 2001, Young et al 2002, Pinnock and Jones 2003, Linke et al 2004, Anhoj and Holm Jensen 2004, Papadaki and Scott 2005 and 2006). Finally, I will review evaluations of email advice services (Hahn 1998, Kanzaki et al 2004, Webb et al 2008). I will close my review of the literature on online health promotion with a summary of the important points learned from the literature with reference to the research questions posed in this study.

2.2.1.1 Internet access and health information online in general

Two early studies reviewed access to online health information for different populations. Brodie et al (2000) conducted telephone surveys to assess the importance of the internet as a vehicle for accessing health information. Their study suggested that the internet is already a good tool for promoting health information including for lower-income, less-educated and minority Americans. However, they also found that a clear digital divide still existed for lower-income African Americans. Access for women and men was similar, however, women tended to have less internet access at home. On the other hand, women were more likely to look for health information on the internet. 19% of health information sought was on sexual health related issues such as birth control, HIV and STDs.

Skinner et al (2003) also enquired into issues of internet access for health information, but focused on young people. They used 27 focus groups with young people in Ontario, Canada, to evaluate young people's perspectives on using the internet to access health information. They found that although many young people had access to the internet, the quality of their access posed significant barriers to using the internet to search for health information. An important factor was the lack of privacy as embarrassment was a key concern for young people who were very aware of who might be watching them or who might be able to access the history lists of their computers revealing the websites they had accessed. A second barrier was the use of filtering software such as cybernanny programmes, which meant that young people could not access all the health information they wanted. Additional barriers included time constraints and functional issues such as lack of bandwidth. The authors concluded that the quality of access needs to be considered when discussing use of the internet for health promotion amongst young people not just quantitative figures for technology penetration. They also suggested that barriers influenced disadvantaged populations more strongly.

A more recent study on how different groups use the internet to access health information uses data from 2004 and 2005. Lorence et al (2006) conducted surveys collecting information on online and offline health information seeking and demographic data of online health consumers using a sample of 1495 internet users. The majority of their online health information seekers looked for information only once every few months (76.30%), but 77.30% said that the internet had improved their access to health information. The researchers also found that the health condition of the searcher is the most crucial motivating factor and lack of internet experience, defined as using the internet for less than 1 year, was the strongest predictor of a barrier. Health information seeking was connected with gender, age, race, and ethnicity, internet experience, frequency of internet access, marriage status and health condition of the participant.

An interesting study by Bates et al (2006) surveyed a community-wide convenience sample in Ohio, USA, to see whether people evaluated online health information differently if they were told it was from a known, reputable organisation as compared to being told the same information was from a non-specific website. The results suggested that an attribution to a specific source did not have a significant impact on how users rated the health information presented. However, this study used a convenience sample, which could mean that

individual participants may not have been highly motivated to assess the quality of the information presented to them. Additionally, the health information the researchers presented was on lung cancer prevention, an area many participants may have been familiar with and where they felt that they could assess the quality of information for themselves rather than having to refer to external reference points to assess quality. As can be imagined, this result did not sit easy with the health professionals.

A theoretical perspective on online health promotion is taken by Lorence and Greenberg (2006) who reviewed the whole area of online health searching through analysing data collected from two focus groups of experts on online health promotion. The authors considered for the first time the implications of internet technology on online health information seeking by suggesting a step-wise, incremental model of how information is retrieved online including the individual steps of search decisions, search strategies, results compilation, site selection and site content review. Unfortunately, Lorence and Greenberg (2006) failed to comment on their model in detail, which left the present author wondering exactly how to interpret their model.

Lorence and Greenberg's model (2006) of an incremental search process (See diagram 3 below) starts with the consumer who has a health question or issue and decides to seek information online. Variables, which are affecting this step, are internet access, literacy and language. In the second step the consumer chooses a search engine and types in a search term. Variables, which are affecting this step, are search behaviour and assessments of credibility, presumably of the search engines. The next step involves the search engine process, which searches through all indexed websites and lists search results. Variables, which affect this step, are the type of search engine used, search algorithm, ranking algorithm and paid listings. Fourthly, the consumer chooses sites from the search results. Variables, which are affecting this step, are positioning of results, consumer quality evaluation and expert evaluation of quality. However, how the latter is meant to influence site selection by consumers from a list of ranked websites is not evident to the present author. Finally, the consumer reviews the information on the website itself and is influenced by the actual quality and accuracy of information, its relevance to consumer needs and the consumer's ability to comprehend the information.

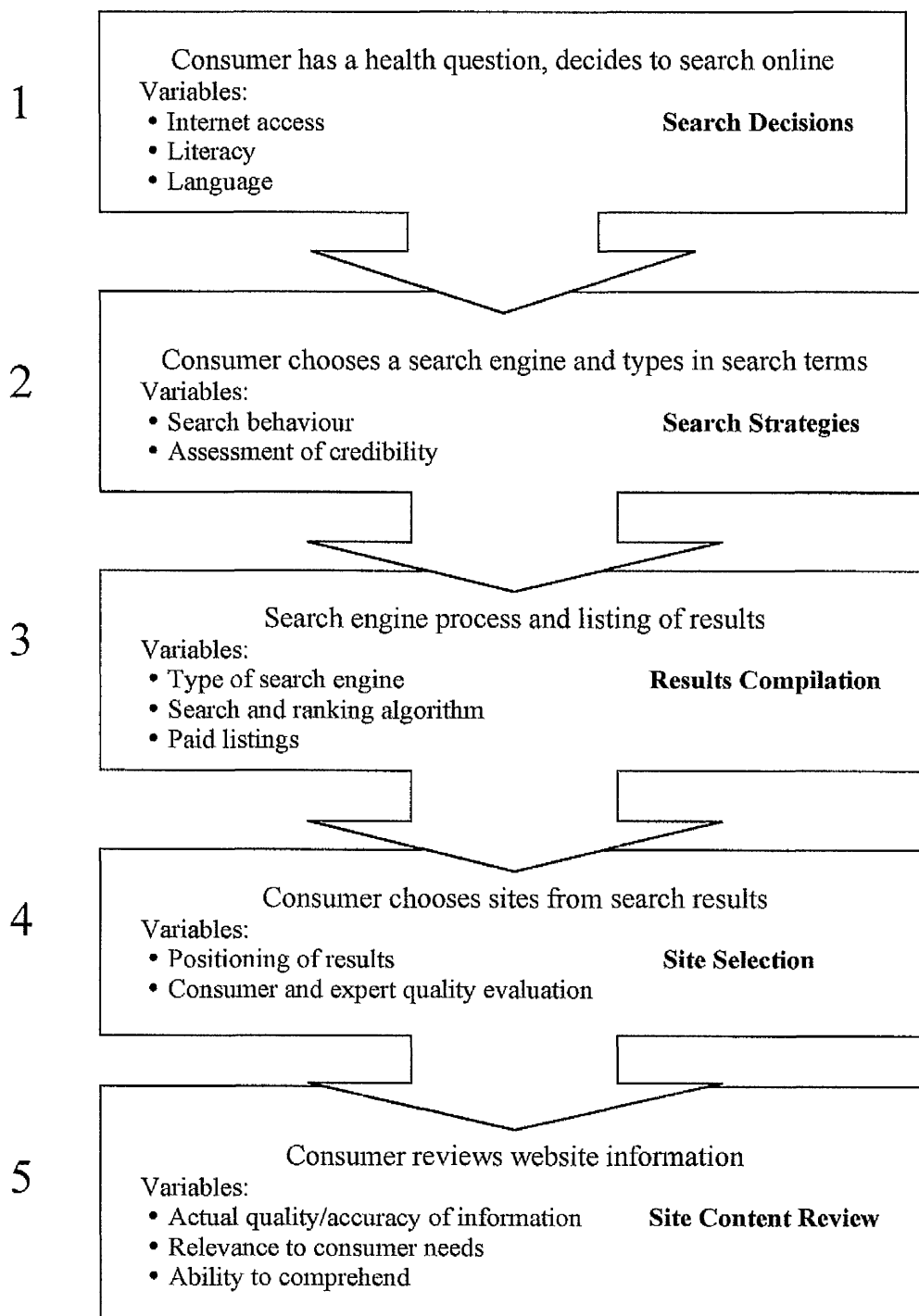


Diagram 3 Incremental search process model by Lorence and Greenberg (2006), adapted

The focus group discussions were structured around 5 issues and revealed a consensus on the importance of commercial search engines for accessing health information online. As search engines do not reveal their search algorithms the experts agreed that they could not

improve health searches made via commercial search engines. They also suggested that consumers would need to be educated about health information online and suggested to aim for health search literacy (Lorence and Greenberg 2006).

A further theoretical perspective is offered by Skinner et al (2006) on developing high-quality online health resources through their spiral technology action research (STAR) model. The model is designed to give guidance to health promotion experts on how best to develop resources online. Skinner et al (2006) use an action research method that *'comprises five cycles (listen, plan, do, study, act) that weave together technological development, community involvement, and continuous improvement'* (Skinner et al 2006: 406). The authors focus on how to optimise online health promotion projects and are concerned about literacy levels, accessibility and relevancy to the target population.

Their use of action research includes rapid cycle change strategies as well as longer cycles of listening, planning, doing, studying and acting (see diagram 4 below). This introduces constant feedback and dialogue into the development of online resources aiming to tailor a project as closely to the target groups' needs as possible. Skinner et al (2006) also introduce an ongoing open dialogue directly with the target population through focus groups and constant feedback into all development phases.

The first development phase, listening, includes a needs analysis and gathering of ideas from the target population itself. In phase two, the planning phase, ideas are structured into guidelines as to how to develop a project. The guidelines aim to deliver a resource, which is built around people rather than technology-centred. The third development phase, doing, sees the implementation of the drawn up plans whilst checking against finances and feasibility issues. Subsequently, in phase four, namely studying, the project is evaluated and reviewed. In the last phase, act, the project is launched with ongoing provision for updates aimed at website sustainability. Throughout the whole process issues in technology design are constantly weighed up against feedback from the target community. Skinner et al (2006) also envisage financial implications for advertisement and dissemination in the target community.

Pinnock and Jones 2003, Gilbert et al 2005) and none have been found to state plans for ongoing maintenance, Skinner et al's (2006) approach seems revolutionary. However, Skinner et al (2006) do not seem to take the evolutionary and ever changing nature of the internet itself into consideration as they do not plan for using the intrinsic features of the internet, such as search engines, to best advantage for health promotion resources (Lorence and Greenberg 2006). When talking about accessibility Skinner et al (2006) refer mostly to issues around language and technology rather than how visitors may actually located a website on the internet.

Also, Skinner et al's (2006) model implicitly suggests the use of a team of people as well as the availability of a substantial budget for the development of an online health resource. This is certainly beyond what a single practitioner can muster and may well be beyond what most NGOs can afford. Furthermore, although they include a focus on ongoing maintenance and sustainability, the present author believes that they do not emphasise this point enough in their current model. The internet, the medium in which an online health promotion project is fully embedded, is always changing. Additionally, search engines such as Google favour websites, which are being changed frequently and thereby presumed to be updated on a regular basis. Online health promotion projects need to constantly adapt too to keep up to date with current levels of knowledge, technology and relationships with other projects online.

In summary, the literature up to now suggests that people are using the internet to access health information (Brodie et al 2000, Lorence et al 2006). However, not everybody has access to the internet and the existence of a digital divide along ethnic and gender lines must still be assumed to exist even in the Western world (Brodie et al 2000). Barriers to internet access influence disadvantaged populations more strongly (Skinner et al 2003). Additionally, the quality of access especially with respect to privacy must be considered (Skinner et al 2003) for online health promotion projects covering topics, which the searcher may feel embarrassed about. The health condition of the searcher is the main motivating factor for online information searching (Lorence et al 2006). Contrary to the importance professionals assign to authoritative sources for health information, consumers themselves may not assess the quality of information they find via source attribution (Bates et al 2006). Lorence and Greenberg (2006) have proposed a theoretical model of the online health information search process suggesting 5 distinct steps, which can help professionals

consider the influencing variables in how consumers locate health information online. Skinner et al (2006) have developed an exciting and innovative approach to the development of online health promotion resources with the use of action research methodology. The spiral technology action research model aims at integrating technology design issues and the needs of the target community through an evolutionary process of ongoing feedback and evaluation.

2.2.1.2 Guidelines for evaluating online health information websites

Given the fact that anybody with internet access who wants to publish online can easily do so, the quality of information presented on the internet has been a major concern to professionals in the health field (Rand Corporation 2001, Lorence and Greenberg 2006). A number of writers (Morahan-Martin and Anderson 2000, Williams et al 2002, Benigeri and Pluye 2003, Evers et al 2003, Cummins et al 2003) have explored the issues around assessing the quality of health information online as well as developing guidelines for evaluation and website development. A range of key elements which can be used to evaluate health information websites have been proposed such as source and sponsorship, authorship, coverage of topic, objectivity versus quackery and inflammatory remarks, currency and maintenance, site design and privacy (Morahan-Martin and Anderson 2000). Cummins et al (2003) state that privacy issues, authority of a website and credentials of the developers, editorial quality and evidence for any behaviour change programme presented on a site are important factors that ensure quality.

Williams et al (2002a) discuss the evaluation of health information websites in more depth. They suggest that websites need to be evaluated with respect to the type of website they aim to be and that different criteria need to be applied for different genres. Within their categories Sex-and-Relationships can be seen as an information provider with the respective criteria being information quality, accuracy and authority of content, usability issues such as navigation, site facilities such as multi media and communication links and relevance of materials to a particular target group (Williams et al 2002a).

One set of influential guidelines for online health information has been developed by the Health on the Net Foundation (HON 2007). They suggest eight principles as guidelines for web developers (see diagram 5 below). They are firstly 'authoritative', meaning that a

website should indicate the qualifications of the authors. Secondly, they use the term 'complementarity' to state that health information websites should not aim at replacing a physician, but should work as a complement to the medical profession. Thirdly, 'privacy' pertains to a respect for privacy and confidentiality of data submitted to a website. Their next criterion is 'attribution' stating that the sources of health information should be stated clearly. Following on is 'justifiability' suggesting that a website needs to justify and back up any claims it may make. 'Transparency' suggests accessible presentation and lay out as well as an accurate email contact. 'Financial disclosure' states that websites need to disclose funding sources for a website and finally, 'advertisement policy' suggests that advertisement needs to be clearly distinguishable from editorial content. The HON invites health websites to conform to its standards and to apply for membership allowing a website to display their quality assurance symbol on their site. However, the HON states that any sites displaying advertisements for pornographic websites will be removed from the HON accreditation process (HON 2007), thereby potentially excluding websites, which focus on sexuality and sexual health.

The screenshot displays the HONcode website interface. At the top, there is a header with the HONcode logo and the text "Health On the Net Foundation". Below the header, there are navigation links for language (EN | FR | DE | SP | CN) and speech settings (SPEECH: ON / OFF More info?). The main content area is titled "HON Code of Conduct (HONcode) for medical and health Web sites". On the left side, there is a sidebar with a search bar and a list of languages: Arabic, Basque, Catalan, Chinese Simplified, Chinese Traditional, Czech, Danish, Dutch, English (selected), Esperanto, Finnish, French, German, Galician, Greek, Hebrew, Hungarian, Icelandic, Italian, Japanese, Korean, Macedonian Latin, and Macedonian Cyrillic. The main content area lists eight principles of HONcode, each with a brief description and a link to the complete version.

Principle	Description	Complete Version
1. Authoritative	Indicate the qualifications of the authors	> complete version
2. Complementarity	Information should support, not replace, the doctor-patient relationship	> complete version
3. Privacy	Respect the privacy and confidentiality of personal data submitted to the site by the visitor	> complete version
4. Attribution	Cite the source(s) of published information, date and medical and health pages	> complete version
5. Justifiability	Site must back up claims relating to benefits and performance	> complete version
6. Transparency	Accessible presentation, accurate email contact	> complete version
7. Financial disclosure	Identify funding sources	> complete version
8. Advertising policy	Clearly distinguish advertising from editorial content	> complete version

Diagram 5: Screen shot of the eight principles put forward by the Health On The Net Foundation located at <http://www.hon.ch/HONcode/Conduct.html>, downloaded 2.4.08

Williams et al (2002a) discuss different ways in which online health information sites can be assessed. One common strategy is through direct inspection, which is the Health On The Net Foundation's strategy. Additionally, Williams et al (2002a) state that websites can be evaluated via a contextual inquiry, which consists of interviewing and observing potential users. This strategy could also include an analysis of the information needs of the target group for a site. Thirdly, they suggest that a website can be evaluated via user studies, which means real or potential users are given specific tasks to achieve to test the functionality of a site. In the literature of single website evaluations discussed below all three strategies are used by researchers. However, most studies include elements of

artificiality, such as recruiting students offline to evaluate a health information website which features health information content on chronic diseases that people in their early 20s may not be interested in (Williams et al 2002b). In my opinion this lack of naturalistic research designs biases the data generated. The online environment of a website such as its position in the search engines as well as the internal world of the human consumer such as motivation and interest in a specific health topic will greatly influence how somebody finds and interacts with a specific health information website. To exclude these elements from evaluation studies of health websites appears to undermine the research findings.

Benigeri and Pluye (2003) raise additional points in their general discussion of the shortcomings of online health information. They suggest that it is difficult for the public to evaluate the scientific quality of information. Additionally, available information is often incomplete which makes it harder for the public to make informed choices. Thirdly, they underline the importance of accessibility of health information stating that many readers may struggle with technical terms and the required reading levels. Benigeri and Pluye (2003) come to the conclusion that *'It is important to learn how people use the internet, what information they need, and how this information must be organized and presented so that they can use it adequately to maintain and improve their health.'* (Benigeri and Pluye 2003: 384). This comment strongly suggests the necessity for naturalistic research approaches to study the accessibility and use of health information online by involving real consumers of health information. Benigeri and Pluye (2003) also suggest that public health practitioners must be part of the design and writing of health information websites. Additionally, Evers et al (2003) suggest that there is a growing consensus that individually tailored health communication works best for health behaviour change. In their evaluation of 37 online health behaviour change programmes only 13.5% used individually tailored feedback. This suggests to the author that not only do health professionals need to be part of the design and writing stages as stated by Benigeri and Pluye (2003), but that health professionals also need to have an ongoing involvement with the running of a health information website ideally by being able to give individually tailored feedback to website users.

To summarise, general discussions on evaluating health information online focuses on specific criteria proposed for health websites such as information quality, accuracy and authority of content, usability issues, site facilities and relevance of materials (Williams et

al 2002a). One set of international guidelines comes from the Health On The Net Foundation (2007) which encourages websites to be assessed via their criteria and subsequently to display the HON's quality assurance logo on their homepage should a website be accepted. However, the HON guidelines may exclude websites, which feature 'adult content' and may discriminate against sexual health information websites. Benigeri and Pluye (2003) stress the importance of health practitioners being part of the design and writing phases of health information websites. Additionally, individually tailored feedback has been found to be the most effective tool for health behaviour change (Evers et al 2003, Duffett-Leger and Lumsden 2008), which suggests that health practitioners should have an ongoing involvement with online health promotion projects.

2.2.1.3 Evaluations of health promotion websites via quantitative methodologies

Quantitative methodologies which have been used to evaluate the impact of health promotion websites and behaviour change programmes online are randomised controlled trials, experimental designs, mixed methods research and meta-analysis (Sciamanna 2002, Williams et al 2002b, Lenert et al 2003, Anhoj and Holm Jensen 2004, Watland et al 2004, Flocke et al 2006, An et al 2008). The following section will discuss the few available studies in more detail.

One of the earliest papers evaluating a single website is by Sciamanna et al (2002) studying user attitudes towards a physical activity promotion website. They used a randomised controlled trial design to survey participants, which were recruited offline after 1 month regarding barriers, frequency of use and overall perceived helpfulness of the site. They found that the website was overall well accepted and that the main barrier given by participants was lack of time. Sciamanna et al (2002) unfortunately say very little about how they developed the website itself.

A more in-depth study was completed by Williams et al (2002b) in the same year. Reporting on their study of a commercial health promotion website called 'Surgerydoor', Williams et al (2002b) recruited 20 MSc Information Science students to review the website with respect to usability, including navigation and readability and attractiveness of the information and overall design. They set their participants 4 specific timed search tasks and observed students as they completed the tasks. Their results showed that users were

unhappy about large amounts of text on each web page and found it hard to locate material, as navigational menus were not consistent. With respect to the content users thought the information was well written and interesting. However, they did not like the commercial features of the website.

The findings of Williams et al (2002b) seem to the present author very much determined by the methods chosen to evaluate 'Surgerydoor'. One of the factors, which in my opinion biases the results, is their recruitment of 20 MSc Information Science students as evaluators. Firstly, recruiting participants offline at their University completely circumvents any issues involving search engines and how normal users may locate a specific website. However, the ability to locate a specific site on the internet has a huge impact on its use in real life. Furthermore, Williams et al (2002b) state that they did not use a quota system for age, gender or other characteristics and only describe their sample as consisting of 14 females and 6 males, which reflect the normal population of MSc Information Science courses. I believe it is highly likely that their sample consisted mainly of young adults in their mid twenties who therefore may not be very interested in information about health presented on the website. Furthermore, all the search tasks were pre-set by the researchers further limiting the ability of participants to engage with the website in a way that was meaningful to them. Tasks were also timed with the researchers being present. Williams et al (2002b) themselves comment on their findings stating '*... [participants] may not have felt that it was appropriate to spend lengthy periods in silent reading.*' (Williams et al 2002b: 219).

Further interesting findings were that the participants found the logo to be too small and that there was too much information crammed into the home page. The site displayed a prominent banner advertisement on the top of the home page with changing content which participants found distracting. Additionally, participants found the changing navigational aids confusing. Williams et al (2002b) offer the following suggestions for the design of health promotion websites: Larger, better placed logos to give a site clear identity, navigational aids should not be excessive, navigational bars need to stay constant and not change with different pages, commercial features are not well received, pages should not be too crowded with text and that users appreciated external links and diagrams. Overall, Williams et al's (2002b) study gives some direct and useful suggestions for the design of health promotion websites despite the limitations of their chosen methods.

A quantitative evaluation of a smoking cessation programme was conducted by Lenert et al (2003). The programme follows a cognitive behavioural approach with 8 modules including exercises, lessons, tools for self-monitoring and coping strategies. Participants were recruited online, however, people were screened rigorously for eligibility, which meant that participants needed to be willing to give up smoking in the next 30 days. The authors had 1,048 smokers who were interested in taking part and only 49 were eligible to be included in the study. 42 completed the online base questionnaire and 40 set a quit date. Of those 40 only 10 completed all 8 modules with the median number of return visits to the site being only 2. In the evaluation survey several participants commented that the website was complex and difficult to navigate. The researchers admit that their design might have been too difficult to navigate. They also suggested that their mostly written materials did not hold the participants' attention. They state that they used automated emails to remind participants to visit the site, which seems to have been experienced by some participants as spam. Overall, the researchers state that their results were mixed, that some people did quit smoking but that few completed the educational modules. Unfortunately, the authors say very little about how the website was designed or what procedures were followed to design the site. They do not seem to have piloted their web-based intervention or involved users in the design process. Clearly, their intervention seems to show some potential, but they do not seem to have considered the end user during the development process.

Another study into a smoking cessation project, this time for college students, was conducted by An et al (2008). The intervention involved visits to an online college life magazine, personalized smoking cessation messages and the offer of weekly email peer support. Evaluation at baseline, 8, 20 and 30 weeks after enrolment showed that 30 day abstinence was increased after the two semester intervention. However, the researchers used monetary incentives very freely throughout the research study making it highly unlikely that a similar approach without incentives would work.

Anhoj and Holm Jensen (2004) evaluated an online life style change website called Medica-Heart, which aims at encouraging patients to make sustainable long-term life style changes. For the evaluation the researchers recruited 9 GPs who each recruited between 2-5 patients to use the site and complete a survey. The programme required a log in and then offered a series of in-depth questionnaires to analyse food intake, calories and energy expenditure. Additionally, it used computerized tailored email feedback to suggest life style

changes. The results of this study showed that the website was not taken up by participants. The participants seemed keen at the start, but fairly quickly stopped engaging with the website. Additionally, participants reported not learning anything new from the website. The researchers discussed their results and suggested that participants were expecting a short-term diet programme rather than a tool for long-term life style change. Furthermore, participants did not seem to trust the information they received in the tailored, but automated feedback emails as some of the results were potentially wrong or counter-intuitive. The researchers concluded by stating that patients seem to want personal contact with health care professionals to motivate them to change. Medica-Heart seems to have used very detailed questionnaires to evaluate food intake, calories and expenditure which may have been too complicated for service users. No assessment of the information needs of service users was undertaken nor were any end consumers of the programme involved in the design and planning stages.

A meta-analysis of 22 studies conducted in 2004 by Watlant et al (2004) reviewed all available research to see whether web-based interventions worked compared to non web-based ones. Their analysis showed that web-based interventions work and that users of these online structured programmes sustain behavioural change after the intervention finishes. The outcomes included increased exercise time, increased knowledge of nutritional status, increased knowledge of asthma treatment, increased participation in health care, slower health decline, improved body shape perception and 10 month weight loss maintenance. Watlant et al (2004) suggest that web-based interventions could be extremely useful for managing chronic illness, which puts a high emphasis on coping skills in each individual patient.

A major randomised controlled trial to evaluate a distance counselling programme for weight control was conducted by Van Wier et al (2006) in the Netherlands. Their sample consists of 1500 employees who were randomly assigned to 3 different treatment options, namely internet and phone delivery of a treatment programme based on cognitive behavioural principles and a control group. Each participant was weighed at the beginning of the study and had their BMI calculated as well as blood cholesterol levels monitored. The intervention itself covered 6 months with 10 sessions including fortnightly input from a counsellor and home work assignments as well as the option to contact the counsellor in between sessions. The aim of the study was to compare phone and internet delivery

strategies. The result of the study are not available yet (autumn 2008), but the study hopes to make a substantial contribution to the development of a low-cost and effective weight control intervention.

Finally, a research project using a mixed methods approach evaluated the impact of training GPs to suggest a local website for health improvement advice and community resources to patients (Flocke et al 2006). Flocke et al's (2006) study is based on the idea of an 'information prescription' which means that GPs could direct their patients to high-quality online health information or local community resources. They found that although GPs did increase their effort to deliver the additional health promotion message after training it was not effective enough to show up as a significant behaviour change in patients. However, the authors also suggest that sustained implementation efforts were minimal and that therefore even a modest increase in referrals to the online resource was promising. This research project did not use the intrinsic features of the internet such as search engines to promote a local health and community resource website and the research evaluated only a very short-term intervention. To the present author this points to the importance of long-term, evolutionary and adaptive development processes for online facilities to reach their full potential.

To summarise, to date only a small number of quantitative evaluations of single health promotion websites have been conducted. A meta analysis of 22 other studies conducted before 2004 (Watlant et al 2004) shows that web-based interventions work. However, some individual projects report serious design flaws suggesting that online health promotion projects could still be improved greatly (Sciamanna et al 2002, Williams et al 2002b, Lenert et al 2003, Anhoj and Holm Jensen 2004, An et al 2008). Williams et al (2002b) give some suggestions on how to improve health website design, namely by using a large, well placed logo, few, but clear and reliable navigational aids, limited advertisement, pages which are not too crowded by text and the inclusion of external links to other online resources. Quantitative research designs commonly used for health information website evaluations may mean results may not be transferable to the real online environment due to omissions inherent in experimental designs. Additionally, quantitative studies rarely mention design processes, do not conduct user information needs assessments or plan for long-term maintenance or development of studied websites.

2.2.1.4 Evaluation of health promotion websites using naturalistic research designs

Naturalistic research designs can allow for the evaluation of health information websites in situ, i.e. whilst they are live on the internet being accessed by real service users. Therefore, these studies are able to capture the pressures and necessities imposed by the online environment on health information websites such as how they are located by service users and whether the information can really engage the intended target audience or not. The following section provides a discussion of studies evaluating health information websites via naturalistic research designs.

Marton (2000) is one of the first to evaluate a health promotion website, namely a women's health website, with the use of surveys and focus groups. However, she uses only a very small sample of self-selected participants, which were mostly recruited offline. The project she researches is in the prototype stage comprising two separate modules with information on osteoporosis and high blood pressure targeting women. The results showed that overall users agreed that the site was interesting and engaging. Additional features participants commented on were the potential usefulness of an A-Z index, a dislike for advertisement and that poor navigation reflected negatively on the content of the website. Participants gave high regard to health websites written by organisations and practitioners.

Subsequent naturalistic website evaluations review projects which have been developed on a much bigger scale both in terms of finance and manpower. Wilson et al (2001) developed an arthritis education website and investigated its use over two years. Their project is located at a university in the UK and they state that the content for the site came from a multi-disciplinary team as well as The Arthritis Research Campaign UK. Unfortunately, the researchers do not give any details about how the content was developed or the cost and time involved. The authors state that their data for website usage comes from log files which seems to track individual users and not data packages as is normally implied by this term. However, the authors do not give further details on the software they used to track visitors and it is therefore impossible to be sure what their figures really mean. Their results showed that on average 288 people visited the site per day with most users coming from the USA and 49% from the UK. On average visitors stayed between 2 and 4 minutes (43%) with 50% of users staying up to 30 minutes and 7% over 1 hour. However, the authors fail to mention that the time span a computer records for visitors staying on a site may not be

equivalent to the time users spend actively engaged with the website. Service users may have taken a phone call or made a cup of tea whilst leaving the website on their screen. Most of the referrals for the arthritis website came through one search engine, namely Excite. Additionally, the authors used surveys to collect more data on visitors. They state that their typical survey participant was an American female with arthritis aged above 30 who was accessing the internet from home. In conclusion, the researchers state that it is important to use the systems of the internet, namely browser software, search engines and hyperlinks to deliver information effectively on the internet.

Another website developed by a second group of online health promotion researchers at the same university focused on information for systemic lupus erythematosus patients (Young et al 2002). In this study the researchers began with an information needs assessment conducted online and offline by surveying 30 patients. They subsequently developed the website and studied its use for 2 years. The researchers state that they checked their texts according to the Flesch readability formula incorporated into the Microsoft Word 97 package, meaning that their texts should be easily readable by somebody with the reading ability of a 6th or 7th grader. The website itself was hosted under the web domain of the University of Birmingham which will have given it a preferred ranking in search engines due to its academic URL address. The researchers used 'access logs' to assess how many service users visited the site per day and state that the homepage was recalled on average 20-30 times per day. Unfortunately, it is not clear to the present author what software the researchers used to collect these figures nor whether they represent individual visitors or individual occasions when the home page was recalled. Additionally, the study used surveys to collect information from visitors. During the two-year period 510 people filled in the online survey with feedback about the site of which 420 participants suffered from lupus themselves. 63.6% of the survey participants came from the USA and 25.5% from the UK. Feedback from the survey showed that many patients thought that previous information on lupus had been too basic and a greater variety of information was wanted. A higher proportion of people from the UK found the information too hard to read and one third thought it was too basic. The researchers conclude that the internet could be the preferred option to support people with chronic illnesses as they might be more willing to confide and use this medium. The age of users seemed to be irrelevant to acceptability.

A very interesting project was conducted in Australia on providing information for men with prostate cancer (Pinnock and Jones 2003). The researchers conducted an information needs assessment via a survey to establish what visitors might want from a website on prostate cancer. The site itself was funded by a grant from the Lion's Club Australia and the project was subsequently promoted online and offline and its use evaluated over the following two years. The researchers used the term 'server log numbers' to describe site usage, stating that the site averaged 150,000 hits and 15,000 page views per month. Unfortunately, they do not clarify what the terms 'hits' and 'page views' refer to, however, it is most likely that 'hits' may suggest requests for individual data packages and 'page views' the number of individual web pages which were requested. This data does not allow an inference as to how many individual users accessed the site as a visitor could on the one hand simply glance at the homepage and click away again or on the other hand take time to read many of the web pages on the site. The authors stated that their page view numbers increased dramatically over the time period of the research and that the site seems to have been well used. Their growth figures show a clear link to offline promotion and the researchers therefore suggest that offline and online promotion need to go hand in hand and recommend an advertisement strategy for other projects. Their figures are interesting as they show a rise in site usage with time suggesting that websites need to 'mature' and develop over time. With respect to offline promotion however, the researchers do not acknowledge that this is firstly very costly and secondly may simply not be possible for a health promotion website that is not targeting a geographically localised area as is the case for their own project.

An additional feature of Pinnock and Jones' research project (2003) is an integrated email advice service on their website. The researchers state that their site received 437 queries over 2 years with 353 being posted to the site itself with answers. The present author presumes that this means that 353 out of 437 email were sensible queries on the topic of prostate cancer and that the additional emails may have constituted enquiries by other professionals or hoaxes. The section of the website which contained the answered queries was heavily used, which the researchers suggest is consistent with the non self-disclosing style of information seeking often associated with men. Overall, the researchers conclude that an assessment of patient needs must be integral to website development.

A slightly different research project by Linke et al (2004) evaluated a web-based behaviour change intervention for people with excessive alcohol consumption. This website offered a six-module online treatment programme developed from a manual including features of motivational interviewing and cognitive behaviour therapy. This project consisted of a homepage, a screening test and weekly modules. Users had to log in to access the content and were only allowed to do so once a week. Email reminders were sent to people who had signed up, but had not accessed the content on a weekly basis. The results showed that the site had 1038 visitors on average every month over a 6 month period. In total 1319 people registered to complete the behaviour change programme of which only 26% stated that they had learned about the site through offline means. This suggests that the developer's offline promotion had not worked very well despite considerable effort. Of the 1319 people who registered only 61.8% completed week 1 resulting in a drop out rate of 40% and only 6% completed week 6. Little information was obtained from those who dropped out, but some reported that the programme had been too time consuming (Linke et al 2004). The most important recruitment method was through the search engines and other features intrinsic to the internet.

A more recent health promotion website was developed by Papadaki and Scott (Papadaki and Scott 2005 and 2006) in Glasgow on healthy eating following a Mediterranean diet. Papadaki and Scott developed a website with advice on healthy eating which they evaluated via user log-ins, surveys and focus groups and compared to a control group with minimal information input. Additional to the main text of the website the researchers supported their participants via tailored email feedback and email reminders to use the site. Participants were recruited offline from the pool of University staff and were all female, Caucasian and with the majority having completed a university degree. With respect to the website development process Papadaki and Scott (2006) mention generally that they focused on colours, that their texts were written in non-technical language and '*in a friendly and encouraging tone*' (Papadaki and Scott 2006: 207) and that format and layout of the website were simple and easy to use. They developed 682 pages of content in total over the 6 month period, but state that the size of each page was very small to avoid scrolling down.

The results showed that internet education and tailored dietary and psychosocial feedback led to more favourable dietary changes at 6 months compared with general healthy-eating information and minimally tailored feedback. Papadaki and Scott (2005) also found that

internet technology enhanced the tailored feedback and that tailoring the feedback to individual participants' needs seemed to work better than the computer generated feedback used in other studies. The participants in this study state that the greatest barrier to using the website had been lack of time. Papadaki and Scott's (2005 and 2006) study follows a naturalistic design evaluating quantitative measures of website usage as well as qualitative feedback. However, their project does not take into account any of the features of the internet such as search engines and general access as participants were recruited offline and the site was hosted on a university intranet. Papadaki and Scott (2005 and 2006) also had an ongoing offline relationship with participants through an initial face to face interview, ongoing email support and face to face focus groups at the end of the study. Although their results are encouraging, it is therefore not clear whether a website which is accessed by users only online with no additional individual support from a researcher or practitioner would have the same impact.

To summarise, some research studies have now been conducted evaluating single health intervention websites using naturalistic designs (Marton 2000, Wilson et al 2001, Young et al 2002, Pinnock and Jones 2003, Linke et al 2004, Papadaki and Scott 2005 and 2006). The studies show that websites with online health information are well used by users, although some of them are not clear as to how they arrive at their stated visitor numbers (Wilson et al 2001, Young et al 2002, Pinnock and Jones 2003) and fail to comment on the impossibility of knowing how users spend their time whilst their browsers display a website. Pinnock and Jones (2003) stress the importance of an information needs assessment prior to design and writing of a health information website whilst other writers (Wilson et al 2001, Linke et al 2004) underline the importance of using the intrinsic systems of the internet to deliver health information effectively.

2.2.1.5 Use of email advice in health promotion projects.

Unfortunately, little research has been conducted into the use of email as a way of supporting people online. Hahn (1998) conducted a study evaluating the email advice service of an IT student support service at a university. She analysed all email queries received during one month and interviewed staff and service users. She found that most service exchanges were brief and that most discussions were initiated by staff seeking further information. Missing information was often experienced as a problem. Her most

interesting finding is that staff and service users seemed to hold different expectations for the advice exchanges. Staff were more likely to consider an extended dialogue between service users and themselves beyond a single message response pair as normal. Service users on the other hand indicated that their ideal exchange would be to describe a problem and receive a quick response with clear and simple instructions (Hahn 1998). Therefore, Hahn concluded that staff may write incomplete responses to queries due to their expectations of a continuing dialogue. '*Service providers need to be aware that clients expect the briefest possible exchange.*' (Hahn 1998: 131) Additionally, she suggested that time delays and incomplete responses hindered the efficiency of the service.

A second study, which used a web-based version of email as a support mechanism, was a study into the daily coping strategies of patients with rheumatoid arthritis in Japan (Kanzaki et al 2004). The data for this study was collected via the internet and participants could log themselves into a website to leave pre-set quantitative and qualitative data as well as open-ended, personal comments. Participants were encouraged to use the site on a daily basis and received a reply from the researcher via the website to each qualitative entry. The study concluded that the internet can offer a fast and interactive way to manage daily symptoms in chronic diseases. Many of the participants found that taking part in the research had been beneficial to them in terms of symptom management and counselling. The researchers stated that the asynchronous set up of their online exchanges similar to email seemed to improve access for participants as it allowed them to interact with their own computer equipment in their own time (Kanzaki et al 2004).

Webb et al (2008) described a moderated bulletin board called 'Reach Out!' for young people aged 16-25 in Australia providing support for mental health issues using peer moderators and professional supervisors. The paper described a very successful service, but does not offer any further contributions to this study.

A further source of information on online email advice comes from the previously mentioned study by Pinnock and Jones (2003). Their research focused on a website with information about prostate cancer in Australia. The email advice service of this website received 353 serious enquiries over 2 years.

The sparse research, which has been conducted up to now into online email advice suggests that email advice is a useful medium for health promotion (Pinnock and Jones 2003), ongoing support for chronic disease management (Kanzaki et al 2004) and mental health support (Webb et al 2008). A study from the field of IT support suggests that users of email advice services may want only the briefest possible exchange receiving a clear answer to their stated question rather than an ongoing dialogue (Hahn 1998). This seems an important piece of information to keep in mind for an email advice service on Sex-and-Relationships.

2.2.2 Review of studies on sexual health promotion on the internet

The combination of sexuality and the internet has offered both cause for great concern (Cooper and Griffin-Shelley 2002) as well as generated excitement for sex education and sexual exploration (Döring 2000, Podlas 2000, Cooper et al 2002, Leiblum and Döring 2002, Schauer 2005). Cooper (1997) postulated that the internet was able to intensify emotional reactions to sexuality due to what he called its triple A-engine, namely access, affordability and anonymity. Access described the fact that the internet is available and convenient and that sexual services can be accessed without the need to delay gratification (Cooper and Griffin-Shelley 2002). Affordability suggests that the internet offers a vast range of sexual material for a comparatively small price as online businesses do not need to invest in premises or stock (Döring 2000). Thirdly, anonymity means that individuals can go online whilst concealing their identity and without having to make face to face contact (Cooper and Griffin-Shelley 2002).

The features of the triple-A engine (Cooper 1997) can also be used to promote sexual health education (Cooper et al 2002) through the use of sex education websites, support groups, bulletin boards and email advice services. Barak and Fisher (2001) even suggest a quin-A engine adding acceptability, i.e. it seems credible and legitimate to access information via the internet (King 1999) and aloneness and therefore privacy when searching for sensitive information to Cooper's (1997) concept to underline the suitability of the internet for sex education. The following section will give a review of the research literature on online sexual health promotion.

2.2.2.1 General review of the literature on online sex education and sexual health websites

Smith et al (2000) were one of the first research teams to review sex education materials published on the internet. Although their article was published in 2000, their data collection phase was completed in 1997 and their results are therefore fairly dated. The authors identified 41 sex education websites amongst nearly 6 million pages, which were flagged up through a key word search. 63% of the websites identified through the key word search were pornographic. The 41 eligible websites were checked for statements on sexual biology, decision making about sexual activity, sexual violence, homosexuality, condoms and a description of their proper use, other contraceptives, STDs, abortion and other

resources. Websites were awarded one point each if they mentioned the above topics without the quality of the materials being assessed in detail. Their research showed that it was easier to find specific information on the internet rather than more general information. Many of their sites received only a few points and therefore showed big omissions in terms of content and only one site had a 'sex-positive' attitude. The authors suggested that clear, colloquial and blunt language might be best for sex education websites.

An influential study was conducted by Bay-Cheng (2001) who investigated 52 sexuality education websites for teenagers looking for underlying themes in their discourses. Her work was based on a paper by Fine (1988) who had found that offline sex education programmes for adolescents normally used three main discourses. Firstly, one on sexuality as violence portraying sexuality as inherently coercive and violent, secondly one on sexuality as victimization suggesting that sexuality involved a high possibility of victimization and negative consequences especially for young women, and thirdly a discourse on sexuality as morality which was infusing sexuality with moral ideas such as will power, self-control and purity. Fine (1988) also found that what tended to be absent was a discourse on sexuality as desire.

Bay-Cheng classified the studied websites into those whose content was prescribed by an abstinence only approach (24) and those with a more comprehensive approach (28). She found that over 95% of the abstinence only sites and almost 80% of the comprehensive sites were coded for evidence of a discourse on sexuality as victimization. Young women were the primary target for messages of risk and fear. She found that significantly more comprehensive sites were affirming of sexual desire and presented sex-positive information. Additionally, Bay-Cheng (2001) looked into how homosexuality was treated on the websites. She found that those sites, which included information on non-heterosexual issues, often did so in a specific section thereby suggesting that these issues were irrelevant to the majority. This strategy has been called the 'homosexual disclaimer' (Whitlock and DiLapi 1983) indicating a clear heterosexual bias. Bay-Cheng (2001) concluded that online sex education programmes for teenagers rely heavily on gendered, heterosexual stereotypes and a negative, fear-based discourse on sexuality.

Another perspective on online sex education is offered by Barak and Fisher (2001) who discuss their vision for online sex education which they suggest needs to be grounded in

theoretical models for behaviour change such as the information-motivation-behavioural skills model (Fisher and Fisher 1992). The authors critique current sex education stating that motivational factors are often not attended to. However, their suggestion that the needs of learners need to be assessed to offer tailored interventions suggests that they come to sex education from the perspective of a health professional who can and needs to assess what service users need to know rather than allowing the learners to define their own needs for information.

A further general survey of internet resources on sexual health was conducted by Millner and Kiser (2002) for family counsellors so that the latter could suggest selected sites to their clients. They reviewed sites for adolescents, young adults, adults and older adults, but did not conduct a systematic search for sites. Only one site seems to suggest a pro-sexuality approach and most of them focus on a medical perspective to sexual health.

The usefulness of the internet for sexual health promotion has been discussed with reference to specific populations such as women (Leiblum and Döring 2002), older adults (Adams et al 2003) and men who have sex with men (Ross and Kauth 2002, Bolding et al 2004). The authors generally agree that the internet offers new possibilities for sexual development and education to marginalised groups.

Ross and Kauth (2002) for example underline that the internet can be very supportive to men who have sex with men in the formation of their sexual identity as it allows men to access support groups and resources even if they are geographically isolated. The possibility of telling oneself and others about one's sexual identity in a positive way can be extremely important to men who have sex with men (Frankham 2001). Additionally, a survey of men who have sex with men on website usage and attitudes towards sexual health promotion on the internet found that a majority of participants had a favourable attitude towards it (Bolding et al 2004). In a recent paper Curioso et al (2007) described internet access in Peru where internet cafés, some of them with confidential booths, are wide spread. The authors suggest that this makes the internet an ideal medium for men who have sex with men to make contact and even to meet in the booth of an internet café. The authors therefore argue that a web-based prevention programme for STDs and HIV could be a very good approach to the problem in Peru.

Adams et al (2003) reviewed internet resources for older adults challenging the stereotype of older adults as asexual in an intelligent and humorous way. The authors suggest that when older adults give up their sexuality it is often due to social and psychological factors rather than due to biology or physiology. Older adults use the internet in the same way as other groups do, namely to seek companionship and romance, for sex education and to access erotica. The authors conclude that older adults greatly benefit from the triple-A engine meaning that older adults can access explicit materials easily, it is affordable even on a restricted budget and anonymity provides protection in a society, which imposes asexuality on older adults.

Finally, Weerakoon et al (2008) published an evaluation of an online sexuality education module for health professionals. The authors suggest that students of different health profession fields such as physiotherapy or radiography are often not taught how to deal with sexual issues arising in their work with patients and that they are often very uncomfortable when having to deal with such issues. Weerakoon et al's (2008) evaluation showed that their web-based course significantly increased reported comfort levels of students.

To summarise, Smith et al (2000) found clear omissions of content in the 41 sex education websites they studied. Only one site had a 'sex-positive' attitude whilst most medicalised sexuality. Smith et al (2000) suggest that clear, colloquial and blunt language should be used for sex education websites. Bay-Cheng's (2001) study investigated common discourses in 52 sex education websites for teenagers and found a predominance of gendered, heterosexual stereotypes and negative, fear-based discourses on sexuality. Barak and Fisher (2001) argue for online sex education, which is based on theoretical models for behaviour change. Online sexual health education has been discussed with reference to different groups such as women (Leiblum and Döring 2002), older adults (Adams et al 2003) and men who have sex with men (Ross and Kauth 2003) as well as a specific geographical location (Curioso et al 2007). All authors concur that the internet offers huge possibilities in the area of sexual health education and prevention. This assumption is further supported by the idea of the triple-A (Cooper 1997) or even a quin-A engine (Barak and Fisher 2001) and the ubiquity of sexual material on the internet.

2.2.2.2 Evaluations of individual sex education websites for adults

An early evaluation of a sex education website was completed by Graugaard and Winther (1998) of the Danish website Lyst⁵ in 1998. The authors recommended the internet as a medium for sex education as it is anonymous and offers a high degree of user control. Lyst is written in Danish language and offers sex education materials for adults and young people as well as an email advice service. The authors suggested that the possible advantages of internet counselling are that there is a large and growing target group, correspondence is public and anonymous, contact is commenced and terminated by the enquirer, a quick response is possible and there is the possibility for unlimited expansion and updating of materials.

In the first year lyst.dk received 2-3000 hits per month, however, it is unclear again whether this figure pertains to individual users or to how often the homepage was recalled. The authors reported that they received 220 serious emails from adults over the first 10 months and 2400 responses to their youth column. In analysing their email queries the authors stated '*Teenagers often pose short and concise knowledge questions, while adults present much more intricate problems referring to cohabitation and genuine sexological dysfunction*' (Graugaard and Winther 1998: 202). The age distribution of their advice seekers was 18% under 20 years of age, 25% between 20-29 years, 37% between 30-39%, 11% over 40 and 9% unknown. As internet access has spread over the last 10 years the age distribution of advice seekers today may be more inclusive of older adults as acceptance of the technology has grown.

A major study into one specific sex education website was carried out by Barak and Fisher (2003) on the Canadian website www.sexualityandu.ca in 2001-02. Sexualityandu was designed by a team of experts based on a model for behaviour change called information-motivation-behavioural skills (Fisher and Fisher 1992). The website went live on the 1st of November 2001 and data collection closed on the 20th of April 2002. It aimed at 5 different target groups, namely adolescents, adults, parents, teachers and health care professionals, and is available in English and French. Barak and Fisher (2003) affirmed that the web provides control to information seekers as to how and when to access information,

⁵ URL: <http://www.lyst.dk>

especially if users have private internet access at home. They also stated that the internet offers a medium which encourages self-directed advice seeking which is individually relevant, not embarrassing and cost effective to deliver (Barak and Fisher 2003).

Barak and Fisher (2003) report that an average of 1100 to 900 unique visitors accessed the site per day in the first 5 months and the authors conclude that the site has been a great success. Nearly 82% of service users of the English language version were from North America and only 1.37% from Western Europe and 1.09% from Asia. The most accessed pages contained information on sexual relations, male and female anatomy and masturbation. In their article (Barak and Fisher 2003) the authors describe their research as work in progress, however, they do not mention any further details on 'work in progress' on the site itself such as ongoing maintenance. Also, the paper does not mention an information needs assessment, ongoing work with search engines or a pro-sexuality message. No email advice service is included and the website itself does not offer any email contact even to the web developers (autumn 2008). Therefore, there does not seem to have been an evolutionary, ongoing development process for this site or the option for direct contact with service users. Furthermore, the research only covered a brief period of data collection. The site itself was still available on the web when the present author checked in 2008.

Pendergrass et al (2001) investigated a website for disabled women aimed at improving their knowledge about reproductive health. The researchers used a pre- and post-intervention test to assess learning. 26 women took part in the study who were recruited online and offline. However, the sample used in this study is fairly uniform in that all women had the same type of disability and were mostly white, highly educated and affluent. The information available on the site seemed to describe only the medical aspects of sexual and reproductive health and does not account for the potential psychological needs of women. It also did not include a pro-sexuality message and as such may perpetuate the message that disabled women should be asexual. The authors concluded that the website was effective in increasing the participant's knowledge about reproductive health.

In addition to the described single website evaluations discussed above, a 2006 study is available which reviewed a number of interactive safer sex websites (Noar et al 2006). The

authors reviewed 21 websites about STDs and safer sex principles with respect to theory used, targeting and interactivity. When searching for websites they only looked into the top 20 search results for each search term in each search engine, thereby mirroring the search behaviour of internet users. Of the 21 websites 5 or 24% were governmental sites, 7 or 33% were non-profit and 9 or 43% were private sites. Many of the websites targeted teenagers, 86%, and/or young adults, 48%, and only 5% targeted adults or showed a general focus, 5%. Although the sample size for this study is extremely small, it is noteworthy that few sex education websites for safer sex and STDs targeted adults.

A few research studies have been conducted into specific aspects of online sexual health education for adults. Weiss and Moore (2003) assessed the quality of information available on the internet on the intrauterine device (IUD). Their data was collected in September 2002. They found 28 sites with information on contraception and 115 websites with information on the IUD. The authors found that just over one third of contraception websites were up-to-date and accurate and two thirds gave accurate standard information. When looking at the IUD specifically they found that less than half of all sites showed up-to-date or accurate standard product information and 20% displayed false information. The authors state that false information resulted in websites portraying the IUD as more risky to women as research results suggested. The present author wonders whether the term 'false' information needs to be treated with caution, as it is easily conceivable that some women's groups would not agree with the view that the IUD is less risky to women as current research, which is probably funded by the industry, suggested.

Touchet et al (2007) evaluated the quality of websites offering information on female hypoactive sexual desire disorder. They identified 101 websites through a search in Google on this topic and found that 75% of the websites reviewed scored below 3.27 when ranked from 1 = poor to 5 = excellent. Both studies conducted by Weiss and Moore (2003) and by Touchet et al (2007) reviewed websites from the position of the medical model without user involvement and found the information described as wanting. However, they do not critique their own point of view, for example, the fact that a diagnosis of female hypoactive desire disorder can be challenged from a feminist perspective (Pertot 2005) and that even within the mainstream professional community no consensus exists as to the nature and cure of such a condition (Schnarch 2000).

Lau et al (2008) evaluate an online HIV behavioural intervention for men who have sex with men in Hong Kong. The intervention used a website which was specifically created for the project and included periodic HIV information sent out to participants, monitoring of risk behaviours and interactive feedback, online peer counselling and the provision of a telephone hotline. However, the evaluation showed that the intervention did not make a statistically significant impact. Lau et al (2008) discuss the potential reasons for this lack of impact and suggest as possible reasons that participants may not have read emails, only a selective group with high levels of education participated, the project did not manage to establish rapport with service users and HIV wasn't the most interesting topic to the participants. The project seems to have been developed solely from the perspective of health professionals without user involvement or an information needs assessment.

In general, research suggests that online sex education for adults is an efficient and acceptable way to offer information on sexual health and relationship issues (Graugaard and Winther 1998, Barak and Fisher 2001, Barak and Fisher 2003, Pendergrass et al 2003, Noar et al 2006). However, the area is under-researched with only two in-depth studies by Graugaard and Winther (1998) and Barak and Fisher (2003). In the latter study the most accessed pages were on sexual relationships, male and female anatomy and masturbation (Barak and Fisher 2003). However, the reviewed papers on sex education projects for adults do not report a pro-sexuality stance (Graugaard and Winther 1998, Barak and Fisher 2003, Noar et al 2006). Graugaard and Winther (1998) found that email queries sent by teenagers to the Danish sex education website www.lyst.dk were mostly short and concise knowledge questions whereas queries sent by adults presented intricate psychosexual and relationship problems.

2.2.2.3 Evaluation of sex education websites for young people

Sex education via the internet for teenagers and young adults has received some attention from researchers (Lunin et al 1997, Keller et al 2004, Gilbert et al 2005, Goold et al 2006, Hong et al 2007). Gerressu and French (2005) reviewed the issues involved in promoting sexual health awareness online. The authors suggest four areas which need attention when planning a project for young people online, namely access, content and how to engage young people, site quality and level of maintenance required.

Some research has been done internationally into sex education via the internet. Lunin et al (1997) ran a news group for sex education in Russia. They presented some of their more detailed information in English to make sure younger children who would normally not be able to read and understand English would not have access to it. They used two moderators, a male and a female, for managing the news group. Goold et al (2006) completed an in-depth information needs assessment for young people in the North of England via the use of focus groups to help with the development of an interactive multimedia learning environment. They found that young people knew about STDs, but less so about the services they needed to attend if they had a problem. Hong et al (2007) conducted a survey of 1,845 Chinese College students to assess their internet use, attitudes to sex and sexual status. They suggest that the internet could be used to provide sex education and HIV prevention.

Keller et al (2004) conducted a general review of the content of sex education websites for young people focusing in particular on the evaluation of communication skills covering skills such as safer sex negotiation, basic communication, and decision-making skills. They reviewed 36 websites and found that overall they did not discuss personal skills enough. On the other hand, less than 1% of the sites they found in their original search were pornographic in comparison to Smith et al (2000), who found that the majority of sites located through the search engines at the time were pornographic sites. The researchers conclude that the websites, who used teenagers to give input during the whole project, did best in their evaluation (Keller et al 2004).

An evaluation of one specific website for sex education was conducted by Gilbert et al (2005) on the American website www.iwannaknow.org. The research team conducted three different analyses, firstly, of the site content and its quality, secondly, an observational usability test and thirdly, surveys of online visitors. The content analysis entailed two experts checking the content of the website and comparing it with standardised guidelines for sex education for young people, as well as analysing 500 email and chat room transcripts. This analysis found gaps in the content provision, which were then addressed. The usability test checked the satisfaction of teenage users of the site. The survey measured demographic data, behavioural risk factors and features of information seeking behaviour. The results showed that the site received 53,564 unique visitors in 3 months at the beginning of 2002 (on average 600 unique visitors per day). Most surprisingly, only 42.2%

of participants in the survey were in the target age group for the site, namely 13-17 year olds. 85% accessed the internet from home and 37% had used a search engine to locate the site. The three most looked for information topics were, ranked in order of frequency, sexual expression including information on masturbation and different forms of sex, teen sexuality and virginity. The authors underline the importance of information about sexual expression and sexual identity to teenagers. They go on to state that *'few, if any "clean" (non-pornographic) sites want to tackle these sensitive topics, yet teens are obviously in need of age appropriate descriptions and discussions about expressions of sexuality and the responsibilities and consequences that go along with these behaviours'* (Gilbert et al 2005: 242). The authors also suggest that there may be a dose-response relationship for the impact of a website, therefore, the more often somebody might visit a site the more impact in terms of behaviour change a website might have.

In summary, sex education websites for teenagers and young people have been researched only to a small extent. Currently, the research supports online sex education for teenagers and young people (Keller et al 2004, Gilbert et al 2005, Gerressu and French 2005, Lunin et al 1997, Hong et al 2007). A Russian sex education newsgroup for young people pioneered the use of two moderators, one male one female, for online advice (Lunin et al 1997). 57.8% of participants in a survey of a sex education website for teenagers were not in the target group of 13-17 year olds (Gilbert et al 2005) suggesting that there may be a lack of good quality sex education provision for adults. Furthermore, teenagers were found to be most interested in information on sexual expression and masturbation (Gilbert et al 2005) which are often not covered in sex education websites. Additionally, a dose-response relationship may exist for the impact of a sex education website which further underlines the importance of engaging visitors on topics they are interested in as a way to also influence unhelpful behaviours and beliefs.

2.2.2.4 Research into psychosexual therapy and advice via email

Few studies have been completed on the use of email for psychosexual psychotherapy and sex education advice (Graugaard and Winther 1998, Flowers-Coulson et al 2000, Hall 2004, Leusink and Aarts 2006, Van Diest et al 2007, Harvey et al 2007). Flowers-Coulson et al (2000) reviewed the emails sent to an 'ask the expert' feature of a teenage sex education website called www.cfoc.org over a two month period. The queries were

collected during late 1997. More than 200 questions were received and answered with the vast majority being on conception and fertility, which this website specialises on. Additional questions were received on psychosocial issues, pregnancy and reproductive health as well as requests for research. The authors report that the questions were sent by people of varying ages, levels of knowledge and geographical location at a rate of 3 to 10 per day. The authors stated that *'the disadvantage to answering questions without face to face contact or an opportunity for dialogue is that it is difficult to customize the answer to cover every possible behavior or piece of knowledge that pertains to the issue at hand'* (Flowers-Coulson et al 2000: 180). They suggest that the best strategy to provide information via the internet is to provide as much information as possible to educate and refer the enquirer to other appropriate sources.

In their analysis the authors comment on a striking lack of knowledge about basic reproductive health, high risk behaviours for pregnancies and STDs and a lack of trust in medical staff. Flowers-Coulson et al (2000) also comment on the fact that queries would have come from individuals who had internet access in 1997 and could have been expected to have above average access to health care and education which seems to make the apparent lack of knowledge displayed in the email queries even more disconcerting to the researchers. However, to the present author some of the queries Flowers-Coulson et al (2000) reviewed could be explained as enquirers seeking reassurance rather than knowledge.

The only piece of practitioner research which I have found for this literature review has been completed by Hall (2004), namely a pilot study into psychosexual psychotherapy via email. Unfortunately, she gives no information about how her online clients found her on the internet or the time period during which her research project ran. Hall (2004) states that she received 12 enquiries in total some of them looking for help for a partner. 7 clients were sent in-depth assessment forms and 6 returned the required information and began task-based psychosexual treatment. Overall, Hall concludes that the internet as a medium allowed for good psychotherapeutic work resulting in 2 clients stating that their problem had significantly improved, 3 stated it had much improved, 2 said it had slightly improved and 1 person had stayed the same. She concludes that the extra anonymity afforded by the internet seemed to help clients to disclose important information early on in treatment.

Two further studies on psychosexual psychotherapy via email have been conducted by researchers in the Netherlands (Leusink and Aarts 2006, Van Diest et al 2007). Leusink and Aarts (2006) investigated an online programme for men with erectile dysfunction. In the Netherlands it is permitted for medical doctors to conduct online consultations and prescribe medication to men with erectile dysfunction without a face to face consultation. The online doctor had the option of a medical prescription, to recommend psychosexual psychotherapy or to suggest basic exercises according to the guidelines developed by Masters and Johnson (1970). The study involved 219 men who used the online consultation, 98 of which were willing to complete a questionnaire. The majority of respondents, namely 81%, stated that the consultation had helped them, however, the authors comment that this could simply be due to the effectiveness of available pharmacological solutions such as Viagra. The authors also comment on the fact that over half of the men had suffered from erectile dysfunction for more than 1 year and had often not told their physician about it, but had rather turned to the website for help instead.

The second study was conducted by Van Diest et al (2007) into online psychosexual psychotherapy with 39 heterosexual men suffering from simple erectile dysfunction. The treatment on offer was sex therapy according to the principles of Masters and Johnson (1970) for a duration of 3 months through email. The authors evaluated the treatment through pre- and post-intervention tests. From the 39 men who applied for treatment 8 did not start the treatment and 10 did not complete the post-intervention test. The number of emails during treatment varied from 1 to 21. The authors comment that nearly all of the participants found it hard at the start to write about their sex lives and experiences. However, some participants stated that writing was easier for them than talking about the issues. The authors conclude that psychosexual psychotherapy can yield good results if offered via the internet. The positive aspects of online psychosexual psychotherapy via email that they describe were easy access, anonymity, self-pacing, own time management and lack of travel and waiting time.

Finally, Harvey et al (2007) analysed emails sent to a UK website on health for young people using corpus linguistic as a methodology. Their study suggests that teenagers were disproportionately concerned with sexual health and sexual identity issues, but did not contribute any further information to this study.

Research into online psychosexual psychotherapy and sex education advice via email has been particularly sparse despite the fact that email as a medium could be extremely suited to this work due to it being anonymous, self-pacing, accessible (Van Diest et al 2007) and giving full control over the exchange to the enquirer (Graugaard and Winther 1998). The few pilot studies into this area suggest that psychosexual psychotherapy via email can be effective for clients (Hall 2004, Leusink and Aarts 2006, Van Diest et al 2007).

2.2.3 Summary of the specific literature review

Following is a summary of the facts and conclusions drawn from the specific literature review as they seem relevant to the present study.

2.2.3.1 Summary of the findings on online health promotion

Firstly, the literature suggests that people use the internet to access health information (Brodie et al 2000, Lorence et al 2006). However, a digital divide still exists even in the Western world (Brodie et al 2000) and disadvantaged groups experience more barriers to accessing the internet (Skinner et al 2003). Quality of access (Skinner et al 2003) needs to be considered for an online sexual health service in that individuals may only be willing to access such a service from the privacy of their own homes. Lorence and Greenberg (2006) have developed a model of the online health information search process, which can inform service development. The spiral technology action research model (Skinner et al 2006) aims at integrating technology design and information needs for a target population for online health promotion projects. Although their approach necessitates a sizable team and matching budget, some of their ideas may be helpful in the development of a small scale, practitioner-led project such as Sex-and-Relationships.

Secondly, some writers have discussed issues pertaining to the content of online health promotion projects such as Williams et al (2002a) and Benigeri and Pluye (2003). Specific criteria have been proposed for online health promotion websites such as information quality, accuracy and authority of content, usability issues, site facilities and relevance of materials (Williams et al 2002a). Further guidelines come from the Health On The Net

Foundation (2007). All of these criteria are helpful for the development of Sex-and-Relationships even if the project may not want to comply with them.

Additionally, individually tailored feedback has been proven to be the most effective tool for health behaviour change (Evers et al 2003, Duffet-Leger and Lumsden 2008) which supports the integration of an online email advice or counselling service into Sex-and-Relationships. Furthermore, the latter would mean an ongoing engagement of the practitioner and researcher with Sex-and-Relationships following Benigeri and Pluye's (2003) call for ongoing involvement of health professionals with health information websites.

Thirdly, quantitative evaluations of single online health promotion projects have shown that web-based interventions work (Watland et al 2004). However, individual studies often report only partial success (Sciamanna et al 2002, Williams et al 2002b, Lenert et al 2003, Anhoj and Holm Jensen 2004, An et al 2008) pointing to the possibility of future improvements in the design of online resources. Moreover, qualitative and quantitative evaluations of websites often exclude elements of the online environment which limits the transferability of their findings to the real online context in which health promotion websites need to function. Additionally, quantitative studies rarely mention details of the design process and generally speaking omit to conduct user information needs assessments. They are normally planned as static, one-off development and research designs which do not take into account ongoing maintenance for health promotion websites.

Evaluations of health promotion websites following naturalistic research designs are to some extent able to fill the gaps quantitative studies leave. Generally speaking, the discussed health promotion websites were well used (Wilson et al 2001, Young et al 2002, Pinnock and Jones 2003, Papadaki and Scott 2005 and 2006) although the origin of quoted figures for visitors is often not explained. Pinnock and Jones (2003) stress the importance of an information needs assessment prior to design and writing of a health information website. Moreover, Wilson et al (2001) and Linke et al (2004) underline the importance of using the intrinsic features of the internet to make online health information more accessible.

Few studies have discussed the use of emails for health promotion projects. A study by Hahn (1998) evaluated the email support service of an IT support department of a university and found that service users indicated that their ideal exchange would be a concise, one-off response whereas staff considered longer dialogues as normal. Hahn (1998) suggests that providers of email support services need to be aware that service users may only want the briefest possible exchange. Although users of a health project may have different needs than users of an IT support service her findings are still intriguing.

2.2.3.2 Summary of the important findings from the review of the literature on online sexual health promotion

Research into online sex education projects continues to be sparse despite the proposed suitability of the internet to this task (Barak and Fisher 2001 and 2003). Smith et al (2000) reviewed 41 sex education websites in 1997 and found clear omissions in the provision of content. Only one site had a 'sex-positive' attitude. Other authors who reviewed online sex education with respect to specific populations underline the suitability of the medium (Leiblum and Döring 2002, Adams et al 2003, Ross and Kauth 2003).

Bay-Cheng's (2001) study shows the tendency of sex education websites for teenagers to use gendered, heterosexual stereotypes and negative, fear-based discourses on sexuality. Attention to the overt and covert messages given about sexuality and relationships through Sex-and-Relationships will be important to avoid negative discourses on sexuality (Fine 1988) and show inclusivity and acceptance of non-heterosexual life styles (Whitlock and DiLapi 1983).

Some evaluations of individual sex education websites have been conducted since 1998. The earliest of these studies evaluated a Danish sex education website called Lyst (Graugaard and Winther 1998). The authors recommend the internet as a medium for sex education as it is anonymous and offers a high degree of user control. Graugaard and Winther (1998) state that Lyst was well received. The service answered 220 email queries from adults in the first ten months and received 2400 responses to its youth column.

Barak and Fisher (2001) suggest that online sex education needs to be informed by behaviour change theories to optimise its impact. Barak and Fisher (2003) propose a quin-A

engine driving sex education online meaning that not only is the internet affordable, available and anonymous (Cooper 1997), it also offers an acceptable and private way to accessing sexual health information making it the perfect medium for this task. In their evaluation of the Canadian site *sexualityandu*, Barak and Fisher (2003) state that the site received 1100 to 900 unique visitors per day in the 5 months of the study. The most accessed pages were on sexual relations, male and female anatomy and masturbation. However, the study did not assess the information needs of users nor did it address ongoing site maintenance or include an email advice service. Noar et al (2006) in their review of 21 websites on STDs and safer sex principles found that only 10% of sites targeted adults or showed a general focus. In general, research supports the internet as a means of providing sexual health education and prevention for adults. The reviewed studies of individual projects do not explicitly report a pro-sexuality stance (Graugaard and Winther 1998, Barak and Fisher 2003).

Sex education websites for teenagers and young people have also only rarely been researched. Gilbert et al (2005) found that 57.8% of participants in a survey for a sex education website for teenagers were not in the intended target group of 13-17 year olds suggesting that there may be a lack of good quality sexual health information for adults.

The same study (Gilbert et al 2005) found that teenagers were mostly interested in information on sexual expression and masturbation, but that few sites were willing to address these issues. Gilbert et al (2005) also suggested that a dose-response relationship may exist between website usage and behaviour change emphasising the importance of engaging service users with what they are interested in so as to be able to influence unhelpful behaviours over time.

Research into online psychosexual psychotherapy and sex education via email shows that this medium is suitable for the task and that it can be effective for clients (Hall 2004, Leusink and Aarts 2006, Van Diest et al 2007). Hall (2004) conducted the only piece of practitioner research in this area concluding that increased anonymity seems to help clients disclose important information early on in treatment. Further benefits of psychosexual therapy via email are its accessibility and potential for self pacing (Van Diest et al 2007) and the fact that the medium gives full control over the exchange to the service users (Graugaard and Winther 1998).

3.0 Rationale and refinement of the research question

3.1 Rationale for this research study

Clearly, the internet offers huge new opportunities to health promotion and sexual health education in particular. It is therefore even more surprising that few online sexual health and psychosexual advice projects exist for adults despite the obvious demand. Additionally, few research studies have been conducted investigating the existing services and how they could be improved.

Furthermore, all of the critiqued research studies used a static research methodology only providing a brief snapshot in time of how a service was performing. Given the ever changing and evolutionary nature of the internet, this type of research seems unable to capture changes to service provision over time or how user interaction may develop a project. Action research is well placed to capture ongoing developments and encourage practical improvements over longer periods of time maximising a project's embeddedness in its online environment.

Additionally, few studies include a user information needs assessment or ongoing input from practitioners and service users. This is highlighted by the fact that the present author could find only one piece of practitioner-led research (Hall 2004) for the literature review of this study. It seems important to develop projects which are not only more flexible, but which have active and ongoing input from service users and health professionals. Moreover, a piece of practitioner-led research may be able to bridge the theory-practice gap and ensure a pragmatic outlook on knowledge generation in this field.

Studies, which comment on service development such as Pinnock and Jones (2003) and Skinner et al (2006) do so from the perspective of being able to utilise a whole team of contributors and are able to command a corresponding budget. The findings of these research projects may not be transferable to small scale, less well funded projects. However, considering the potential for low-cost services via the internet small scale projects by practitioners or NGOs could really come into their own via the net. Therefore, it seems important to the present author to investigate if and how a small scale health promotion project on a limited budget could be successful.

Moreover, the reviewed studies say very little about how online health promotion sites were developed. Authors may give general recommendation in their conclusions (Williams et al 2002b), however, these suggestions were often not implemented or researched further.

Finally, few of the naturalistic studies comment in-depth about what they know about who uses their service above and beyond giving average visitor numbers. Ultimately, a service is only as helpful as service users experience it to be. Therefore, gaining more knowledge about who uses a service and what they gain from doing so is essential for improving professional practice on an ongoing basis.

Overall, there appears to be a large gap in our knowledge about how to design and implement small scale online health promotion projects. Additionally, learning more about who might use such a service and what they are looking for when engaging with it could benefit other online health promotion projects.

With respect to this study, the main aim is first and foremost to learn about how to develop Sex-and-Relationships into a high-quality online health education project. Before restating and clarifying the research questions for this study I would like to reiterate and clarify the aims for Sex-and-Relationships, which will ultimately guide the action research process.

3.2 Aims of the project Sex-and-Relationships

The aims for the development of Sex-and-Relationships can be broken down as follows:

- Provide high quality and easily accessible information on sexuality, sexual difficulties and relationship issues for adults on the internet in the form of a comprehensive website.
- Take into consideration the different perspectives of men, women and transgender as well as different relationship constellations such as hetero or homosexual and promote respect and equality.
- Be able to cover expenses and possibly even professional time spent working on the website. Earn the necessary revenue in an ethical way.

- Support vitality and acceptance of human sexuality in the way the website positions itself.
- Be culturally sensitive and accessible to people globally.
- Offer an integrated online counselling or advice facility which looks at psychosexual difficulties in an integrated way.
- Promote an ethical approach to sexuality on the internet in general.
- Offer opportunities for ongoing dialogue between professionals and service users.

3.3 Clarification of the research questions for the present study

Through the above stated objectives for the project and the review of the literature the following clarification of the research questions have been made for this study:

Research question 1: Identify how to develop and run Sex-and-Relationships as a high quality, but low cost online health promotion website on sexual health.

- Sub-question 1a) Critically analyse the processes and strategies used to develop Sex-and-Relationships.
- Sub-question 1b) Appraise the strategies with which obstacles were overcome during the development process.

Research question 2: Critically analyse the available information about service users who access Sex-and-Relationships.

- Sub-question 2a) Appraise what we know about service users.
- Sub-question 2b) Appraise the information and support needs of service users.

4.0 Research Methodology

'The production of science is not an operation (or indeed an autopsy); it is a relationship' (Gorelick 1991: 460)

The following section delineates a very brief outline of the recent debates around the philosophical assumptions about reality and knowledge in the social sciences to provide a historical backdrop for a discussion of the chosen epistemological frame of reference or paradigm (Kuhn 1962) of this study, namely pragmatism. The pragmatist approach (Morgan 2007) orientates itself towards concrete consequences and ethical principles based on humanism rather than looking toward a priori metaphysical principles to determine what is 'truth' and therefore valid knowledge.

I will consider the contribution of systemic thinking (Flood 2001) and the consequences of the post-modern questioning of a single, coherent narrative on this study. Of further importance to this research are ideas about an epistemology of practice and what kinds of knowledge can be generated and are valid in practice-based research (Park 2001, Eikeland 2001). Subsequently, I will explore methodological issues of online research before discussing my chosen research methodology, action research, and the implications of being a practitioner-researcher. I will conclude with clarifying data collection and data analysis, as well as ethical considerations and the use of reflexivity in this research project. Finally, I would like to position the researcher firmly within the research process.

4.1 Research paradigms

Any process of research, which hopes to uncover truth(s) about the world, always rests on philosophical assumptions about the nature of the world and the nature of what we think we can know about the world. Within mainstream Western scientific thinking from the enlightenment onwards until the 20th Century the world has been thought to exist separately from the observer. This philosophical point of view called realism has promoted the rise of empiricism a school of thought, which stated that the best way of finding out about the world was through pure sensory data (Crotty 1998, Creswell 2003).

These philosophical ideas have led to a frame of reference we call positivism, which is often equated with quantitative science. Positivism postulates that the world exists independently from the observer and that we can learn about it through objective observation. To allow for unadulterated data the observer must be as disconnected and neutral as possible to the phenomenon studied (Guba and Lincoln 1994). Research based on positivism concerns itself with uncovering a singular truth, which exists beyond human reference points somewhere 'out there' waiting to be discovered. This position was later slightly adapted to acknowledge the fact that through our human instruments and sensory apparatus we can never truly discover the unadulterated truth 'out there'. At best we can refute claims, which are not true rather than prove once and for all what the truth is.

The arrival of post-modern thinking in the 20th Century ended the quest for certainty amongst some Western scholars. At the core of post-modern thinking is the realisation that the observer is always linked to what is being observed, an ontological point of view called constructivism. Any perspective taken to view a phenomenon cannot claim to be the only true perspective. 'Truth' became something constructed by consensus through the use of language and dialogue by a community of knowers (Guba and Lincoln 1994). Certainty gave way to the possibility for multiple voices which all had a right to be heard. Post-modernism challenged the supremacy of any one voice or grand story over all others and was therefore inherently political. Science became understood to be a historical discipline with its discourse being relative to time, space and culture rather than mirroring a truth 'out there'.

Kuhn (1962) conceptualised this epistemological shift by suggesting the idea of scientific paradigms. Kuhn gave a few different definitions of 'paradigm' ranging from a narrow definition of paradigm as a system of beliefs shared by a community of researchers in a specific speciality to paradigm as encompassing a whole set of epistemological assumptions about the world (Morgan 2007). Kuhn (1962) suggested that scientific work would continue within the current paradigm's frame of reference and that any evidence or anomalies which did not fit the current paradigm would be neglected or disputed by researchers. At some point however, enough anomalies would have accrued to necessitate a complete change of the current paradigm. Such a scientific revolution would sweep away long held assumptions and a new paradigm would emerge which constituted a more

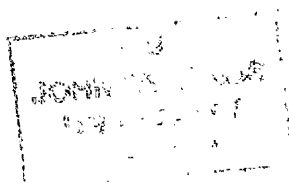
comprehensive frame of reference that could accommodate more of the accumulated evidence, at least for the time being.

Kuhn (1962) suggested that social science was indeed experiencing such a paradigm shift from a modernist frame of reference to a post-modern one at the time he was writing. The new paradigm, which Morgan (2007) calls the metaphysical paradigm, embraced post-modernist thinking and reinstated the researcher within the research as a factor which could not be separated from the researched and which was better accounted for rather than hidden. The new qualitative research, based on the metaphysical paradigm, also started to acknowledge issues of power and how research and its findings are always embedded in a matrix of hierarchical influences, oppressive practices and inequalities given the realities that exist in our world today. Research could no longer claim to be value free when it supported the dominant discourses of power, but needed to take responsibility for, challenge and disrupt structures, which perpetuated inequality (Lincoln and Guba 2000).

The new metaphysical paradigm was taken up passionately by some and equally passionately opposed by others. Both camps understood their differences to be irreconcilable. Guba and Lincoln (1994) proposed that the two paradigms were incommensurable and stated that '*no inquirer, we maintain, ought to go about the business of inquiry without being clear about just what paradigm informs and guides his or her approach.*' (Guba and Lincoln 1994: 116). However, some writers such as Howe (1988) and Kaplan (1964) have argued early on against the idea that paradigms were incompatible and suggested a 'compatibility theory' (Howe 1988). Coming from a practical perspective Howe stated that researchers in their everyday practices mixed methods on a regular basis and that epistemological considerations needed to come in line with what was actually happening (Howe 1988). Researchers needed to go with 'what works' rather than barricade themselves into a purist epistemological position. This was also a point stated earlier by Kaplan (1964), who thought that research methods or 'logic in use' and epistemological paradigms or 'reconstructed logic' require an ongoing process of mutual adjustment. Therefore, Kaplan (1964) and Howe (1988) amongst others rejected a view of ontology influencing epistemology, which in turn influences research methodology in a top down, uni-directional way as suggested by Guba and Lincoln (1994), but saw research methodology and epistemology interacting and influencing each other.

Morgan (2007) continues this discussion by suggesting that we are currently experiencing another paradigm shift towards a pragmatic approach. Pragmatism still acknowledges the importance of metaphysics, but focuses on experience in the world rather than whether the world exists outside of us or not (Morgan 2007). Instead of orientating itself towards a priori antecedents, pragmatism concerns itself with the possible consequences of beliefs and actions as a way of determining what is 'truth'. It rejects the classic dualism of realism and constructivism and suggests a 'soft' relativism (Johnson and Onwuegbuzie 2004) that acknowledges the usefulness of both positions. Pragmatism is intrinsically linked to humanism and ethical considerations in research. Consequently, it concerns itself with investigating how to support human flourishing. Additionally, a pragmatic approach emphasises dialogue, shared meaning making and collaborative action.

For Morgan methodology becomes a major concern and is influenced by epistemology and methods. The top down approach of the metaphysical paradigm is replaced by a dynamic interaction of the three elements which all influence each other (see diagram 6). All three areas, epistemology, methodology and methods, need to be adapted to design research, which answers the research questions in the most useful and ethical way. Although it is true for all research that the research question should determine the methodology, pragmatism puts this requirement at the heart of its epistemology not just its use of methods. Therefore, pragmatism as an epistemological approach is especially well suited to supporting research, which looks for practice-based solutions such as action research. *'Pragmatism unites theory and praxis in an integrated knowledge construction process.'* (Levin and Greenwood 2001: 104). Morgan (2007) sums up the differences of the pragmatic approach in the three words abduction, intersubjectivity and transferability compared to a qualitative approach based on the metaphysical paradigm (induction, subjectivity, context) and a quantitative approach based in post-positivism (deduction, objectivity, generality).



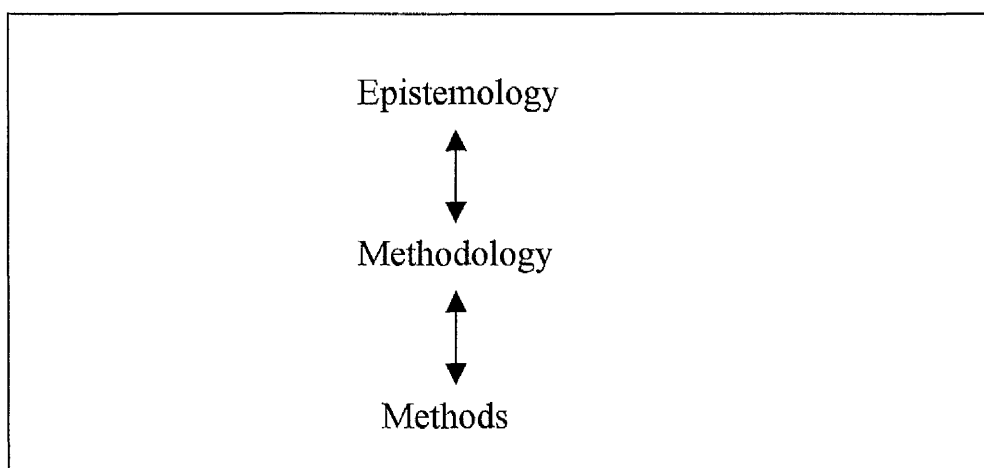


Diagram 6: 'Placing Methodology at the Centre' (Morgan 2007: 69)

Pragmatism and mixed methods research

Wednesday, August 8th, 2007

(...)

'It is not abstract pursuit of knowledge through "inquiry" that is central to a pragmatic approach, but rather the attempt to gain knowledge in the pursuit of the desired ends.' (Morgan 2007:69) For me this means that the questions shouldn't be 'what can we know?' but rather 'what do we need to know?'

(...)

4.2 Towards an application of epistemology in this study

4.2.1 Systemic thinking

Reading Action Research

Saturday, December 30th, 2006

(...)

Systems thinking is the way I organise my mental world. Systems thinking holds as a core assumption that phenomena are systems, patterns or coherent wholes, which are in a dynamic inter-relationship with their environment. This concept of interrelatedness is key for systems thinking, as is the idea of emergence. Emergence is a quality of systems, meaning that beyond the sum of properties of all its constituents, a system will show new properties, which cannot be explained by simple addition of its components. Life is such an emergent quality of a specific chemical system, the cell, just as consciousness is an emergent property of a highly developed brain, and maybe not just the human one. A systems approach will use qualitative and quantitative data to describe, model or understand the whole system a researcher is looking at. (...)

The founder of systems thinking was von Bertalanffy (1950, 1956), a biologist who described how a 'system', which could be a single organism or a whole ecosystem balances

itself around a point of equilibrium whilst energy and matter flow through it. He called the mechanism, which regulates a system, feedback. Negative feedback loops constitute a balancing loop whilst positive feedback results in an amplification of the original input. Von Bertalanffy's ideas were soon taken up by other thinkers, who developed his ideas and integrated them with their own disciplines. This development or 'systems thinking' found its way into action research via the Tavistock Institute (Trist and Bamforth 1951). Later theorists integrated systems thinking with constructivism calling their new perspective systemic thinking (Flood 2001). Whilst systems thinking takes the perspective of studying objective systems in the 'real world' systemic thinking acknowledges the importance of interpretations and meanings within human systems.

As a researcher, who first trained as a biologist before moving on to psychotherapy and research, I am deeply immersed in systemic thinking. Systemic thinking allows me to try and understand the properties of the project to be studied as a dynamic whole. All the different aspects of the project such as writing texts, managing my own process of writing, knowing about web editing procedures and how best to advertise the site on the web so that service users can find the information, are important to arrive at an end product which works well. Different procedures within the project will interact and new qualities may emerge. Action research is well suited to researching systems as it can incorporate quantitative and qualitative data, dialogue and self-reflection as well as data about how a project changes over time due to implemented actions.

Finally, complexity theory (Flood 2001) is a new offshoot of systemic thinking. It suggests that ultimately there will always be vast areas which we do not know and which we may never be able to know. Complexity theory helps me to keep in mind the limitations of this study and my own knowledge. Rather than suggesting a claim to knowledge, which is grandiose, complexity theory normalises the fact that we can ultimately only know part of a phenomenon under study.

Reading Action Research
Saturday, December 30th, 2006

(...)

The core statement of complexity theory is that we are enveloped within a vast system of inter-relationships and emergent properties, which are ultimately beyond our ability to comprehend. Complexity

theory offers us a way to think beyond what can be known and to describe what is beyond our abilities. Complexity theory is a sobering assumption, reminding us how limited our understanding must be given the unlimited number of influencing factors and their potential to interact with each other in any research project. I am certainly very aware of my potential limits of understanding with respect to this project, which brings together something as ancient and primal as human sexuality and relationships and the electronic universe of the internet, the scope for interpretation inherent in communicating solely via a written medium in a language which may or may not be the speakers native language and is certainly not mine, the multitude of cultures people will bring to our dialogue and the rootedness of an individual's understanding of sexuality and relationships within their culture and their personal history as well as the power politics and gender roles inherent in relationships. Yet, I am experiencing real connections with people and service users tell us about their connection and engagement with our project and my communication with them. My understanding of what constitutes a good service, helpful communication or a learning experience to the receiver, which I can provide will always be limited. Complexity theory will need to account for the rest. *'It is through systemic thinking that we know of the unknown. It is with action research that we learn and may act meaningfully within the unknown.'* (Flood 2001: 142)

4.2.2 Epistemological consequences of a post-modern paradigm

Complexity theory with its explicit acknowledgement of the limits of knowledge helps me to locate what I do know within a historical space and time and normalises my well meaning but limited efforts to understand as an individual. An acceptance of my own limited perspective as one of many possible perspectives moves this study into a post-modern frame of reference, which makes this by nature partial 'story' about my research one of many potential ones (Haraway 1988). Post-modern considerations disrupt the production of a seamless and polished research report which does not acknowledge the haphazardness and creativity behind any research study (Lather 1991). Discontinuity, gaps and contradictions can be seen as starting points to real understanding (Ainscow et al 2003, Frankham and Howes 2006, Howes 2001 and 2007). Brenneis (1996) refers to this process as 'telling troubles' suggesting that the 'troubles' or difficulties, which emerged through the research are worth telling as they represent the detail, the tensions and the dilemmas when working through relationships. Other writers have also commented on this process, for example, Pillow (2003) suggesting a 'reflexive consideration of discomforts' and Lather (2006) by calling it 'negotiation with complexity'.

Through a post-modern frame of reference knowledge-generation is seen as a practice of 'linguaging', a practice of textual production (Usher 1997). There are no Archimedean points the subject is instead decentered, enmeshed in the 'text' of the world, embedded in

intersubjectivity, discourse and language. Knowledge is never absolute and universal, but partial and situated (Haraway 1988). Complexity, uncertainty, heterogeneity and difference become foreground.

Finally, complexity theory and post-modernism through pointing out what cannot be known as well as acknowledging the interpretive and textual nature of this research project will hopefully capture an essential quality of the project itself. This study is set within a vast, ever changing textual universe, the world wide web, which allows for many voices and a multitude of interpretations. Many of the workings of the world wide web cannot be known to the user, for example, the actual identities of other users or how Google assesses and ranks the importance of a website through its search algorithm. Post-modern thinking seems to be an appropriate framework to approach the complex virtual and social worlds, which exist online.

4.2.3 An epistemology of practice

With respect to epistemological concerns I believe it is helpful to consider what kind of knowledge this research study aims to generate. Park (2001) suggests that research often focuses only on one type of knowledge, namely theoretical knowledge. However, action research with its focus on developing practice needs to develop a practice-based understanding of knowledge. Park (2001) describes three types of knowledge, namely representational knowledge, relational knowledge and reflective knowledge. Firstly, representational knowledge of the functional subtype concerns itself with descriptions and causal relationships of a phenomenon. Knowledge, which is generated through quantitative science constitutes functional, representational knowledge. Representational knowledge of the interpretive subtype on the other hand manifests itself as knowledge about meanings and interpretations and requires the knower to be closely engaged with what needs to be known. This type of knowledge is emphasised in qualitative research.

A second type of knowledge is relational knowledge (Park 2001), which describes our knowing each other and a research area through relationships. *'Relational knowledge comes from connecting and leads to further connecting. It is reciprocal, not only in that parties involved know each other, but also that it grows from interaction.'* (Park 2001: 86).

Relational knowledge is expressed in the act of relating, in how we relate and understand

each other. This type of knowledge is extremely important in action research as information is accrued through the establishment of relationships, dialogue and practical interaction. To use a metaphor, relational knowledge may very well function like the connecting synapses between neurons in our brain. The connective pattern between neurons is the memory itself just like relational knowledge can be the core of what knowledge has been acquired through an action research project.

Thirdly, Park (2001) emphasises the importance of reflective knowledge, which involves the researcher and participants critically analysing their own actions, values and beliefs. *'Reflective knowledge creates collective autonomy and responsibility.'* (Park 2001: 86). Reflective knowledge is knowledge created through reflection-in-action (Schön 1983) or through reflexivity (Finlay 2002, Etherington 2004b) and is expressed for example in political awareness and the value system of the researcher. Additionally, reflective knowledge allows us to analyse whether our actions, which we have implemented to improve a situation, have had the desired effect.

A similar view to Park (2001) is put forward by Eikeland (2001) who reviews Aristotle's theory about knowledge. Eikeland also describes 3 kinds of knowledge, namely 'theoretical knowledge', which parallels Park's concept of representational knowledge, 'poetical knowledge', which Aristotle uses to describe knowledge of how to make something, which Eikeland calls 'craft knowledge' and Aristotle's concept of 'practical knowledge', which resides in the knower and constitutes knowledge of how to do something such as play an instrument. Aristotle's theory about knowledge is interesting as it is a relational model of knowledge. Theoretical knowledge has no relationship with the thing known, poetical knowledge has an intention towards changing an object and practical knowledge resides inside a person. Practical knowledge is acquired through experience and practical applications according to Aristotle. It also entails another component, namely 'phroneses', which is often translated as 'prudence' or 'good judgement'. *'Phronesis is specifically an ability to deliberate about and choose means for achieving ethically and politically good objectives. It presupposes knowledge of ethical and political "virtue".'* (Eikeland 2001: 148).

Aristotle's thinking about knowledge has deeply influenced Western thinking about epistemology and 'praxis' or practical knowledge. Unfortunately, later thinkers elevated

theoretical knowledge above practical knowledge, which has resulted in a theory-practice gap in the Western tradition. Action research always generates and values all types of knowledge not just theoretical knowledge (Susman and Evered 1978). Action research may look like an unlikely methodology to generate new knowledge given the fact that knowledge generation sits alongside practical action in this methodology. However, this argument loses its power as soon as knowledge is conceptualised beyond the narrow focus of representational knowledge. To truly understand practice based situations relational and reflective knowledge as well as representational knowledge is required (Park 2001), or in Aristotle's system, poetical and practical knowledge including sound ethical judgement are important. Within this study I hope to gain knowledge of all three types of knowledge outlined by Park (2001) and Eikeland (2001).

4.3 Methodological considerations of research via the internet

Due to its recent arrival, the internet is a very new addition to the research landscape in the social sciences. Although plenty of research has been conducted on the internet and world wide web in terms of technology and social phenomena on the web per se, other researchers have been slower to take up the internet as a valuable research tool (Jones 1999a, Mann and Stewart 2000, Adair et al 2006). Research via the internet can be done in three ways (Adair et al 2006). Firstly, the internet can be used to recruit participants. Secondly, the internet can be used as a medium for conducting research, for example, through online surveys. Thirdly, the content on the internet can constitute data.

Using the internet for research purposes brings up many issues which are unique to this medium. Mann and Stewart (2000) suggest a range of benefits and drawbacks when using the internet for research. The most important benefit, which the internet can offer, is that it can ensure complete anonymity to research participants (Mann and Stewart 2000, Mustanski 2001). With offline research the researcher may meet the participant in person or may know his or her name, address or telephone number. With research conducted online none of these details need to be known to the researcher. This can be advantageous as it allows researchers to engage with difficult to reach populations or elicit more honest accounts from participants (Matthews and Cramer 2008). Another benefit of using the internet for research is that it can provide easy access to participants. This can mean global and cross cultural access to participants or access to hard to reach populations who would

often not be willing to take part in research (Duncan et al 2003, Matthews and Cramer 2008).

Additionally, research through the internet can facilitate access to sensitive information. Adair et al (2006), who used narrative analysis to study the home pages of anonymous individuals who had an eating disorder, found that the narratives they analysed seemed to be more open about sensitive topics such as sexuality, suicidal thoughts, past history of abuse and the use of drugs and alcohol. They suggest that individuals might find it much easier to disclose such potentially embarrassing information anonymously on the web than in an interview whilst sitting face to face with an unknown interviewer.

A further important advantage of using the internet for research are time and cost savings for the researcher (Mann and Stewart 2000). The internet allows access to participants globally without huge costs. Flat fees for broadband in many countries in the Western world mean online researchers do not need to budget for telephone bills, paper, postage or travel expenses.

Also, participants do not need to travel and can engage in the research on their own terms, often from the privacy of their own homes. Therefore, the internet can be very convenient for participants. It can also mean a safe environment for participants as they have complete control over how, when and to what extent they would like to contribute to research. Mann and Stewart (2000) suggest that this can be important for women, older adults and socially marginalized groups. Due to the fact that the researcher is not present participants may feel less pressurised towards socially expected behaviour.

Additionally, the data online researchers collect is already in a digital format (Mann and Stewart 2000). This saves time for the researcher, but also eliminates transcription bias or errors in data entry. The data itself can be saved in the original format, which allows the researcher to revisit it again and again.

However, using the internet for research purposes also entails drawbacks for researchers. One of the difficulties of researching via the internet is the impossibility of finding reliable information about who is currently accessing the internet and therefore what exactly constitutes the population from which participants are drawn (Mann and Stewart 2000).

Due to the sheer size and speed at which the internet grows any published figures are crude estimates which tend to be out of date by the time they are published. Additionally, organisations, which post demographic data about the internet online, tend to be commercial and give access to the most recent figures only to paying customers (Kendall 1999).

Researchers must consider the variations of internet usage amongst different demographic groups (Stewart and Mann 2000). In the past a 'digital divide' (NTIA 1999) has been suggested between men and woman in the Western world. Although this gender gap seems to have closed, other digital divides still exist along demographic, educational and economic fault lines such as for minority groups, older adults or young people. Beyond the Western world internet usage is increasing rapidly, but does so in a patchy way influenced by gender, education and socio-economic status. Furthermore, it is important to consider the quality of access to the internet a specific group may have.

To conduct research online the researcher must be familiar with the technology and conventions of the internet. However, the technology has progressed considerably making it much more user friendly. 10 years ago, researchers would still have needed to program their own online surveys in html format whereas today easy to use survey software is available, which manages lay out, distribution and design features of online surveys automatically.

Researchers must also consider strategies to safeguard data and how to communicate with participants in case of technological failures. Many qualitative research projects encourage frequent and in-depth exchanges between researcher and participants. Should the researcher experience technical problems it may be very disruptive or uncomfortable for the participants to experience a 'black hole' effect (Suler 1997). This describes the possibility that contact can easily be lost on the internet without clues as to what may have precipitated the other party's disappearance. It is important that researchers are able to use different computer facilities to be able to reach participants in case of technological failures. Back up arrangements are also important, as data can easily be lost through computer viruses or mismanagement.

4.4 The internet and methodological issues for this project

Not only is the internet used in this study to collect data, but the project itself and the research are completely embedded in this medium. The case study project mostly exists online as text and email exchanges with participants. The offline relationships of the researcher with her project partner and supervisor are also often mediated by technology through the use of email and telephone. To be congruent with the project itself the researcher has chosen to conduct all aspects of the research online such as collecting data online and writing her research journal online as a blog. Therefore, the internet permeates all aspect of the research process. Below I will discuss a range of elements of the online research environment which impact the research process for this study directly such as complete anonymity, power issues, the disinhibition effect (Suler 2004), the impact of culture and cross-cultural working and the role of gender.

All participants are completely anonymous to the researcher. Participants who use the email advice service are advised to use anonymous email addresses and names. Statistics about site usage are even more disembodied as they show only the tracks of visitors who cannot be identified. Mann and Stewart (2000) suggest that *'issues of anonymity and authenticity remain the core methodological stumbling blocks for researchers using online methods.'* (Mann and Stewart 2000: 75). Although complete anonymity can be seen as threatening the integrity of the findings of this research, it can also increase self-disclosure and a sense of security and empowerment for participants.

The researcher has no way of identifying or locating a participant within the real world. The only identifying cues are associated with the use of language and any details explicitly disclosed by the participants. *'Disembodiment separates the language of the researcher and participants from the social context which would give their words meaning. As a result, language has a heavy interpretive load to carry.'* (Mann and Stewart 2000: 197). The researcher has no way of verifying the data and must trust it implicitly. Therefore, validity cannot be based on a reference to an external truth and all data must be seen as textual narratives valid in themselves. The researcher must trust the fidelity of the data and submit to the limitations of what can be known via this medium.

The resulting loss of power for the researcher to control the research setting means an increase of power for participants who can choose to take part in the research on their own terms. This may also be facilitated by asynchronous email and web surveys. Bashier (1990) suggests that the internet supports a 'democratization of exchange' with its non-coercive and anti-hierarchical dialogue. However, power differentials still exist in cyberspace, although construction of power cannot be based on age, status, visual clues or sex as these characteristics can easily be hidden. '*Power relations remain because, even online, we are incapable of 'bracketing off'*' (Fraser 1994: 83). Status is assigned within online exchanges through details in the ancillary message of emails such as header and user names, through technical expertise or familiarity with the internet.

Power issues in this project result from the fact that the researcher and her project partner describe themselves as professionals and experts. Additionally, participants for the email advice service may feel in a one-down position due to the fact that they are emailing us to seek help with a potentially distressing issue. This is a similar dilemma as in psychotherapy where the professional is always in a position of power which she needs to embrace to be seen as potent, but also needs to give away as much as possible to encourage equality, agency and self-determination (Larner 1999). Power issues may also surface in this study due to the gendered presentations of the project partner (male) and the practitioner-researcher (female) who are both embedded in a global system of inequality based on sex. The problem of power cannot be solved in this research study, but the negotiation of power issues needs to be an ongoing process.

Suler (2004) first described what he called the 'disinhibition effect' on the internet. This term describes the fact that online people often disclose more information about themselves than they would do offline. The disinhibition effect may be based on the fact that the internet is anonymous and that users can write about themselves whilst alone in the privacy of their own homes. Researchers have also commented on the fact that the internet may allow for the collection of more detailed and revealing data than face to face settings (Mann and Stewart 2000). '*Particularly with asynchronous interaction, where there would be time to compose responses about a complex and delicate subject, a participant is less likely to feel flustered or foolish and may talk in greater depth.*' (Mann and Stewart 2000: 200).

Research for this project is by default always cross-cultural research. Firstly, the researcher has no definite way of establishing the culture in which participants are embedded unless they explicitly state their location. However, geographic locations do not necessarily coincide with cultural affiliation and it is important that no unsupported conclusions are drawn from the data. Additionally, the researcher herself is not located in her culture of origin, but approaches this research project through a second language and second cultural home. The researcher always assumes that the social and cultural field around any participant is unknown to her.

However, this lack of cultural reference points can also be of benefit to this research. Ma (1996) in her study of East Asian users of the internet, found that her participants saw the internet as '*culturally neutral*' as it disrupted the culturally important host/guest distinction. She suggests that online participants are less bound by a particular set of cultural rules that overshadowed spontaneous expression. Interaction in the virtual field may lead to more direct expression and greater self-disclosure even about sensitive issues. Ma's (1996) findings have been confirmed by Ryen and Silverman (2000) in their study of a cross-cultural email dialogue.

The potential decrease of constraints brought about by cultural norms on the internet would be especially beneficial to this research project enquiring into establishing an online service for sexual health and relationship education. Social norms are often very prescriptive around sexuality and sexual relationships in many cultures not excluding our own. Cultural etiquette often restricts what questions can be asked and who is allowed to ask them. Our project hopes to disrupt this cultural censoring of information, which constitutes oppression often along gender lines without the project itself becoming judgemental or critical in the process of challenging traditions. The project hopes to offer an anonymous and non-judgemental as well as culturally sensitive space to ask questions and receive answers. The researcher hopes that increased openness of participants will also generate more valid data.

Gender is an important variable on the internet. Although one's sex can be disguised or not disclosed on the internet research suggests that few users actually do so (Suler 2000). Kiesler et al (1985) found that a suggested female identity of a user increases self-exposure from men and Van Gelder (1991) reported that openness and intimacy increased in

(assumed) woman to woman discussions. Gender is therefore an important factor in this research project.

Reading Mann and Stewart (2000) Power Issues
Sunday, February 18th, 2007

(...)

Gender and social cues: I wonder whether that has changed quite a bit by now as there are many more women online than there would have been in 1998 (*i.e.* when Mann and Stewart 2000 would have been writing their book). 'Findings from Winter and Huff's (1996) study confirm other reports that 'marking oneself feminine' online can entail vulnerability to harassment and oppressive practice.' (Mann and Stewart 2000: 165) In a way this would really only apply to me as the female project partner and researcher. I am the designated female in all of this. Up to now, nobody has been funny with me. In fact I can check with Rod with respect to emails, people may find it easier to approach me with the female identity, rather than Rod. Our project is intentionally gendered.

(...)

In summary, methodological issues generated by the internet permeate this research project. They are in part technical in origin such as the anonymity granted by the internet, global access to participants resulting in intrinsically cross-cultural data gathering and benefits such as lack of costs and travel time for both researcher and participants. Additionally, the internet creates a research medium which is socially unique in many ways. Anonymity and distance from the researcher can result in empowerment of participants. On the other hand, researchers are faced with the impossibility of establishing the authenticity of data or the immediate context in which it has been generated. Cultural cues are largely missing and the researcher is faced with acknowledging the limits of what can be known from textual sources only. However, culture, power and gender still influence the research process albeit in potentially more subtly and hidden ways.

4.5 Action research methodology

Action research is a research methodology, which does not fit neatly within the quantitative-qualitative divide. Its framework combines scientific enquiry and theory building with practical action to solve problems in unique situations (Lewin 1946 and 1948, Reason and Bradbury 2001, Costello 2003). The following discussion will give a general introduction to action research, its history and attributes. I will then discuss the style of action research I have chosen for my project, which can be described as 'professionalizing action research' (Hart and Bond 1995). Furthermore, I will discuss additional features of

action research, which I believe are important to my work. Finally, I would like to examine the reasons for choosing an action research framework to answer the research questions as opposed to a different research methodology such as mixed methods research as well as share some of my reflections on my engagement with action research.

4.5.1 History of action research

The invention of action research is attributed to Kurt Lewin during the 1940s (Lewin 1946). Lewin was a social psychologist who was interested in practical solutions to problems he saw in society. The first application of his new methodology showed already a clear political aspect to it as it focused on change interventions for minority groups in the USA (Lewin 1946). Later, Lewin applied himself to human resource problems in factories for which some people accused him of Machiavelli-style social engineering. In addition, there are other contributions to the beginnings of action research. One of them goes back to Collier (1945), who searched for practical solutions for American Indian communities in his position as High Commissioner of Indian Affairs, USA. The Tavistock Institute in London developed its own unique outlook on action research slightly later (Trist and Murray 1990, Pasmore 2001). Practitioners who were often trained in psychoanalysis were looking for practical solutions to the problems of returning English servicemen after WWII. Their type of action research accounted for the internal reality of participants and unconscious processes.

Action research soon gained popularity as its combination of action and research appealed to many researchers. However, action research also received fierce criticism suggesting it was not scientific and promoted social engineering (Hodgkinson 1957). Still, action research developed a strong following for a while, but later on during the 1980s and 1990s faded again from the academic world to some extent as research fashion took up new methodological trends. Today, action research is still widely used in practice-based disciplines such as nursing, teaching and community development (Cohen et al 2000). Today, the term action research needs to be understood as an umbrella term, which groups together many different styles of action research.

4.5.2 Definition of action research

Lewin (1946) conceptualised action research as consisting of a series of steps which aimed at practical interventions as well as generation of knowledge. These steps were planning, acting, observing and reflecting which needed to be repeated in a cyclical pattern. Later writers suggested different definitions of action research, which tend to emphasise different aspects of action research.

Rapoport, a researcher connected to the Tavistock Institute gave the following definition of action research in 1970:

'Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework.' (Rapoport 1970: 449)

Other writers such as Reason and Bradbury (2001) stress the collective and political nature of action research by suggesting the following definition:

'Action research is a participatory, democratic process concerned with developing practical knowledge in the pursuit of worthwhile human purposes, grounded in a participatory world view (...). It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern for people, and more generally the flourishing of individual persons and their communities.' (Reason and Bradbury 2001: 1)

A definition by Carr and Kemmis (1986) stresses the self-reflective function of action research:

'Action research is a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understanding of those practices, and the situation in which those practices are carried out.' (Carr and Kemmis 1986: 162)

For my own study the definition set out by Carr and Kemmis (1986) reflects most clearly my emphasis on action research as a tool for self-reflective development of professional practice by a single practitioner. My own view of action research can be summarised as follows:

Action research is a cyclical process including planning and fact-finding, action, monitoring and reflection, which needs to be used in a collaborative and ethical manner to generate knowledge and practical solutions for individual practitioners or social groups. Action research by its very nature is political as it

aims at improvements in the real world and accounts for the impact of the researcher on the research process.

4.5.3 Features of action research

Action research exhibits features which align it with qualitative research methods, namely its embracing of social values and political dimensions, its contextual focus, the use of qualitative data which needs to be interpreted, and a strong emphasis on participation (Elden and Chisholm 1993). Additionally, action research often uses quantitative data to gain more insight into a specific situation. Therefore, its data gathering and analysis stages are somewhat similar to mixed methods research (Tashakkori, and Teddlie 2003).

However, action research always includes an action component, which sets it apart from mixed methods research. The following paragraphs discuss the features of action research in more depth.

Firstly, action research rejects the idea that science is value free. Its search for practical solutions to specific human dilemmas is grounded in an explicit value base of humanism and pragmatism (Reason and Bradbury 2001). The former concerns itself with the improvement of the lives of people whereas the latter emphasises that claims for authoritative knowledge need to be linked to 'what works'. As action research aims to impact the real world it is inherently political no matter whether a project focuses on a single practitioner or on a whole social group. Any change attempted within real world settings will challenge existing practices and power relationships. As such action research blends especially well with critical theory (Kemmis 2001) and feminism (Maguire 2001).

Secondly, action research is always bound by the specific context of each project (Susman and Evered 1978). Each piece of action research is a unique case study, which searches for 'local knowledge' and practical solutions (Elden and Chisholm 1993). Action research values 'tacit knowing' (Polanyi 1983) and the unique knowledge each participant brings to the research. Therefore, generalizability is not a concern of action research, however, the transferability of research findings to different projects and contexts certainly is.

Thirdly, action research uses a variety of data to make sense of a situation and to assess the impact of practical changes, which have been implemented. All data needs to be interpreted

according to the unique context of each project. Action research is highly eclectic and pragmatic when it comes to using different types of data be they quantitative or qualitative. Action research through its participatory nature emphasises that each participant is able to make meaning out of the collected data, rather than this being the sole domain of a professional researcher. Therefore, simple quantitative measures and qualitative procedures for analysis are valued in action research, which allow the generation of knowledge to be accessible to all participants.

As already mentioned above, action research is about participation. Elden and Chisholm (1993) state that action research is impossible without some participation. Even the styles of action research, which focus on the professional development of a single practitioner, encourage participatory co-operation and shared meaning making (Stenhouse 1975). However, Greenwood et al (1993) also warned against a 'dogma of participation'. On the other end of the spectrum is participatory action research, which seeks to empower participants and encourages them to take full ownership of a project as co-researchers (McTaggart 1991, Park 2001).

Action research, although context bound and whilst producing 'local knowledge' (Susman and Evered 1978), is nonetheless highly invested in knowledge diffusion. Susman and Evered (1978) see knowledge diffusion as the last, but nonetheless important step in action research. This process of sharing knowledge needs to happen within each action research project as all participants are allowed access to the knowledge generated through a research project. Additionally, knowledge needs to be shared with other researchers, practitioners and policy makers in an attempt to transfer learning into new contexts.

One new development in action research, which is highly relevant for this study, is an acceptance of the emergent character of action research (Levin 1993, Flood 2001). As mentioned above in my discussion on the contribution of systemic thinking to my research methodology 'emergent' describes the fact that action research projects cannot be rigidly planned in advance, but are designed to adapt and develop as new data and knowledge emerge through the process of researching. Therefore, action research is always dynamic and evolves as new knowledge and actions are applied. This sets action research apart from most other research methodologies.

Other writers produce their own listings of common features of action research. Peters and Robinson (1984) stress the participatory nature of action research whilst also underlining that it is problem focused, action orientated and cyclical. Susman and Evered (1978) conceptualised action research as future orientated, collaborative, situational, diagnostic and contributing to system development.

To summarise, the main features of action research are its explicit embracing of values and politics, its focus on the context of each unique situation, its use of qualitative as well as quantitative data, an emphasis on participation and empowerment, its dynamic nature, a belief in unrestricted access to knowledge and the importance of knowledge diffusion.

4.5.4 Practical steps involved in action research

As action research projects are always bound by their specific contexts theoretical discussions of action research methodology have often kept to discussing action research in general terms such as Lewin's (1946) original research phases of planning, acting, observing and reflecting. Later writers have adapted these stages, for example Altrichter and Gsetzner's (1993) model: Finding a starting point; clarifying the situation; developing action strategies and putting them into practice; making the teacher's knowledge public. Their model of action research phases seems to favour action over generating knowledge. Zuber-Skerrit (1996) on the other hand seems to emphasise the generation of knowledge in her model of action research steps: Strategic planning; implementing the plan; observation, evaluation and self-evaluation; and critical and self-critical reflection on the results.

At the beginning of my action research project I experienced all of these models as far too vague to give me clear guidance on what I actually needed to do within my research project. I found Elliott's (1991) very detailed model reassuring as it lays out action research as a series of clear and definite steps (see diagram 7).

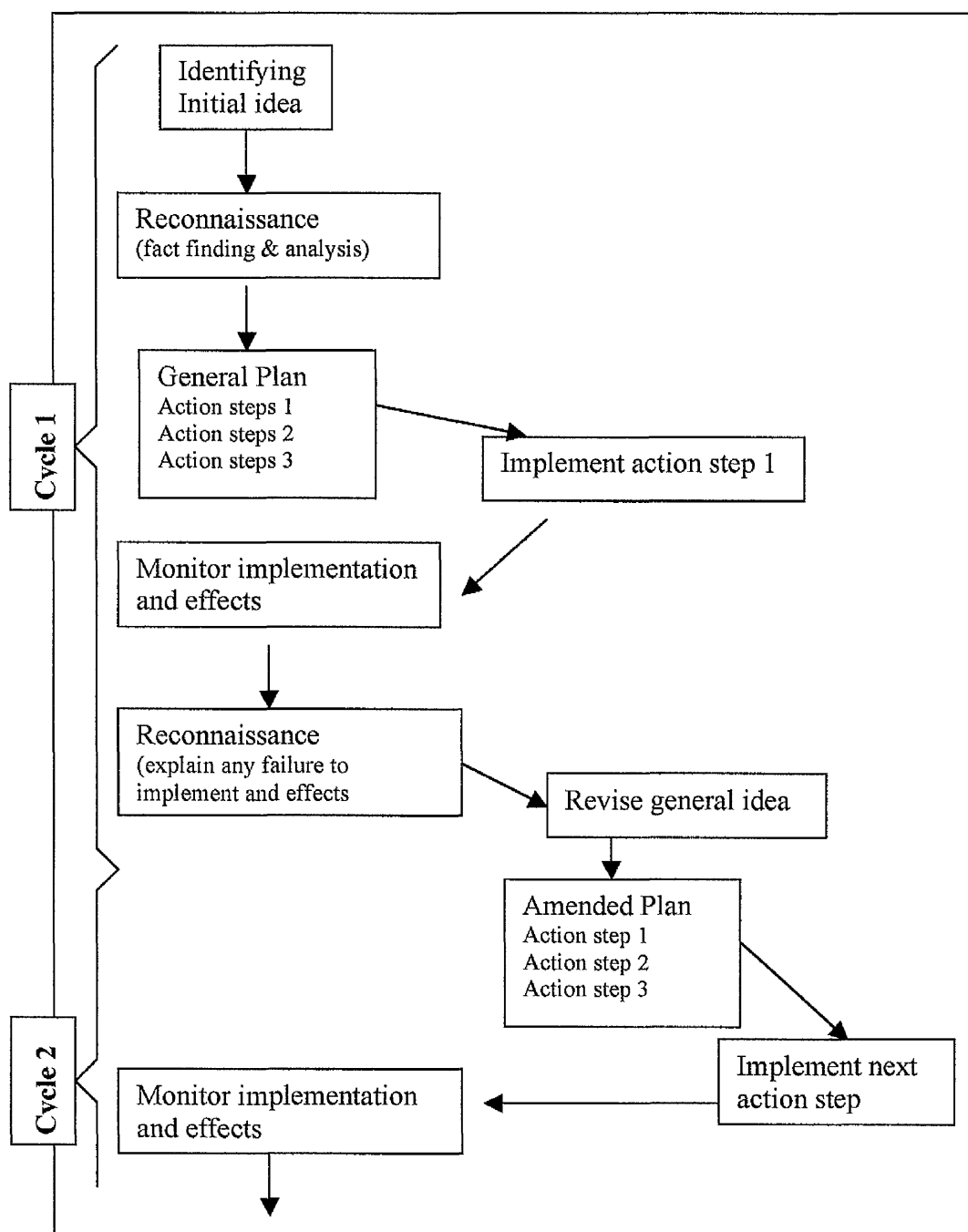


Diagram 7: Action research model by Elliott 1991, abridged

However, Elliott (1991) also advocates for some flexibility within his model. Firstly, he states that the general idea within an action research model needs to be allowed to shift as new data is analysed and interpreted. Secondly, reconnaissance needs to involve analysis as well as fact finding and should be a constant process accompanying all other research phases. Finally, he adds that the implementation of some action steps may not be possible in isolation, but that a whole cluster of steps may need to be implemented at the same time.

In addition, Ebbutt (1985) suggests that feedback between and within cycles is important which seems to point again to the emergent and dynamic nature of action research projects.

Other writers argue for much more flexibility within the action research cycle. Newman (1998) for example states:

'The difficult thing about doing action research is that you have to override most of what you've learned about research activity. In a traditional research culture you begin by framing a question, setting up a situation which might provide some information, collecting data which bears on the question, then writing up the results. Action research isn't like that at all.' (Newman 1998: 2-3).

Kemmis and McTaggart (1988) suggest that action research needs to adapt to complex situations and therefore may not be able to follow the usual action steps of plan, act, observe and reflect. More flexibility when conducting action research is also advocated by other writers who are focusing on developing practice (McNiff 1988, Meyer 1993, Hart and Bond 1995, Zeichner 2001). Hopkins (1993) makes the point most clearly by stating *'The tight specification of process steps and cycles may trap teachers within a framework which they may come to depend on and which will consequently inhibit independent action.'* (Hopkins 1993: 54).

4.5.5 Categorising my research project: Professionalizing action research

Within the diverse field of action research the methodology for this project can be called 'professionalizing' action research (Hart and Bond 1995). This type of action research focuses on researching into professional practice and is often used by practitioners. It has a long-standing history in practice-based professions such as nursing, social work and teaching (Hart and Bond 1995, McNiff 1988, Elliott 1991, Zeichner 2001, Lees 2001). Within teaching Stenhouse (1975) in particular championed the 'teacher-as-researcher'. Not only does he advocate for professionalizing action research within education, but he also encourages teachers to become researchers thereby reclaiming research and the academic world through following a practitioner-researcher model. As professionalizing action research often focuses on the practice of a single practitioner possibilities for participation can be more limited than in other action research projects.

A very important angle on the process of professionalizing action research comes from Schön's (1983) work on how practitioners reflect and learn during their work. Schön

mentions action research in his highly influential book on how professionals think and reflect only once and then only to dismiss Lewin's (1946) action research as far too rigid and too isolated within its own terminology. However, Schön's insights fit extremely well within an action research framework and especially within professionalizing action research. Schön (1983) argues that real-life situations within practice-based professions are often characterised by a high degree of complexity, uncertainty, instability, uniqueness and value conflicts. This makes it impossible for the practitioner to apply ready-made answers.

Schön suggests that the individual practitioner has to try and understand each unique situation and reshape his or her response accordingly. He calls this 'reflection-in-action' (Schön 1983). This process can be seen as a reflective conversation between the practitioner and the problem during which the practitioner experiments with conceptualising and manipulating a situation and the latter 'talking back' to the practitioner by providing constant data and feedback.

'In this reflective conversation, the practitioner's effort to solve the reframed problem yields new discoveries which call for new reflection-in-action. The process spirals through stages of appreciation, action, and re-appreciation. The unique and uncertain situation comes to be understood through the attempt to change it, and changed through the attempt to understand it.' (Schön 1983:132).

Although Schön (1983) is strictly speaking not part of the tradition of action research, his work is able to add much needed detail to how professionalizing action research can be achieved by each individual practitioner.

Action research has also produced highly phenomenological strands of enquiry, which are emphasised within the practitioner-researcher model. Torbert (2001) developed action research as a present-centred process, which focuses on a mindful and curious engagement with our every day actions. *'This 'living inquiry' seeks to integrate subjectivity, intersubjectivity and objectivity in moment-to-moment and lifelong actions that are timely and potentially transformational.'* (Torbert 2001: 258). His take on action research is similar to the concept of reflexivity (Etherington 2004) or aspects of heuristic research (Moustakas 1990). Other action researchers also stress the importance of reflection. Kemmis (1985) sees reflection as a dialectical process focusing on the researcher's internal world as well as the external realities and how the two interact. Reflection therefore, provides the basis for further action.

Whilst locating this project within professionalizing action research with its clear focus on development of practice I would also like to underline the importance of other elements. I believe that participation is an important aspect of all action research. Although this project is not located within the context of a group of professionals or a community of service users, i.e. people who know each other and communicate with each other, I have continued to be mindful of the possibilities for participants to contribute and influence the project.

Equally important to the researcher has been an awareness of the political possibilities of this project. Action research has been used extensively within a feminist framework to empower marginalised groups (Maguire 2001) or to make visible and critique the situations in which a research project is embedded (Kemmis 2001). The content of this research project, namely sexuality and gender, are at the very heart of the feminist agenda. It has been very important to me that action research is a methodology, which welcomes and explicitly calls for the inclusion of political influences and the wider social framework in which the research is embedded within the research design. Integral to this action research project is an exploration of how the researcher as a white, heterosexual, middle class woman in the Western world with her own personal and professional views on sexuality and relationships influences this project and is influenced by it whilst this study investigates how the project engages with service users and their stories about sexuality and relationships.

Dialogue is another central strand to action research theory and practice (Park 2001, Frankham and Howes 2006). It becomes a link between the action researcher enquiring into practice focusing on his or her internal reflections and external processes such as participation and building relationships. One could even go as far as to suggest that dialogue is the most important part of action research (Frankham and Howes 2006). Dialogue also contributes to validity, for example Hills (2001) suggests that validity can be achieved through including all stake holders in a dialogue about a research project.

The messiness of the action research process is another focus for discussion amongst action researchers (Elliott 1991, McNiff 1988). Cook (1998) explores this topic as a participant in a focus group of beginning action researchers. The group comes to the conclusion that 'messiness' is a necessary phase in action research, which allows for the immersion of the researcher in the data without premature categorizing. The inherent possibilities can then

emerge as creative solutions or abductive thinking (McLeod 2001). Cook (1998) suggests that 'staying with mess' may allow the researcher to access what Polyani called 'tacit knowledge' (Polyani 1983). Reason (1988) in his discussion of human inquiry also urges the researcher '*Whatever the degree of confusion, the challenge is for the inquirer to go with it for a while, no to pull out of it anxiously but wait until there is a sense of creative resolution.*' (Reason 1988: 53)

In summary, my action research project utilises the theoretical framework of professionalizing action research (Hart and Bond 1995) including Schön's concept of reflection-in-action (Schön 1983) to investigate the research questions. The internal reflections and reflexivity of the researcher are as important to this study as are the ongoing dialogues between the researcher and her project partner, her supervisor and the service users. Quantitative and qualitative data are collected to gain more insight into the project and plan action steps to improve the service. Additionally, the researcher is mindful of the wider political implications and external realities in which the project is embedded.

4.5.6 Rationale for the methodological choice for this project

The rationale for choosing action research methodology for this research project rests on the importance of service development and direct action alongside knowledge generation. Action research needs to be tailored to each unique setting, using a variety of different data gathering methods and freely combining quantitative and qualitative data according to what is required. Additionally, action research can account for systemic thinking (Flood 2001), which I believe is especially important for this project in which all of the very diverse elements such as web editing, psychotherapy, sexual health and use of online search engines need to interact and combine in a meaningful way for the service to be useful to visitors. Action research allows for dynamic change, flexibility and creativity during the research process to accommodate new developments and feedback from the project itself. I would see action research as affiliated to mixed methods research (Tashakkori, and Teddlie 2003), which also combines different types of data to increase understanding of a researched phenomenon. Action research however, is intrinsically dynamic and emergent in character whilst mixed methods research advocates a rigid pre-defined research design, which would therefore not be appropriate for this study.

4.5.7 Personal reflections on action research

Finally, I would like to say a few words about my own personal journey with action research. I am a reflective and introverted person who also enjoys getting things done. It is important to me to work towards specific goals and achieve them, to see outcomes and make sure that what I am doing matters in some way with respect to my ethical and political value system. Action research has always appealed to me as it mirrors what I tend to do naturally such as reflection-in-action (Schön 1983), being inquisitive and wanting to find out about the world as well as impact it and getting better at impacting it. Both the type of project and my research methodology are congruent with who I am as a person within myself and the world, so no wonder they seem to combine very well with each other too. Early on when I considered doing a PhD I was frightened that I could end up with a rigid methodology which would not be flexible enough to grow with me as I continued to grow as a person over the duration of the PhD. Being a completer I would feel compelled to continue working on a research project that had gone dead for me, which seemed like a nightmare scenario. With choosing action research as a methodology I was sure there would be enough room for me and how I might change within the research methodology.

Once I started reading about action research I became doubtful about what it actually entailed. A lot of the literature seemed vague about the practical steps involved and I worried about getting it right. I found Elliott's (1991) detailed model reassuring, but on the other hand I was already fully engaged in the project and what I was doing didn't really fit Elliott's model. I was questioning whether I was really doing action research and if I was, was I doing it right. It was reassuring to me to read other writers who acknowledged similar feelings of self doubt (Meyer 1993, Cook 1998).

The more I read about the background of action research and its link to feminism (Maguire 2001), systemic thinking (Flood 2001), clinical practice (Schein 2001) and pragmatic thinking (Levin and Greenwood 2001) the more I was convinced that action research was me through and through. Some of my doubts about whether I am doing it right have remained and ultimately I will only know at my PhD viva whether what I have been doing is good enough action research for an academic frame of reference. On the other hand, using action research as a structure to investigate my work on Sex-and-Relationships has been invaluable. As my version of action research applied to my project started to develop

and improve the website and my understanding of it my fears about doing action research the right way have become superseded by an acceptance of the fact that it seems to be working. Another action researcher may have approached this project very differently and created a different version of action research in the process. However, I experience action research similar to psychotherapy, which must not be copied from teachers or books in a lifeless fashion as it needs to become embodied each time afresh. For me action research needs to come alive within each unique situation and for each individual action researcher. My methodological doubts remain, but I have tried to contain them as I did not want them to get in the way of the unfolding project.

4.6 The practitioner as researcher

Practitioner-based research has a long tradition in action research (Stenhouse 1975) and social science research in general (McLeod 1999). One of the benefits of being a practitioner-researcher is the insider status of the researcher (Robson 1993, Meyer 1993). Long negotiations about access to a research site are not necessary. However, ethical issues arise through the likelihood of dual relationships between the researcher-practitioner and the participants-clients (Bourdeau 2000), a discussion, which I will develop more in my section on research ethics. Also, the insider status can turn out to be a problem, for example, when a low-status practitioner-researcher is not allowed access to high-status dialogue or the practitioner is already invested in a particular view of a situation. Another main disadvantage to being a practitioner-researcher is the amount of time and knowledge needed to fulfil both roles. On the plus side, as a practitioner the researcher may be able to implement actions or research strategies much more efficiently than any outsider. It is also possible that practitioner knowledge will enhance the research design (Winter 1989).

An interesting strand of action research based on the practitioner-researcher model has been developed by Schein (2001) in organisational contexts, which he calls 'clinical inquiry'. In Schein's model the researcher is first and foremost called into the research context as a practitioner who has something to offer, for example as an organisational consultant. Therefore, the practitioner's primary goal is to offer his or her professional expertise after having been approached by an organisation. Through the process of engaging with the problematic situation the researcher also collects rich data as an insider, what Geertz (1973) called 'thick descriptions'. The researcher has no problems with gaining access to a site and

can delve into the deeper meanings of a social situation therefore generating more valid data in the process.

Within my research my own clinical skills as a psychotherapist are essential to the research process. As a practitioner-researcher I am able to develop the project itself using my clinical skills whilst also being able to research the development process of the service and the way service users interact with the project. Without being able to offer service users my professional skills on an ongoing basis, it would be impossible for me to collect some of the data such as the email exchanges following queries sent to me as a practitioner. Robson (1993) using some of the work of Winter (1989) suggests strategies, which can support practitioner-researchers. Firstly, the practitioner-researcher needs to establish a clear boundary between his or her normal professional role and the research activity to counter arguments that the research constitutes nothing new. With respect to my own project I have found a clear distinction very helpful as well as problematic. Robson (1993) also suggests that the practitioner-researcher will need to make sure that he or she has enough time, support and advice on research methodology to be able to conduct a rigorous research project as well as complete ongoing professional duties. Practitioner-researchers themselves emphasise the need for emotional as well as methodological support (Webb 1989, Meyer 1993).

4.7 Data collection

Due to the emergent nature of action research choices about what kind of data is needed and can be collected are made during the process of research. Additionally, the online environment of the research study limits what type of data can be collected. It is envisaged that quantitative and qualitative data will be collected simultaneously for this study to gain insight into different aspects of the project. In accordance with a pragmatic approach to action research, simple measures will be preferred as they allow for easier access to information and knowledge for participants and outsiders.

4.7.1 Quantitative data

Quantitative data, which were collected about Sex-and-Relationships include statistics on website usage, number of incoming links to the site, demographic data of participants from

the online surveys and numbers of email queries received and emails exchanged for the email advice service.

Statistics about visitors to Sex-and-Relationships were collected by a website management software called Google Analytics. This is a free, web-based software package run by Google. It collects quantitative data such as numbers of daily visitors, approximate location from which they have accessed our site from, how long visitors stay on the site on average or what language their browser is set to. The data is collected through placing 'cookies', which are software markers on the computers of visitors. However, some internet users disable cookies or delete them on a regular basis in which case Google Analytics is not able to pick up the correct data. Within the web hosting community it is generally suggested to treat Google Analytics figures with a +/- 10% range of accuracy (personal comment Rod). The researcher has no way of reliably corroborating the quantitative data collected by Google Analytics with data collected in a different context, another reason why Google Analytics data must be treated with caution. The only absolute physical data sets that could be collected are the server logs, which record the number of data packages requested from the actual computer on which Sex-and-Relationships is hosted. However, server logs do not track individual users or even individual web pages as web pages are compiled of many individual data packages.

Another source of website statistics was compiled by Google Webmaster Tools, another free, web-based software package by Google. Google Webmaster Tools compiles figures about the technical aspects of a website such as number and source of incoming links to the site and overall importance of pages within the Google ranking algorithm. Both software packages by Google do not allow for individualised adjustments by the researcher.

Online surveys as data collection tools have received some attention by researchers due to their inherent benefits such as their low-cost, convenience for participants, elimination of non-standardised data entry and quick response rates (Lumsden and Morgan 2005). Mathy et al (2003) reviewed a series of studies comparing online and offline data collection methods and concluded that no differences could be found in the data according to what data collection method had been used and that offline and online reliability of data were the same. Joinson and Reips (2007) arrived at a similar conclusion. Therefore, it can be assumed that guidelines for good survey designs for pen and paper surveys are also relevant

for online surveys. These include well thought through questions, a clear structure, engaging presentation and for any survey to be as short and concise as possible (Cohen et al 2000, Burgess 2001).

The surveys used in this study were constructed with the help of ASP survey software, which the University of Manchester subscribes to. ASP surveys are completely web-based surveys, which are formatted through the use of predefined blocks such as different categories of questions. ASP survey software is hosted by its own company, which manages all technical and web hosting aspects for the survey software. The programme uses a graphical design interface, which can be accessed after having opened an account with ASP survey software. The software is very easy to handle and surveys can be assembled and deployed within an hour. It arranges the layout of surveys automatically and complies with suggestions for the design of online surveys such as clear layout (Witmer et al 1999, Lumsden and Morgan 2005). However, this type of online survey does not allow for design flexibility or inbuilt routines for data (Crawford 2002). Joines et al (2007) and Joinson and Reips (2007) investigated the usefulness of personal salutations for online surveys and concluded that the more anonymous a web survey was the more disclosure could be expected from participants. Therefore, the fact that the web-based survey for this study can be completed with complete anonymity can be assumed to increase validity of the data. Finally, a technical detail needs to be taken into account with online surveys. Healey et al (2007) found that the use of radio buttons for questions was better in online surveys as drop-down menus are open to input errors when used with a scroll mouse.

The online surveys for this research project were announced via a text box on the home page of Sex-and-Relationships. Visitors to the site were able to click on the link to the survey and complete it anonymously. All participants to the surveys were self-selected and cannot be assumed to be representative of all of the visitors to Sex-and-Relationships. In general, the 4-page survey started with an informed consent statement followed by questions about demographic data such as age, sex and geographical location of the participant. The last two pages of the survey changed to focus on different themes. Participants could only complete each survey once and only after giving informed consent on the first page of the survey. Each entry was completely anonymous.

Finally, quantitative data was also collected through the email advice service. I recorded how many emails I received and how many subsequent emails were exchanged. To gain more insight into the email advice service an email with a link to a feedback survey was sent out to service users a few days after my initial reply. This survey was also compiled with the help of ASP survey software.

To facilitate a clear structure for the research process in advance of data collection I envisaged using a few basic quantitative markers as indicators for improvement of Sex-and-Relationships. However, the selected indicators were for initial guidance only and were to be reviewed as the action research process unfolded. I was hoping to use these indicators as basic measurements to monitor the development of Sex-and-Relations. The quantitative indicators were as follows:

- Number of visitors to the site
- Number of incoming links
- Number of email queries received
- Demographic data received through the online survey

4.7.2 Qualitative data

Qualitative data is of great importance to this research study as it gives context and meaning to quantitative figures. As the research study is located completely online no ready-made context can be assumed in which participants can be located. Qualitative data allows some insight into how visitors to the site may experience the service, what the context is from which they are approaching the service and how I could improve the service to suit their requirements.

Qualitative data was generated in a variety of ways for this study. Firstly, the online survey included open-ended questions asking for specific feedback and general comments. The same option existed in the email follow up survey. Additionally, qualitative data was created through the email advice service. Participants' emails give insight into the issues they are struggling with, potential clues as to their geographic and cultural locations and their English language skills. Emails may also allow a glimpse into their world, their lives, relationships and general concerns. Within the email advice service I used my skill as a

psychotherapist to offer participants a service as well as gather data in the process (Schein 2001).

Another strand of qualitative data for this research arises out of my own critical reflections on the project (Moustakas 1990, West 1998 and 2001, Etherington 2004a and 2004b). As the research is located at the intersection of many narratives my own story and reflections about the project are an important element of the whole meaning making process. To support my own reflexive practice in a way, which is congruent with the project, I am using a blog as an online research journal (see discussion on blogging in my literature review). The blog has been a useful tool to collect, organise and store my thoughts, feelings and metaphors, which have surfaced in response to the research process. Additionally, the blog allows open and public access to a chronological record of the research process creating an audit trail (Lincoln and Guba 1985) as well as organising strands of thoughts through the use of categories into preliminary story lines.

Finally, qualitative data was generated through the ongoing dialogue about the project with Rod. This dialogue consisted of mainly emails and some notes on telephone conversations as well as the occasional face to face meeting. Our emails reflect our concerns at any particular time, possible ideas we have played with and strategies we have developed to improve the service.

As with quantitative data, the range of available qualitative data is in some sense very broad as data simply keeps on being generated through the ongoing business of running the service. On the other hand, some data is not available at all for this project such as the identity and offline contexts of participants. Therefore, choices need to be made about which type of data to collect and whether doing so is congruent with and does not impede the service provided. At the start of this study I envisage using the following qualitative data to help monitor the development of Sex-and-Relationships:

- Themes in my ongoing dialogue with my project partner
- Themes in my own critical reflections recorded in my online research journal

The following table gives an overview of types of data available for this research project:

Source of Data	Quantitative Data	Qualitative Data
Google Analytics (website usage statistics)	Number of visitors, geographic location, average time spent on site	none
Google Webmaster Tool (website features)	Number of incoming links	none
Online surveys (ASP survey software)	Number of surveys completed, demographic data, data from yes/no questions	Answers to open ended questions and comments
Email advice service	Numbers of email queries sent to us, numbers of emails exchanged	Content of email queries: Questions asked, personal details disclosed, feedback to service given spontaneously
Feedback survey for the email advice service (ASP survey software)	Numbers sent out and numbers completed, data from yes/no questions	Answers to open ended questions and comments
Online research journal	Number of blog posts and numbers of posts in each category	Content of blog posts, themes arising over time
Dialogue with Rod	Numbers of emails, phone calls and meetings	Content of dialogue, themes arising over time
Other data sources	Figures from other materials created during the research process	Content of other conversations about the project, other materials and artefacts

Table 1: Available quantitative and qualitative data in this research study

Additionally, I tried to envisage how this data may be able to answer my research questions. The result is shown in a set of tables in Appendix 1. The tables were guides to what kind of data I thought to use to answer the research questions, but they only formed initial guidelines to aid the real investigation. Action research is emergent in nature and data collection is to be adapted according to the unfolding action research process.

4.8 Sampling issues

Conducting this study solely online creates some issues around sampling. Although more and more people are online the online population is not representative of humanity as a whole or even just of all people living in the Western world (Mathy et al 2003). Research conducted via the internet will under-represent those populations with limited access to technology (Eun-Ok and Wonshik 2001, Nosek et al 2002) such as minority groups, older adults, young people and people with difficulties in accessing services in general. On the other hand, the internet can enable research with hard to reach populations and group members which would normally not engage in research as online research can guarantee absolute anonymity (Nosek et al 2002, Duncan et al 2003, Matthews and Cramer 2008). Two studies have compared a self-selected internet sample of men who have sex with men with a self-selected sample responding to an offline survey and have found that the samples vary according to demographic variables (Ross et al 2000, Ross et al 2005) confirming the unrepresentative nature of internet populations.

With respect to this study, the target population for data collection was all visitors to Sex-and-Relationships. However, this target population cannot be sampled even with the website statistics due to limitations in the collection of website statistics. Participants for the survey and email advice survey are self-selected. The data collected through these means cannot be taken to be representative of all visitors to Sex-and-Relationships.

4.9 Validity

Hammersley states that *'by validity, I mean truth: interpreted as the extent to which an account accurately represents the social phenomena to which it refers.'* (Hammersley 1990: 57). To define validity against which claims of knowledge for this research project can be judged using quantitative criteria such as generalisability, objectivity and replicability is not appropriate due to the context specific and emergent nature of action research. On the other hand, I believe the notion that action research is a subjective and singular event and therefore does not need to prove the validity of its findings to an outside observer (Rolfe 1996) contributes nothing to the rigour of this study.

The development of criteria for validity for qualitative research is a long-standing debate with different writers suggesting different sets of criteria to judge qualitative research

against (Stiles, 1993, Nolan and Behi 1995a and 1995b, Hope and Waterman 2003). Guba and Lincoln (1989) suggest credibility, transferability, dependability and confirmability as criteria for qualitative research, but also express reservations about their use and add further 'authenticity criteria'. Other writers suggest a recourse to certain 'tactics' such as the use of triangulation, respondent validation, clear exposition of methods of data collection and analysis, which is summed up with the term 'transparency', and reflexivity (Pope et al 2000). Creswell (2003) suggests 8 primary strategies to ensure validity, which are triangulation, member-checking, rich, thick description, clarifying researcher bias, presentation of negative cases, spending prolonged time in the field, peer debriefing and the use of an external auditor.

Reading: Qualitative research methodology

Monday, November 6th, 2006

(...)

Maybe I am struggling a bit with the concept of validity, because I am still caught up in a positivist framework. Somehow I feel I need to describe everything as it 'truly' is, when actually maybe it's ok to describe the essence of how I have experienced things and maybe find a way of including other people's expressions of how they experienced the project. What was the outcome of the project? Maybe we don't need figures and stats, maybe we need to know whether we have touched people and how.

(...)

However, the above strategies to ensure quality within qualitative research do not do justice to the applied and emergent nature of action research. Action researchers have therefore considered their own approaches to validity. One of the key elements of validity in action research is the pragmatic value of the findings. Hope and Waterman (2003) for example, underline practical outcomes in action research as a sign of quality. For Kemmis and McTaggart (2000) validity is aligned with the generation of information that can bring about change as well as outcomes, which are embodied in collaboration, participation and personal and professional development. Levin and Greenwood suggest that '*Validity claims are based on figuring out whether the knowledge created leads to concrete actions that really solve the 'practical' problem at hand.*' (Levin and Greenwood 2001: 107). They go on to state that with action research the researcher and the involved stakeholders are often willing to trust the findings and re-organise their personal and professional lives accordingly, which shows the validity of the findings. '*Few conventional social researchers would risk their personal well-being on the validity of their theorizations.*'

(Levin and Greenwood 2001: 104). Therefore, one aspect of validity in action research and for this study is the criteria of 'workability' (Levin and Greenwood 2001).

Additionally, Hope and Waterman (2003) underline the importance of the cyclical approach to ensure validity. *'The dialectical movement between action and reflection is promoted as essential in recognizing the complexities of practice and, as a consequence, validity is enhanced when researchers allow opportunities to deal with emergent issues and for the refinement of ideas.'* (Hope and Waterman 2003: 125). Clearly ongoing iterations of data collection, analysis and interpretation as well as additional reading, dialogue and respondent validation increases the accuracy of findings in action research and will be important for this study.

Bradbury and Reason (2001) discuss 5 choice points, which they suggest increase the quality of action research. Firstly, they state that theory and practice must be congruent, secondly, that action researchers must attend to the quality of relationships with participants. Issues of interdependence, politics and power must be addressed on all levels of the project. Thirdly, they re-affirm the importance of the practical outcomes of a study. Furthermore, they suggest that action researchers need to attend to different ways of knowing (Park 2001) and finally, that action research unfolds over time and that long-term viability of projects is an important aspect of the quality of the research.

Own thoughts on validity

Tuesday, October 31st, 2006

How do I know my work is good?

1. Level of critical thinking, be transparent about my own development and that of the project. I guess the blog comes in really handy here, because I can write and re-read, re-organise ideas via different categories, (...)
2. Feedback from participants through emails, the survey and server logs. Of course people all self select and I may get a very skewed picture.
3. Pragmatic: Does it work practically, financially, does it help people?
4. Ethical mindfulness. That's really important in terms of how I present the material and how I conduct my direct contact with others.
5. Rigorous, thorough, richness of thinking through effort. What would be 'good enough'?
6. How does this project make me grow as a person and as a practitioner? What does it do for Rod in that respect?

Then I started thinking maybe I need more therapy style parameters as the two start to seem pretty similar!

1. Attention to process.
2. Be able to go to meta perspective = internal supervisor = reflexivity.
3. Willingness to be impacted, be open to change and dialogue.
4. Account for myself, others and the relationship in the dialogue.
5. Ethical mindfulness, boundaries, care and consideration for my impact on others.
6. Ultimately what is the outcome for participants? More awareness, change, a better life? What is the outcome for me? More awareness, skills, change, and a better life?

In summary, this study orientates itself towards validity as conceptualised for action research by Hope and Waterman (2003) suggesting a pragmatic interpretation of validity and the use of a cyclical process of refinement for research findings. Additionally, Bradbury and Reason's (2001) criteria for validity in action research, namely congruence of theory and practice, quality of relationships, pragmatic concerns, extended ways of knowing and enduring consequences will be used to judge the quality of the research findings. They suggest that ultimately we need to '*cultivate a rigour of uncertainty. What we know is really just a hypothesis about reality. Of course good interpretations are those that are more reasonable than others. And reasonableness can be tested in community, that is whether others also act as if they think the hypothesis is reasonable.*' (Bradbury and Reason 2001: 451). Special attention will be given to elements of dialogue and shared evaluation of data for example through the ongoing dialogue between project partners. Furthermore, an ongoing and public audit trail (Lincoln and Guba's 1985) is provided for the research process via the blog. The researcher also aimed at a high degree of reflexivity (Finlay 2002, Etherington 2004b) as a way of ensuring the validity of the research.

4.10 Data analysis and data interpretation

Within this research project data analysis is attempted with simple methods to be congruent with the overall pragmatic outlook of the project. Data collection and data analysis need to facilitate understanding of the project and support planning of action steps towards pragmatic improvements rather than solely constituting an end in itself. Data analysis must not be seen as a linear process, but as a recursive one, which develops over time (Braun and Clarke 2006).

For the analysis of quantitative data simple figures and statistics were used to describe and synthesize the data. Google Analytics software as well as the online ASP survey software already incorporate simple analytic steps which help to make the raw data more accessible.

Qualitative data was mainly analysed through qualitative content analysis (Morgan 1993). Morgan suggests that qualitative content analysis is more qualitative than its quantitative version by allowing codes to emerge from the data itself and by including a further step of interpretation of the counted data sets at the end of the analytical process. Firstly, data is coded by hand by the researcher with the use of codes, which emerge from the data itself. This allows for codes to be grounded in data and results in more flexibility than in quantitative content analysis. Themes are compared against each other during coding and refined to eliminate overlaps. Secondly, frequency of themes is counted and represented with numbers. Counting themes represents the end of the descriptive process and the start of an interpretive one. Morgan suggests that qualitative content analysis truly mixes aspects of quantitative and qualitative data analysis. Its benefits include an easy comparison of themes according to frequency and making large amounts of qualitative data manageable and accessible.

A further possible method to analyse qualitative data in more depth is thematic analysis (Braun and Clarke 2006). Braun and Clarke (2006) give a detailed description of thematic analysis, which they see as the basic building block of a variety of analytic methods for qualitative data. They state that analysis involves a constant moving backwards and forwards between extracted codes and the original data sets. Braun and Clarke's (2006) paper on thematic analysis can be seen as describing the detailed process of coding and as such will inform my qualitative content analysis.

Additionally, this study utilised a variety of ongoing analytic processes. Firstly, data is discussed and thereby analysed through my ongoing dialogue with my project partner. This type of analysis can be seen as a process of peer debriefing (Creswell 2003). Secondly, analysis formed part of my online research journal. A category called 'analytic memo' has been created for the blog, which allows the researcher to write down her thinking about data and what it may mean on an ongoing basis. Finally, writing in itself is a highly analytical process for the researcher. *'Writing is an integral part of analysis, not something*

that takes place at the end, as it does with statistical analysis.' (Braun and Clarke 2006: 86). Therefore, writing this research report is in itself an act of analysis.

Data interpretation is a process, which interlinks with analysis, however, it also constitutes a further step of working with the data. As Turner suggests '*The data do not speak for themselves they only hint at something if you are able to hear.*' (Turner 1988: 116). Data analysis by itself does not necessarily create meaning out of collected data. The findings of a research study must be put into context in relation to the research questions posed. Data interpretation is a creative process, which allows the researcher to bring herself more fully into the research process. Fetterman states that the qualitative researcher needs to have '*an open mind, not an empty head.*' (1989: 11), a statement which suggests the importance of the researcher's past professional and personal experiences in the meaning making process. Data interpretation was an ongoing, cyclical process, which included reflexivity, writing and dialogue in an attempt to understand the collected and analysed data in relation to the research questions. The reporting of the findings is in the form of a chronological narrative (McLeod 1997) integrating the different strands of data. This also draws on the idea of the researcher-as-bricoleuse (Denzin and Lincoln 1994), a flexible and practical approach to data interpretation, which in this case mirrors the situated, chronological and piecemeal development of this piece of action research and allows for abductive thinking processes.

4.11 Ethical issues in research

Any research design throws up ethical issues, which must be considered (McLeod 1994). General ethical principles, such as beneficence, non-maleficence, autonomy, justice and fidelity can help a researcher reflect on what may be the ethical dilemmas posed by a particular piece of research. Of the above principles non-maleficence must be considered to be the most important one, as first and foremost, research should do no harm to participants. However, all research, just as any other activity including breathing, will always include an element of risk. Therefore, researchers must consider potential risks which participants may be exposed to through taking part in the research. Some potential risks can be circumvented through good research design and practice whereas other risks can only be minimised, but never completely avoided.

Unavoidable risks are managed in research through asking participants for informed consent (Bond 2004). This procedure respects participants' autonomy and their right to take part in a research project even though this will include risks. Informed consent involves giving participants clear information about what is involved in a research study, what data will be collected, what will happen to it and what potential risks could be incurred. Participants must be fully informed, legally able to give consent and do so on a voluntary basis, i.e. without expecting negative consequences if informed consent is not given. Each participant needs to be aware that he or she has the right to withdraw consent at any given point throughout the research process right up to the point of publication. Qualitative research often involves extensive and detailed data gathering by researchers. Ongoing relationships with research participants are encouraged, for example, to allow for respondent validation (Cohen et al 2000). In such cases gaining informed consent only once may not be appropriate and researchers need to consider asking for informed consent repeatedly engaging in what Munall (1988) called 'process consenting'.

The main risk involved in taking part in social science research and disclosing private information to a researcher is around potential exposure due to information about individuals being made public. Guaranteeing anonymity to research participants is a standard procedure to rule out possible negative consequences for research participants (Bond 2004). A researcher must be conscientious about recording and storing data in a way that is secure throughout the research process and disguising the identity of participants in the final research report. It is important to give this process of anonymising participant's contributions in the final write-up careful thought as data should not be distorted so that the integrity of the research does not suffer, on the other hand, details must be altered sufficiently so that close friends or relatives of a participant, who may read a publication, would not be able to identify an individual. With qualitative data and aiming at the use of thick descriptions (Geertz 1973) this can be difficult.

An ethical issue, which often arises for the practitioner-researcher, is that of dual relationships (Bourdeau 2000, Etherington 2001a, Stummer 2006). If the participant has another, potentially very important relationship with the researcher such as a therapeutic relationship, gaining informed consent becomes a very complex situation. It needs to be assessed on an individual basis whether the researcher feels that the participant is able to

freely give or refuse consent without being influenced by the other relationship he or she may have with the researcher.

The implications of power differences between participants and the researcher create further ethical dilemmas. It is important to remind oneself who has power over what during the research process. As the author of the final publication the researcher always has ultimate control over a research project even though participation and shared decision making may be part of the research design. The researcher needs to be mindful of his or her use of power and be open to signs of unease or over-adaptation in participants. The researcher must at all times respect the autonomous decisions of research participants even if these decisions are unhelpful with respect to the research. Issues of power cannot be resolved and must not be put to one side after an unquestioning application of an ethical code (Bond 2000, West 2002). Reflexivity and ethical mindfulness support the researcher in recognising oppressive practices and acting accordingly. An ongoing dialogue about ethical matters with a supervisor can also provide external confirmation or challenge and make sure that the researcher does not operate within a closed system.

Finally, I would like to comment on considerations resulting from other ethical principles such as beneficence, justice and fidelity. Beneficence suggests that the research needs to aim at creating a positive outcome. This could be gaining more knowledge, which could at some point benefit other people. Within action research beneficence acquires an additional meaning in that participants and the researcher should directly benefit from improved practice and other pragmatic outcomes of the research. In fact, should there be no practical improvement through the research, one could consider the research invalid according to a pragmatic interpretation of validity. Justice refers to the fact that the researcher needs to treat all participants in a fair and just manner, which is an integral part of the value base of action research. Fidelity can be seen as trustworthiness and honesty. It also applies to safeguarding the integrity of the research process (Bond 2004).

4.11.1 Ethical issues in online research

Conducting research online brings up a separate set of ethical dilemmas (Kraut et al 2003). The internet has largely customary rules rather than being regulated by law due to its newness and international reach. Additionally, the internet has been a place for

transgression of cultural norms. Therefore, Mann and Stewart (2000) place great emphasis on the researcher self-regulating and taking responsibility with respect to ethical matters.

Confidentiality of data in transit cannot be guaranteed online unless an encryption programme or secure server is used (Mann and Stewart 2000). Encryption programmes are freely available on the net, but each individual user would need to know how to apply them. Secure servers are technically demanding and expensive. Additionally, data, which can be linked to identifiable individuals, is regulated through data protection legislation in the UK.

Given the points above and the potentially sensitive nature of data collected through the email advice service (Binik et al 1999, Plaut and Dohaney 2002, Ochs et al 2002), the researcher chose to work only with completely anonymous data. This avoids problems with data transmission as well as other possible breaches of confidentiality through data mismanagement or the publication of insufficiently disguised personal information. Therefore, complete anonymity eliminates most potential risks for participants taking part in this research study. However, it brings up new dilemmas for the researcher. As the researcher does not know who the participants are she cannot fully claim to have gained informed consent (Mann and Stewart 2000). Data protection legislation does not apply to data, which cannot be linked to individuals. However, this also creates a drawback in that participants will not be able to withdraw their entries from the survey data once it has been submitted as the researcher will not be able to identify which entry was made by any particular individual (Mathy et al 2003).

The absence of the researcher means less social pressure on participants to conform or take part in the research making online research more equal (Nosek et al 2002). However, the absence of the researcher also means that it is difficult for the researcher to pick up flaws in the data gathering process or distress caused to participants (Nosek et al 2002). In addition, the geographical distance between researcher and participants makes it difficult for the researcher to intervene, should the researcher be notified of distress or confusion by a participant.

4.11.2 Ethical issues in action research

Action research has ethical dilemmas, which are particular to this type of research (Meyer 1993, Williamson and Prosser 2002a and 2002b). One of the main issues is around informed consent and that truly informed consent cannot be given to participation in an action research project given the emergent nature of the research. Even the researcher will not know in which direction a research project may develop and can therefore not give a participant all of the information in advance (Meyer 1993). One way of managing the risk involved in this more fluent type of research is to require informed consent to be given at more than one point through process consenting (Munall 1988).

Meyer (1993) in her discussion on the ethical dilemmas in action research also points out the difficulties in ensuring anonymity. Although names are changed in a final report of an action research project it may be easy to locate the researcher in a specific research context given the time he or she has spent there. Insiders in the research location may easily identify participants by their roles and contributions without names having to be stated (Williamson and Prosser 2002a). Furthermore, ethical issues arise through the collaborative relationships a researcher builds up with participants in the field. Once the researcher is a friend or confidant of a participant it may be very hard for the latter to withdraw consent for their material (Meyer 1993). Meyer suggests that because important emotional relationships can be involved especially in participatory action research projects, the possibility for exploitation of research participants is actually greater.

Ethical issues may also arise with respect to the researcher and the potential for him or her to become over involved, exploited or exhausted through the demands of an action research project. Meyer (1993) suggests that the action researcher may need emotional support as well as academic mentoring to manage the stress of conducting an action research project. This is similar to an idea voiced by Behar (1996), an anthropologist who coined the phrase 'vulnerable observer' to describe the position of a researcher who is by necessity emotionally involved with his or her work.

4.11.3 Ethical issues in this research study

The following section discusses the ethical dilemmas encountered in this particular research study as well as ethical dilemmas, which were considered with respect to the project. I will

examine ways of managing ethical issues and report on practical steps taken to minimise risks. Ethical thinking from a range of areas is necessary for this study such as considering general research ethics, ethical issues of researching online and running an online advice or counselling service as well as ethical dilemmas in action research. The researcher has consulted and is complying with various ethical codes (Anthony and Jamieson 2005, Bond 2004), but thinks that 'professional morality' (Williamson 2001), a relational 'ethic of trust' (Bond 2006) and ongoing ethical mindfulness are more important for lived ethical practice than a blind application of ethical codes.

4.11.3.1 Ethical issues in this study

Informed consent is used throughout this project to ensure that participants are aware of the research project, the potential risks of taking part and their right to withdraw at any point. Clear information about the research project is published on Sex-and-Relationships alongside information about online counselling, ethical research issues, the report written for the PhD review panel and a link to the online research journal. A stepped approach has been chosen to gain informed consent. For survey data, which is completely anonymous and which contains only answers to closed questions and some short comments, a simple tick box system has been chosen as it is often used on the internet. Giving informed consent via a tick box fits well with the online environment and does not breach complete anonymity for participants. Should a participant not tick the informed consent statement on the first page of the online survey he or she automatically exits the survey.

With respect to the email advice service, clear instructions on how to use it and how this service contributes to the research are displayed on the introductory page for the service. Participants are advised not to write to us using their normal email addresses, but to set up a new, anonymous email account for this purpose only. We recommend that service users do not include any identifiable data in their emails such as full names or work email addresses. Additionally, the researcher has changed all names that service users use in their emails to safeguard the participants' identity even if they don't do so themselves (Haigh and Jones 2007). In the introduction to the email advice service it is also clearly stated that confidentiality cannot be assured for data in transit. The research and its purposes are described stating that people's queries are part of the data used for this study unless service users opt out. Although this strategy could be seen as informed consent by default rather

than choice, the researcher deemed this strategy to be less disruptive to the email advice service and acceptable due to the low level of risk involved in participating in the study given complete anonymity is the default position. Additionally, an email with a link to a feedback survey was sent out to users of the email advice service to ask for feedback, which users were notified of in my first reply to their query. The same procedure for informed consent was used as in the main data collection surveys, i.e. a tick box system. Participants ultimately had full control over how and to what extent they contributed data to the research process.

Another strand of data collection for this project involves my project partner Rod. We are close friends as well as colleagues working together on Sex-and-Relationships. Due to the dual nature of our relationship and our co-operation on this project gaining informed consent from him for his contributions to this project needed to be a much more in-depth and ongoing process. Munall (1988) suggests process contracting as a way of repeatedly asking for informed consent and this strategy was used with respect to Rod. At his request, his real name has been changed for this report. Additionally, Meyer's (1993) comments were kept in mind that it can be difficult for a research participant to withdraw consent once the researcher is also a confidant.

Bond (2006) suggests an 'ethic of trust' to deal with complex ethical challenges. *'An ethic of trust is defined as one that supports the development of reciprocal relationships of sufficient strength to withstand the relational challenges of difference and inequality and the existential challenges of risk and uncertainty.'* (Bond 2006: 77). Bond's (2006) 'ethic of trust' is a relational model of professional ethics, which emphasises personal integrity as well as the capacity of honest relationships to hold difficult issues. Therefore, with respect to Rod transparency and accessibility of all aspects of the research process were emphasised. This was facilitated through the publicly accessible online research journal and ongoing dialogue. Rod has been given the opportunity to read any document written for this research study, to comment on the validity of my findings and completing a 'member checking' (Kreuger 1994) process, as well as request changes in my reporting.

Another ethical dilemma in this study concerns appropriate self care for the researcher (Meyer 1993). General issues regarding workload and emotional support were often addressed in my exchange with Rod. Additionally, I considered whether I could possibly be

exposed to aggressive behaviour on the internet and the impact that my online work on this project could have on some of my regular offline clients who could easily come across the project online. After some deliberation I decided to use a synonym, Anna, for working on the site to provide some protection and distance for myself. However, the research study and the research journal are signed with my real name as it would be unethical with respect to the research participants for me to stay anonymous. I also disclose the University of Manchester as the academic organisation at which the PhD is being conducted and advise participants that they could email my supervisor or myself in case they have concerns about the research.

A final ethical issue, which I considered with respect to this research project, was the possibility that I as the researcher could encounter distressing information, which I felt morally obliged to act upon. Stern (2003) writes in-depth on this issue suggesting that 'distressing information' in this context meant a participant disclosing the intent to seriously harm themselves or another person. She examines the fact that researchers are not obliged by law to act, however, a legal precedence exists, which would make it necessary for a mental health professional to act given their specialist training. I therefore envisaged to act in accordance with my normal professional duties as a psychotherapist should I encounter distressing information in the course of my research. This means I would have to break confidentiality in case of child protection issues and in case of suggested serious harm to a participant or another person. Stern (2003) advises that it can be difficult to assess the real significance of statements people make on the web due to the missing context and suggests that there is a danger that a well-meaning researcher may overreact. She recommends simple interventions such as emailing a participant a contact number for the Samaritans should it seem called for.

4.11.3.2 Ethical issues for Sex-and-Relationships

As action research makes an intrinsic link between research and action I would like to mention ethical issues pertaining to the project itself. Without considering the ethical issues of the project any ethical considerations for the research study will be insufficient. The four ethical issues regarding the project, which I want to mention at this point is the generation of revenue by the project, ethical issues in running an online counselling service,

considerations regarding feminist ideas versus a respect for culture and an acknowledgement of the ecological impact of the project.

For Sex-and-Relationships to be completely independent and viable long-term it will have to generate some revenue to ensure Rod and I will have time to invest in the project in the years to come. Revenue can be created on the internet via advertising as in other offline contexts or via affiliate programmes, which means a website earns a commission for each item sold to a visitor who has clicked from our site to a sales site and purchased something. As with data collection who buys a product is completely anonymous and cannot be linked to identifiable individuals by the researcher. In no way are service users singled out or enticed to purchase a product and the commercial aspect of the site are not in the foreground of the web design or influence the text we write for the site.

In some respect the financial aspects of the project represent a similar ethical dilemma as do fees for a psychotherapist who charges clients for services rendered. Commercial interests can clash with providing a high quality service and it is important to be aware of potential tradeoffs and compromises made. One such compromise for this project would be between using explicit and suggestive images for advertisements compared to more neutral images and text, which are clearly identifiable as advertisements. I believe it is important to continuously re-examine the tensions between possible commercial interests and the objective of Sex-and-Relationships to offer a high quality and freely available service online. One way of negotiating the two has been to publish a clear advertising policy, which states that the authors do not endorse any particular product or service advertised on the site and which also states our general rationale for choosing products to be advertised via our site. Additionally, compromises between what could be seen as a commercial versus quality issues have been an ongoing topic in the dialogue about the project.

A further important area of ethical considerations concerns the provision of an online advice service. Online counselling and psychotherapy is still in its infancy and no clear professional practice has been adopted yet as best practice. However, some organisations have produced guidelines and ethical codes for working online such as the ISMHO (2000) and the BACP (Anthony and Jamieson 2005). As I have discussed online counselling and its ethical dimensions in my literature review I would simply like to state here that the online advice service for Sex-and-Relationships is being conducted in accordance with the

BACP guidelines and that the researcher has completed appropriate training to ensure she is aware of the professional issues involved in providing an online advice service. Additionally, she has continued to practice within the ethical and professional practice guidelines set by her offline psychotherapy organisation.

Another tension within the project has been between our clear political agenda to support the feminist principles of equality and empowerment for both sexes and a respect for cultural norms and practices on the other hand. Given that many cultures are currently endorsing patriarchy and do not offer women equal status either by law or within lived cultural traditions feminism and respect for diverse cultures often clash.

Rod and I have taken a very clear political position within this dilemma on the side of feminism. Although cultures do deserve respect and we want to be mindful of people's sensibilities, we do not want to collude with oppression be it culturally sanctioned or not. That this means we are more often challenging the limitations of women's roles within cultures than men's is coincidental. However, we are both aware of the fact that gender stereotypes and power differences oppress men as much as they oppress women albeit in different ways. We take the same stance for equality and anti-oppressive practice towards issues of sexual orientation and preferences aiming at making balanced information available to everybody and encouraging people to be open and responsible in their expression of sexuality. Sex-and-Relationships includes a clear statement about our political position on the home page. We are also willing to enter into a dialogue with service users about the political aspects of the project and we ourselves question our feminist outlook on a regular basis so as not to become dogmatic or rigid.

Finally, I would like to say a few words on the possible ecological aspects of this project. Having first trained as a biologist ecology is still very close to my heart. Although researchers are routinely questioning their ethical responsibilities towards fellow human beings, we hardly ever consider our ethical and moral obligations towards the planet as a whole. Given the impact humanity is currently having on all ecosystems due to global warming, ongoing pollution and the exploitation of natural resources to sustain and fuel a market economy in which 6.5 billion people are competing for what we in the West see as a normal standard of living, or just bare survival in many other parts of the world, not considering one's actions in respect to the impact they may have on our one and only planet

seems extremely short-sighted to me. Ethical consideration must also include the long-term impact ones actions may have beyond the immediate human environment of the researcher.

With respect to Sex-and-Relationships the main environmental concern is the amount of energy necessary to sustain it. Computers do need a considerable amount of electricity to operate, however, with locating the project solely online, not many other resources are needed to run the project. In this sense Sex-and-Relationships offers a huge benefit as it makes important information available globally without people needing to travel to a service. Additionally, we do not need to maintain premises or travel to work, which also reduces the energy resources needed to run our service. Most of the dialogue between project partners is conducted online and face to face meetings between us happen rarely and only when Rod's other obligations mean he is in Manchester. The researcher has been mindful about the use of paper and computer equipment in the research process.

Overall, Sex-and-Relationships hopes to contribute to humanity's adjustment to a more respectful interaction with its environment. We hope that better knowledge about sexuality and relationships will ultimately reduce human suffering through STDs, unwanted pregnancies or relationship break-ups and encourage people to be respectful and loving with each other as well as act with care towards their environment.

4.12 Reflexivity

Reflexivity is a fairly new concept within research. It has been necessitated by the increased self-consciousness of researchers working within a qualitative paradigm to account for their own position within the research and their potential impact on the research process. Today, reflexivity is often at the core of methodological thinking in qualitative research.

Seale (1999) discusses the history and development of reflexivity. He suggests that ethnographic reports were written as realist tales prior to the 1970s. The aim was to make the researcher invisible as a way of dealing with issues about researcher bias and researcher influence. With the rise of post-modern thinking in social science research this position became untenable. As a result researchers started to opt for a style of writing Seale (1999) calls 'confessional tales', which gave a description of how the field work developed. This

technique was aimed at increasing transparency about the process of field work and the context in which the data had been collected. However, Seale (1990) suggests that *'confession is a strategy for gaining authority rather than giving it away, and involves no departure from realist assumptions. Indeed, it constitutes a claim to authenticity'* (Seale 1999: 161). A similar strategy is still endorsed by many qualitative writers who suggest that qualitative research reports should include a full explanation of methodological procedures so that the reader can assess the validity of the research findings. This strategy is close to Lincoln and Guba's (1985) suggestion that researchers should keep an audit trail.

Subsequently, feminist researchers have argued for a much higher level of explicit self-awareness in the researcher suggesting that the researcher needs to disclose his or her own theoretical assumptions and biases and how they may have influenced the research findings. This strategy can be seen as another way of dealing with the crisis of authority in qualitative research as researchers acknowledge the full impact of post-modern thinking whilst still holding on to a wish for a single, authoritative narrative.

In post-modern approaches to research, the attempt to *'construct a defensible, rationally consistent meta-narrative is abandoned'* (Seale 1999: 169). Researchers may include multiple voices and interpretations within a research text as well as write in-depth about themselves and how they may have influenced the data they have collected.

There are many different versions within the qualitative research community of what constitutes reflexivity. Etherington (2004) suggests that reflexivity in research is similar to reflexivity in counselling or psychotherapy. She sees reflection as a mostly cognitive process contemplating one's thoughts, feelings and images in response to a certain situation, which is different from reflexivity. Etherington (2004) suggests that reflexivity is the capacity *'of the researcher to acknowledge how their own experiences and contexts inform the process and outcomes of inquiry'* (Etherington 2004b: 32).

Finlay (2002) gives a clear and succinct definition of reflexivity:

'Reflexivity can be defined as thoughtful, conscious self-awareness. Reflexive analysis in research encompasses continual evaluation of subjective responses, intersubjective dynamics, and the research process itself.' (Finlay 2002: 532)

Hertz (1997) suggest 'To be reflexive is to have an ongoing conversation about the experience while simultaneously living in the moment.' (Hertz 1997: viii). This seems to be a similar process, which Marshall describes as 'engaging with inner and outer arcs of attention' (Marshall 2001: 433). Finlay (2002) traces reflexivity back to its roots first with phenomenologists who see reflexivity as exploring ones own experience, whilst social constructionists emphasise reflexivity as a process of looking outwards to explore the dynamics of the researcher-researched relationships. Finally, reflexivity has also been influenced by psychodynamic theorists, who are interested in the contribution of unconscious processes and participative approaches, who see reflexivity as a mutual endeavour (Finlay 2002).

Reading: Text

Wednesday, November 1st, 2006

(...)

Stuff on reflexivity: 'Foregrounding' what is involved in 'world-making'. It is in a sense to research the research, to bend the research back on itself, to ask '*by what practices, strategies and devices is world-making achieved?*' By asking this question, the research act is made self-referential or reflexive. The postmodern approach needs researchers to be reflexive and to subject themselves, as 'knowledgers' to critical self-scrutiny.

(...)

part of a blog entry in response to reading Usher (1997)

Reflexivity allows the researcher not only to try and be aware of their impact upon the research process, but also acknowledge how the research sits within a wider political and cultural context. Reflexivity means accounting for the political implications and the potential ethical impact of a research project. Additionally, it provides the researcher with a space to become aware of how he or she constructs knowledge through the research process.

Reflexivity should not be an invitation for unlimited self-involvement for the researcher. Lather (1991) alludes to the potential for reflexivity to become a 'narcissistic exercise' and Finlay (2002) states '*... with reflexive analysis, the self is exploited only while to do so remains purposeful*' (Finlay 2002: 542). Pillow (2003) states that reflexivity needs to be a 'reflexivity of discomfort', a critical usage of reflexivity to expose the unsolvable, the missing data and the conflicting evidence involved in any research process.

Action research methodology invites a high level of reflexivity (Cohen et al 2000, Lees 2001, Marshall 2001, Torbert 2001) due to the full participation of the researcher in the research and a close attention to political and ethical implications of the research. Reflexivity can be seen as part of ongoing reconnaissance, i.e. fact finding and analysis (Elliott 1991).

Within this piece of research the provision of an audit trail (Lincoln and Guba 1985) and transparency about how knowledge is created are seen as a minimum standard of reflexivity. Additionally, the author sees reflexivity as described by Etherington (2004) as a use of the self of the researcher to inform the research process. My own reactions, feelings, beliefs, images and metaphors, which are triggered by the research process are valid and important contributions to answering the research questions. The process of using my sense of self in my work is also an integral part of my normal role as a psychotherapist (Wosket 1999) and my online advice work for this project. I really like Finlay's (2002) definition of reflexivity as it reminds me of attending to my inner process as well as my understanding of outer realities and how the two interact and impact the research process. Through my role and training as a psychotherapist I am especially aware of the potential contributions from the unconscious to the research process. As a woman, who is passionate about equality and freedom of choice, I have a special interest in the political dimensions of the project.

The author aims to achieve a high degree of reflexivity in this project through talking and dialogue, quiet self-reflection and most importantly through writing. 'Talking' in this project is embodied in the ongoing dialogue between the researcher and her project partner. This dialogue happens through emails, some phone calls and occasional face to face meetings. Our dialogue covers all parts of the project as well as the research and a lot of our personal lives, feelings and internal musings. It is an opportunity to negotiate the facts as we understand them, voice hypothesis, play with meanings, confront and support each other. From a pragmatic research point of view I hope that our dialogue increases the validity of my findings through an ongoing review of the collected data. Our dialogue encourages me to articulate my thoughts and test them against another person's understanding. We trigger each other to new ideas whilst hopefully challenging each other's ready made assumptions and exploring different meanings across the gender divide.

Additionally, other dialogues about the project include service users, the researcher's psychosexual supervisor, her partner, friends and other colleagues.

Another crucial source of reflexivity for this project entails writing. Hart and Bond (1995) suggest diary keeping can be useful for action research projects as it a) gives a chronology of the research process, b) forms a set of field notes and can be classified as data, c) can be a means of reflecting on one's thinking and performance, and d) can help to evaluate the overall process of the research project. My blog has proven itself an invaluable platform for practising reflexivity through writing. I experience writing *per se* as an activity, which encourages me to be reflexive. It means I have to articulate my own thoughts and feelings and make them explicit and bound up in words. I like to ponder words to really capture my felt knowledge. On the other hand, writing as in automatic writing can also be a tool to let oneself type whatever comes to mind without evaluating it in the moment. Therefore, writing is an excellent tool for me to access 'tacit knowledge' (Polanyi 1983) and to connect with meanings, which don't quite make sense to me yet. Writing has also helped me to practice a 'reflexivity of discomfort' (Pillow 2003) as it is a way of expressing my fears, doubts, lack of understanding and frustrations about the research process.

Finally, the term writing-as-analysis (Murray 2002) captures for me the integrating and meaning making power of writing (Braun and Clarke 2006). Reflexivity is happening as I am writing these lines. I experience writing about research as a big part of making sense of all of the project and the data. Whilst writing this report I am integrating all of my reading, my experiences and the data into a narrative. According to systemic thinking (Flood 2001) emergent features of the system may surface at this point, which can be captured in the writing process.

4.13 Positioning of the researcher within the research

The role of the researcher within a study is determined by the methodology chosen. Action research warrants the full involvement of the researcher in the research process. Not only does the researcher collect data through diverse methods such as surveys or ongoing dialogue with others, but her internal process also constitutes data. An action researcher needs to use all of her skills when attempting to implement action steps in the real world. It makes sense for the researcher to be in constant dialogue with herself and the demands of

the project oscillating between being a naïve collector of data as grounded theory suggests and the main research tool as in heuristic research (Elliott and Williams 2001, West 2001). Within psychotherapy the use of the psychotherapist's sense of self to assist the therapist in a process of exploration has a long-standing tradition (Wosket 1999). Within qualitative research similar ideas locate the researcher firmly within the research process (West 1998), especially within the feminist research tradition (Maguire 2001) and heuristic research (Moustakas 1990).

With respect to this study the researcher is fully embedded in the research process. I see myself as the main instrument for this study, meaning that all data is ultimately filtered through my sense of self. My reflexive process and my past experiences are important in the generation of meaning. Additionally, I am the main change agent for the action component and as such also intrinsic to the outcomes of this study.

Additionally, I see myself as a researcher-as-bricoleuse who needs to be able to use different research tools flexibly and be able to adapt her way of working to different research questions and situations. The idea of the researcher-as-bricoleur was first developed by Denzin and Lincoln (1994), who suggested that qualitative researchers needed to be able to develop their own unique way of using qualitative methods each time they enquired into phenomena. Their emphasis is on getting a job done rather than on purity of approach. Therefore, the researcher-as-bricoleur implies a pragmatic outlook towards research encouraging pluralism when selecting and using research methods. McLeod (2001) also emphasised the creativity and uniqueness of the qualitative research process, which should not be determined by a rigid adherence to rules, but needs to be grounded within the philosophical and interdisciplinary knowledge of the researcher. This view of the researcher closely matches the understanding of the researcher's role within action research both in its pragmatic outlook and its embracing of a wide variety of data collection and analysis strategies.

Finally, not only do I understand myself as the researcher firstly as a change agent who is fully included within the research process and secondly as a researcher-as-bricoleuse who needs to get a job done with whatever means are suitable and available, but thirdly also as a narrator. Research findings need to be communicated to be able to contribute to the wider community of researchers and practitioners. A narrative approach (McLeod 1997) lends

itself to the reporting of action research as it honours the internal coherence and chronological development of the emergent action research process. Therefore, as a researcher I also become a narrator whose responsibility it is to tell a story about the research in an engaging and meaningful way. By leaving the underlying structure of the research process intact through the medium of a 'story' I hope to give readers a greater insight into the situated generation of knowledge in this case thereby allowing for easier evaluation of the findings by readers and with it ultimately increased transferability of the results.

5.0 Results

5.1.1 Introduction to the results section

The following section presents the findings of my research into the development and running of Sex-and-Relationships over two years in a narrative format with the action research process and the data gathered in chronological order. I have structured the narrative into phases, which seemed to emerge naturally during the research process and which helped me to orientate myself as the project developed. Additionally, I include my reflections and analysis of the data as they arose at the time. Over the two-year period I also developed new action points, which I implemented and monitored within short, iterative action research cycles. Consecutive cycles continued to build on each other with respect to data collection, data analysis and implementation of new action points. I hope the following narrative will preserve some of the 'organic' and evolutionary feel of the action research process.

Table 2 on the following page summarises the individual phases, their time spans and the collected data to present an overview of the research phases and the collected data.

Phase 1 describes Sex-and-Relationships prior to January 2006 when my research started including my reflections prior to the research. Phase 2 describes a time period from January 2006 until the end of July 2006 during which I got to know my project and the research methodology. This phase is entitled 'Setting up data streams' as I focused on developing means to collect data about Sex-and-Relationships. Phase 3 lasted from August 2006 until the end of October 2006. During this time I focused on developing ways of working on the website and conducted a first web-based survey. From November 2006 until March 2007 in phase 4 my main focus was on writing content for the project and starting to develop Sex-and-Relationships more directly as well as enquire into issues around use of language via a second, web-based survey. Moreover, at the end of 2006 I analysed the email queries, which I received during 2006 including the entries of the feedback survey sent out to users of the email advice service.

Developing Sex-and-Relationships – Phases in the action research process		
Time Period	Action Research Phase	Data Collected
Prior to 2006	Phase 1: Sex-and-Relationships prior to the start of this study	Website status report
Jan 06 – July 06	Phase 2: Setting up data streams	Visitor numbers and site statistics Pilot of web-based survey Email dialogue between co-authors Blog
Aug 06 – Oct 06	Phase 3: Improving team work and procedures	Visitor numbers and site statistics 'Demographics' survey (n = 103) Email dialogue between co-authors Blog
Nov 06 – March 07	Phase 4: Writing for the website	Visitor numbers and site statistics 'Language' survey (n = 64) Email dialogue between co-authors Blog Sales figures recorded via CCBill
2006	'Hi Anna' 2006: The first year of our email advice service	Received 20 email queries in 2006 9 completed feedback surveys
April 07 – July 07	Phase 5: Data collection	Visitor numbers and site statistics, including 'bounce rate' 'Sex education' survey (n = 240) Email dialogue between co-authors Blog Sales figures recorded via CCBill
Aug 07 – Dec 07	Phase 6: External dialogue	Visitor numbers and site statistics, including 'bounce rate' 'Site usage' survey (n = 152) Email dialogue between co-authors Blog Sales figures recorded via CCBill Incoming links via Google Webmaster Tools
2007	'Hi Anna' 2007: The second year of our email advice service	Received 77 email queries in 2007 20 completed feedback surveys

Table 2: Phases in the development of Sex-and-Relationships and data collected

From April 2007 until July 2007 I became clearer about what kind of data I needed to develop Sex-and-Relationships further and therefore returned my interest to data collection and in particular, a survey enquiring into the levels of sex education of our visitors as well as planning a survey on how visitors engaged with the project. From August 2007 until the

end of 2007 my work on Sex-and-Relationships started to include much more dialogue with other colleagues and agencies and saw the completion of the site usage survey. Finally, at the end of 2007 I again analysed the email queries I received throughout that year as well as the feedback survey, which I sent out to users of the email advice service.

Throughout the research process reconnaissance, data collection, data analysis and interpretation and the development of new action points have been part of a fluent research process, which seemed to develop through its own momentum. I hope to capture some of this fluent and messy (Cook 1998) process through excerpts from my email dialogue with Rod and my reflexive blog. Additionally, I will intersperse screen shots of Sex-and-Relationships at various points in time as well as of the main online data collection tools I used.

After a presentation of the research process I will devote a section called 'Sex-and-Relationships – a two-year journey' (see chapter 5.3) to reporting on the collated demographic data from all of the self-selected surveys and the qualitative content analysis of the dialogue between project partners. To complete the results section I will briefly summarise the main, overall results of this research study.

Subsequently, I will discuss my findings in section 6 and link them back to the discussed literature. Additionally, I will suggest further action points for Sex-and-Relationships and review the general limitations of this study.

Finally, I will conclude this study by discussing what might be transferable to other contexts and review the need for further research. To conclude, I will reflect on how this research project has impacted me as the researcher.

To aid readability, I am presenting a preview of the main findings of this study in bullet point format below before moving on the main research narrative:

5.1.2 Overview of the main results of this study:

The development process of Sex-and-Relationships

- Sex-and-Relationships was developed into a successful service with 1,276 unique visitors on average per day in November 2007 through a practitioner-led approach.
- Measurements of 'bounce rate' show that only 60% of those daily visitors engaged with the site in more depth, i.e. by visiting more than 1 page suggesting that figures for visitor numbers alone are insufficient to measure site usage for online health projects.
- Feedback from a small sample of visitors through self-selected, web-based surveys was mostly positive and often suggested further improvements.
- Costs could be kept to £450 over the two years, which were covered through advertisements and sales. This brings developing online health promotion projects within reach of individual practitioners and small NGOs.
- The email advice service functioned as an ongoing information needs assessment for the development of the website and became an essential part of the project.
- The relationship between co-authors was found to be the most important feature supporting ongoing development. Dialogue constituted a principal process as well as an outcome of this study.
- The requirements of the online environment became an important determinant of the development process requiring continuous maintenance and development, which necessitate ongoing practitioner involvement for best online performance.

Data about visitors to Sex-and-Relationships

- Geographically most visitors, namely 50% accessed us from the USA, 6% from the UK and India respectively, 5.6% from China and 4.5% from Canada during the projects best performance in November 2007.
- Data from 559 entries to self-selected surveys show that 60% of participants were men compared to 39% women and 1% transgendered individuals. Only 11% of participants stated their age as below 19 years, suggesting that Sex-and-Relationships reached its target population of adults.
- The most accessed web pages on Sex-and-Relationships were the home page and the pages on sex positions and female sexual anatomy. This underlines the appropriateness of a sex-positive approach as visitors favoured pages on sexual wellbeing and development.

5.2 Developing Sex-and-Relationships

The following account of the research process may appear confusing and haphazard at first compared to the literature. If so, it will reflect the reality of stepping into a project, which has many diverse elements that all needed to be addressed. It is the nature of action research to work within messy and contradictory situations whilst our understanding of our professional practice and how to improve it only slowly becomes more coherent and logical. Different elements of practice, which this account will revisit again and again, are my relationship with Rod, how to best write content for an online health promotion project, how best to promote Sex-and-Relationships in its online environment and how to gain more data about Sex-and-Relationships.

5.2.1 Phase 1: Sex-and-Relationships prior to the start of the research

5.2.1.1 Description of Sex-and-Relationships in 2005

Sex-and-Relationships had existed in a rudimentary form since 2005. My colleague Rod and I first came up with the idea for the project as described in chapter 1.2 in the introduction. To document the project prior to the research I completed a 'website status report' in December 2005. This piece of writing already contained a critique of where the project was at the time including action points for further development. Additionally, I started a research journal at the end of May 2005 as I began talking to the University of Manchester about enrolling for a PhD.

To repeat, the main idea behind Sex-and-Relationships was that Rod and I would jointly write a website on sexual health, psychosexual issues and relationship skills based on our shared understanding of human psychology in a way that promoted individual decision making, respect and equality. We were planning to write the content of the website as two co-authors and to colour-code text on the site to distinguish between a male and a female voice. Rod would mainly be responsible for the technicalities involved in the project such as web editing, search engines, including pictures and the commercial aspects of the site, whilst I as the female co-author would focus on writing content and building up an online counselling service. The financial agreement behind our partnership was to split any profit earned from advertisement and small commissions gained through affiliate schemes equally

after the deduction of costs. Diagram eight, below, shows the size of Sex-and-Relationships prior to the research.

Diagram of Sex-and-Relationships in December 2005

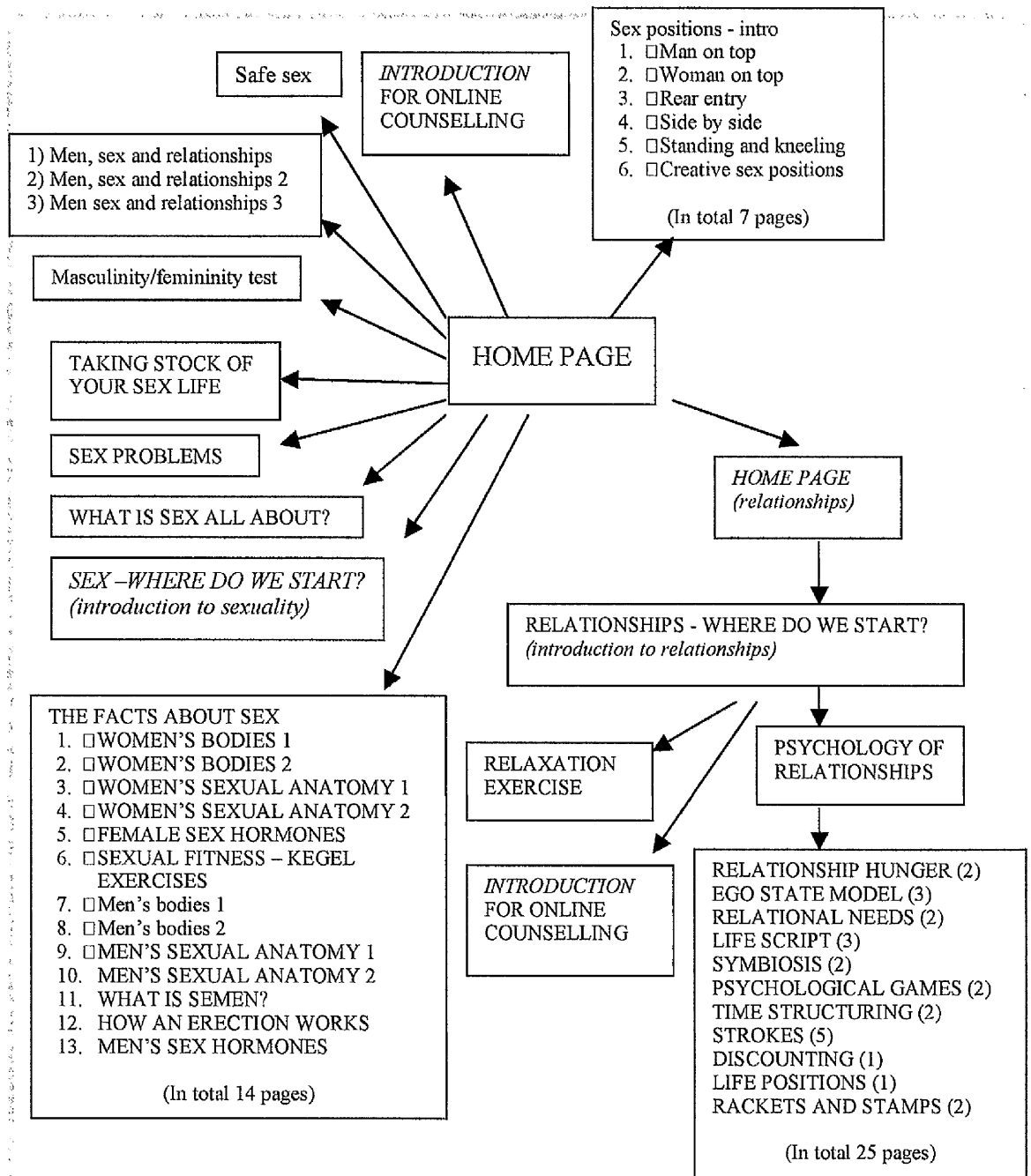


Diagram 8: Site map of Sex-and-Relationships prior to commencement of the research. Pages listed in upper and lower case written by Rod, pages listed in upper case written by Gudrun

In total, Sex-and-Relationships contained 62 pages in December 2005 accessible through a home page, which had links to other areas of the website and some introductory text about the project. The text on the home page stressed the importance of sex and relationships and encouraged people to talk about the issues involved. It mentioned our male/female partnership behind the website and the colour-coding of the text. I briefly introduced us as authors albeit with our respective synonyms and encouraged people to write to us. Diagram nine shows a screen shot of the top part of our original home page as it was in November 2005.

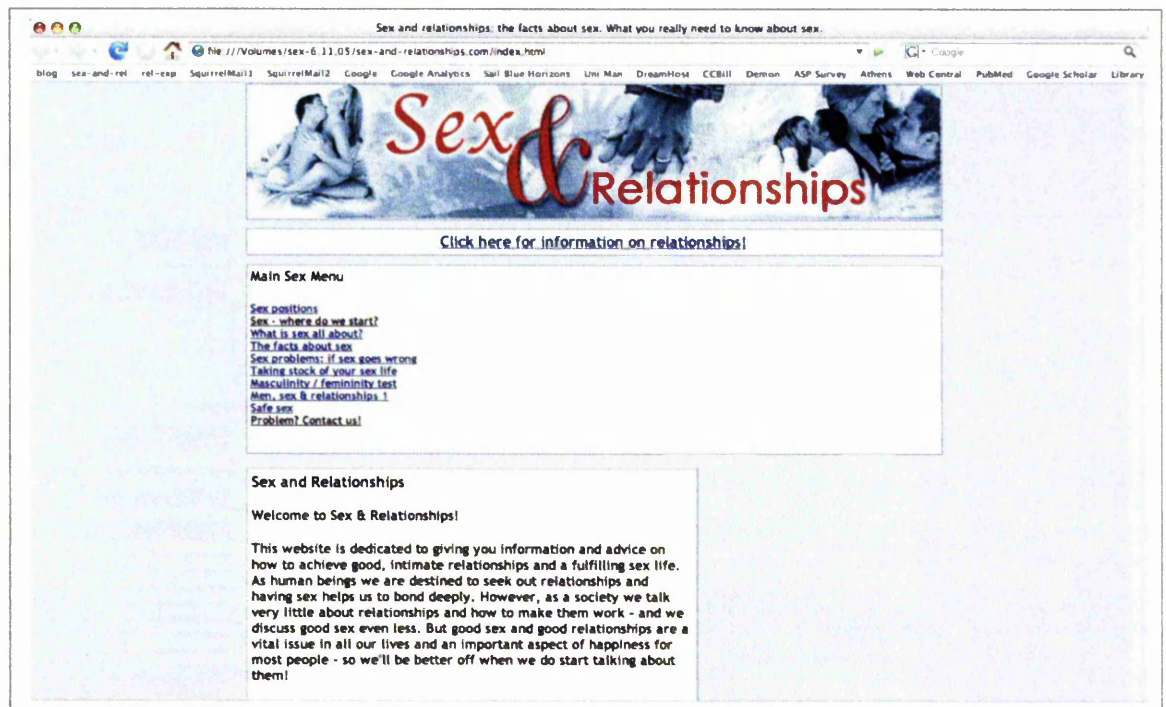


Diagram 9: Screen shot of the top part of the home page of Sex-and-Relationships taken on the 6.11.2005

The design used was very basic including simple boxes with a logo banner designed by a friend of Rod's. The colour scheme stayed with blue, white and red and the main navigation bar was a list of links below the logo banner.

5.2.1.2 Issues and reflections at the start of Sex-and-Relationships

The time prior to the commencement of the research seemed similar to the phase other action researchers may experience when negotiating access to their research site. Many of the themes, which later became very important, were already present at the start. The basic

design and graphic layout of the website became an early focus for my desire for action. Already in my website report from December 2005 I wrote that the text on our homepage seemed much too cumbersome to me and that we did not use the graphic potential of a website to best advantage. The more I looked at the design the more I disliked it, most of all the old-fashioned logo banner and the blue and white colour scheme. An important feature of the site was going to be our gendered male and female texts. Originally, we wanted to put the two voices side by side in two columns. However, in practical terms it was impossible to do so as our web design had to adapt to various screen widths and browser resolutions resulting in us not having enough width to accommodate two columns of text side by side. We therefore decided to identify our respective writing by starting paragraphs with 'he says' or 'she says'.

How and what to write was also an emerging issue. Prior to the research I approached writing content for the project like any other writing task, namely in a linear fashion. For example, the page 'sex --where do we start' was designed to set the scene for other pages on sexuality. However, on a website this is not necessary as people can simply click on any link they want and do not need to follow information in a linear fashion.

Additionally, I was concerned about finding the right pitch for my writing. Information had to be accurate, but it also had to be presented in an interesting and easy to read way. I tried to keep my sentences short and use humour as much as I could. I wanted to use explicit language, but not medicalise sexuality and especially not give out an underlying message that sex was not ok. I believed the way I wrote about sexuality and relationships, the language I used, and the explicit and implicit story I told were key elements of the website. I decided to include references for the sources I used at the bottom of each web page as a way of making my texts transparent and accountable. In general, my considerations for writing text were around accessibility in terms of language, sentence construction, use of clear terminology and humour to make it more engaging to read. However, I felt I did not have enough data from our visitors to check whether my strategy was actually working for our readers.

Another major theme, which emerged early on, was the level of explicitness of the pictures we included on our site. The web pages on sex positions featured the most explicit pictures and were the pages, which Rod and I talked about most. Because of their explicit nature,

they raised all sorts of questions: What story did we tell about sexuality? How did we feel about what we showed? The images we used on the sex positions pages originated from photo shoots Rod had commissioned for a couple's guide to sexuality featuring adult couples who were in long-term relationships with each other. Therefore, their production had been ethical, but featuring them on Sex-and-Relationships still felt risky and unsettling to us. Both Rod and I grappled with where our boundary was between informative, tasteful, honest, endorsing desire, adult and gratuitously pornographic.

I wanted to be clear, which 'story' I told about sexuality and how the images fitted into my chosen take on sexuality. As a psychotherapist I was keenly aware that the content and process of communication may not be communicating the same message, but could easily contradict each other as pointed out by Jackson and Scott (2004) and Frankham (2006). This issue was later confirmed to me through the work of Fine (1988) on discourses on sexuality in sex education materials.

The positioning of Sex-and-Relationships within the wider framework of the internet and our relationship to the search engines in particular was an important theme. One could say our main aim was to get into the top ten pages listed by Google when someone searched for the term 'sex'. This meant that in some way we had two audiences to write for, namely our visitors and Google as well as an academic audience for my research project. It was not clear to us at the beginning whether the requirements of different audiences could be reconciled and to what extent. As a low-cost project we did not want to pay Google. As mentioned in my literature review in section 2.1.1 figures given by Comscore (2008), an international commercial marketing organisation collecting internet statistics, suggest that in December 2007, 66.2 billion search queries were conducted worldwide of which 62.4% were conducted via Google sites. Clearly, if we wanted to reach a broad population of users with our project we needed to find a way to do well in Google.

Looking back, it is evident to me that my reflections about Sex-and-Relationships at this point in time were not built on real data and that it was hard for me to escape my own frame of reference. Because Sex-and-Relationships was not a physical location I could not directly observe what was happening with it. Sex-and-Relationships constituted a virtual 'location' which I could only observe through indirect means, namely the use of software programmes that monitored individual facets of what was happening on the website, but

never a complete picture. The real visitors, the users behind their computer screens remained hidden to me.

Main themes prior to the research
Design: Basic blue and white colour scheme, simple boxes for text, logo banner designed by amateur. No illustrative images and no integration between text and images. Overall the design is not engaging. Not enough space for arranging Rod's and my text side by side. We adopt a 'he said' and 'she said' approach to identify our respective writing.
Content: My approach to writing very linear; only few topics are covered up to now. Decision to include references for sources of our writing. Want to adopt a 'sex-positive' approach, attention to overt and covert messages in our writing.
Images: What level of explicitness is ok? Debate between what is too tabloid-esc and what is too medicalised. Where is the middle ground we are aiming for? Which images support a sex-positive approach?
Use of language: Warm tone using correct terminology, shorter sentences to aid readability, use of humour.
Online environment: To optimise our place within the online environment we need to achieve a high ranking position in Google.
Cost/sales: Annual web hosting fee of \$60.00, negligible income from the site at this point. Question about how to increase income from the site.
Online counselling: Only very basic invitation to write to Rod or Anna. We are debating what kind of service to develop and how. Discussions about ethical dilemmas.
Development process: Lack of clear data about the site as we do not have any way to observe what was happening on the site.
My position: Excitement and naivety

Table 3: Summary of main themes emerging prior to the start of the research

5.2.2 Phase 2: Setting up data streams

Between January 2006 and July 2006 my research started in earnest. During this phase I seemed to orientate myself with respect to what was required for the project, but also with respect to the research. Within action research methodology, it was a phase of reconnaissance (Elliott 1991). My focus was on learning more skills for the project, for example, I completed a six-module course in online counselling as well as learned the basic technological skills I needed to work on the project. Additionally, I read about research methodology.

With respect to my own personal process during this time I seemed to oscillate between the confidence of a beginner and feeling overwhelmed with the implications and demands of the research. My anxiety also surfaced with respect to technology. Although having set up my blog as my research journal in December 2005, I did not go back to it for weeks after a holiday abroad feeling overwhelmed by the (basic) technical skills required to edit it.

5.2.2.1 Design and technology issues

Developing a new graphic design for Sex-and-Relationships was at the forefront of our efforts during this time. The longer I looked at the website as it was, the more I disliked it. At the beginning of March we received 3 options for a design from a professional graphic designer. We easily decided on one design, which featured a brown and orange colour scheme and a prominent logo banner at the top.

The graphic designer had chosen copy-righted images for the logo banner, which we needed to exchange for our own images. Rod and I had lengthy discussions about which images to choose, namely should we choose more inclusive pictures, i.e. including a mixed-race couple or a homosexual couple. Rod thought that that would lose us viewers from the USA. In the end we decided to stick with very conventional images of white couples with the option of changing the banner in the future and allowing ourselves to be as controversial as we wanted to be within the text of the web pages. In other words, we decided to conform for now to how we perceived things were normally done on the 'front cover' of the website to possibly engage people more easily, but then to try and challenge stereotypical assumptions freely within individual web pages.

Although we had decided about the graphic layout by March, we then needed to engage somebody else to translate the graphic design into an html template for a website. We decided to choose a very basic web design package as a platform for our web designs, namely Microsoft's Frontpage. Although it only allows fairly simple web design, this was sufficient for our purpose and meant the technology involved in designing web pages was easier for both of us to use. Still, copying a graphic design onto a web page design was too difficult for either of us. Although we managed to get the required help from a friend without a fee we only received the new template by mid May.

One thing to consider about the web design was how fast it loaded. Skinner et al (2003) correctly pointed out that although access to the internet was by now widespread in the Western world, access did not always entail a fast and reliable connection. The more technically sophisticated a web page, the longer it takes to load. For the development of Sex-and-Relationships we wanted to stay with basic web programming to minimise load time so as to make our project as accessible as possible even via dial-up connections and with second-hand computer equipment.

With respect to the online environment of Sex-and-Relationships we were aware that what influenced ones positioning in Google were the amount of unique content displayed on a website, the more the better, the number of back links pointing towards a site and frequent small changes in a website which Google must assume to correlate to frequent updates of the information displayed on a website. Google calculates its search results via its secret algorithm called PageRank. Furthermore, Google is constantly developing and evolving its algorithm as a way of staying one step ahead of webmasters who are seeking to maximise their site's ranking. Therefore, ones ranking within the search results of Google must be seen as constantly in flux as its algorithm changes and ones own websites and other websites' relative position within the online environment change.

Back links function within Google like a peer review system in academic publishing. When a website links to another website Google assumes that the first website endorses the website it links to and treats this link as a sign of quality. The more important a website is, for example, if its URL includes '.ac' or '.gov' identifying it as an 'official' site, the more value its links have to other websites.

Different strategies can be used to create back links. One strategy is to create back links by writing small, snappy articles to be submitted to free article exchange websites or 'article banks' operating on the web, which include a link to one's website in its text. If people like the article, they will download it from the article bank for free and integrate it into their own material on the web hopefully including the link to one's website. Writing small articles for general distribution on the web therefore became our first strategy to create more incoming links to Sex-and-Relationships.

'So, one obvious problem now is - how does any site, starting from scratch, acquire enough links to show its popularity to Google, regardless of how good that site may actually be? With such great competition on almost every subject on the web, it's hard to know how any new site can ever compete with (a) those which are already established (b) those which have attracted hundreds or thousands of blog links' (From an Email by Rod 11.4.06)

With respect to basic running costs Sex-and-Relationships was and is hosted with an American company, which offered an unlimited amount of web domains to be hosted for \$100 per month with an unlimited amount of bandwidth. Sex-and-Relationships was one of 20 websites hosted within this package resulting in the basic running costs for Sex-and-Relationships to be calculated at \$60 per year or £32 at the current exchange rate (autumn 2008).

5.2.2.2 Setting up data collection procedures

One of the main issues I had to address at the beginning of my research was how to collect any kind of data about Sex-and-Relationships. It was easy to collect my email dialogue with Rod and my blog posts, but finding out what was happening on Sex-and-Relationships was a different matter. As mentioned in my literature review (see section 2.1.1) and data collection section in my methodology chapter (see section 4.7.1), gaining access to statistics of website usage is not as uncomplicated as the literature makes it out to be. I initially explored the potential to gain meaningful data from the server log files, but dismissed the possibility after recognising that it was impossible to track the downloading of individual web pages.

We subsequently decided to use a freely available service by Google to track website usage called Google Analytics⁶. Once subscribed to it one can embed a code into ones web pages, which allows Google Analytics to track individual visitors and collect information about some of their characteristics, such as geographical location, language that their browser is set to and whether they have visited ones website previously. Below is a screen shot of the current home page for the data of Sex-and-Relationships in Google Analytics.

⁶ URL: <http://www.google.com/analytics/>

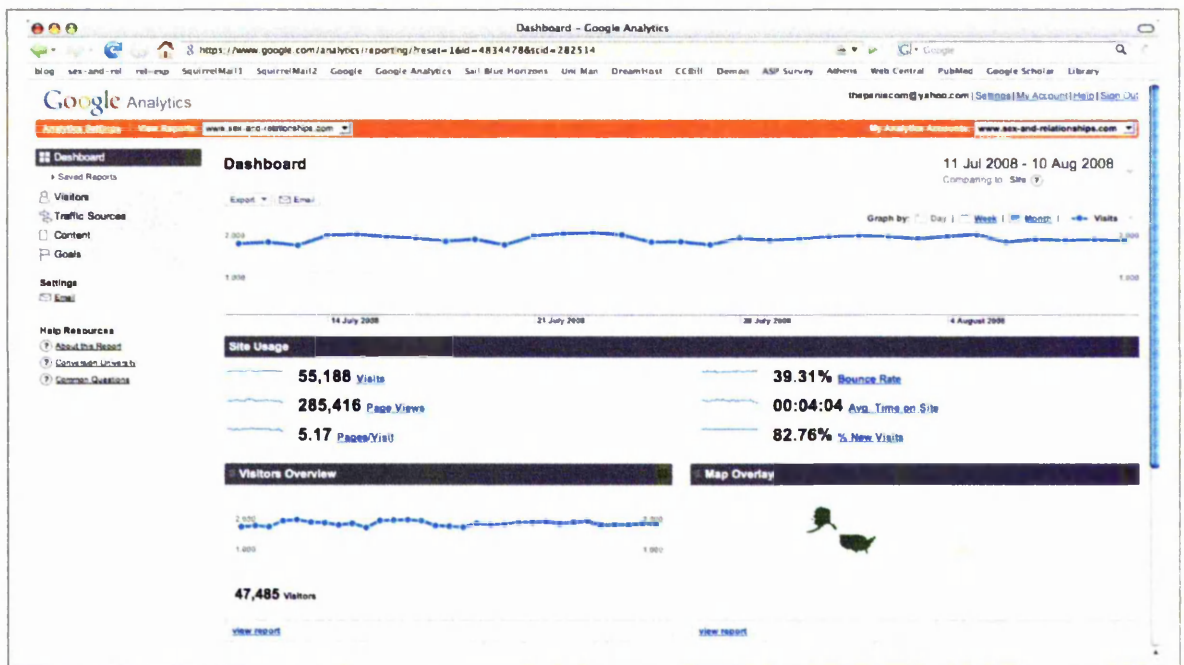


Diagram 10: Screen shot of the top half of the Google Analytics dash board for Sex-and-Relationships website statistics, taken on the 11.8.2008

Data, which I started to collect through Google Analytics on a weekly and later on a monthly basis from May 2006 onwards, were daily visitor numbers, percentage of new visitors compared to returning visitors, and the top ten countries from which visitors had accessed us.

Visitor numbers stayed fairly constant during May to July 2006 between 224 to 316 visitors per day averaged over each week. Our ratio of new visitors to returning visitors stayed very constant at 85% new visitors to 15% returning visitors showing that the majority of visitors to our website did not return. The top 4 countries from which visitors accessed us remained stable over the period with the USA being the country from which the majority of users, namely 60% accessed us. On second position was the UK with 10% of visitors, followed by Australia (5%), Canada (5%), India and Germany. Other countries, which ranked often under the top ten, were France, New Zealand, Malaysia, Japan, Singapore, the Republic of Korea and the Philippines. Roughly 10% of all visitors were listed as accessing our site from 'other' countries suggesting a very broad geographical spread of visitors.

Apart from general visitor numbers I also wanted to collect data from individual visitors to our project. A web-based survey offered a way of collecting data from a self-selected

sample of service users. The software package we used was ASP Survey Software⁷, which the University of Manchester subscribes to and which was free for me to use. For a general discussion on web-based surveys please see section 4.7.1 in my methodology chapter. The survey could be accessed via a link from the home page of Sex-and-Relationships, but only once per participant. All entries were completely anonymous even to the researcher. My first pilot survey asked for demographic data and for general comments about Sex-and-Relationships and was trialled mid May. Please see below for a screen shot of part of the second page of my first survey called 'Demographics' (see appendix 3).

Demographics 9.8.06 Survey

http://windev.humanities.manchester.ac.uk/surveys/TakeSurvey.asp?SurveyID=843707021oRG&Previo

blog sex-and-rel rel-exp SquirrelMail1 SquirrelMail2 Google Google Analytics Sail Blue Horizons Uni Man DreamHost CCBill Demon ASP Survey Athens Web Central

My Surveys Demographics 9.8.06 Survey

Demographics 9.8.06

Page 2 of 5

Basic statistics

2. What is your gender?⁷
Select at least 1 response and no more than 1 response.

☐ Male
☐ Female
☐ Transgender

3. How old are you?⁷
Select at least 1 response and no more than 1 response.

☐ below 16 years
☐ 16 - 19 years
☐ 20 - 29 years
☐ 30 - 39 years
☐ 40 - 49 years
☐ 50 years and above

4. What is your sexual orientation?⁷
Select at least 1 response and no more than 1 response.

☐ Homosexual
☐ Heterosexual
☐ Bisexual
☐ Other, please specify

5. What is your geographical location?⁷
Select at least 1 response and no more than 1 response.

☐ North America (US and Canada)
☐ Europe

Diagram 11: Screen shot of the top half of the second page of the 'demographics' survey showing the layout of the ASP survey software.

Finally, another option to collect data was discussed between Rod and I with regards to sales. At the moment we were assuming some sales existed, however, we were not able to monitor them separately from sales originating through Rod's other websites. I wanted to be clearer about how our site was doing with earning its keep and also felt that it could be very motivating for us to be able to see what was happening financially on a regular basis.

⁷ URL <http://windev.humanities.manchester.ac.uk/surveys/>

Additionally, the only data on real behavioural change in the offline world of our visitors, which we could potentially collect, were sales figures, i.e. the project had impacted a visitor enough to act and make a purchase. After some consideration Rod stated that it was indeed technically possible to monitor sales directly via a web-based accountancy software called CCBill. Setting it up required some in-depth technical knowledge and we therefore needed outside help with this.

To summarise, by the end of July 2006 I had set up a range of data collection methods to gain information about Sex-and-Relationships, namely website usage statistics via Google Analytics and web-based surveys collecting information from a self-selected sample of individual visitors to Sex-and-Relationships. Moreover, we were in the process of setting up CCBill as a way of monitoring commissions earned through the website. Additional data, which I was collecting to gain insight into the development process, were emails and notes on phone calls and meetings between Rod and myself, as well as my online research journal.

5.2.2.3 Setting up the online advice service during Spring 2006

Another concern of mine during this time period was learning about online counselling and setting up our own counselling service. I completed a six-module course from April till June with Online Counsellors⁸ whilst the first, sporadic email enquires arrived in January 2006. The course provided some interesting background reading, but also emphasised to me that online counselling was still an emerging field. I did not find easy solutions to issues around confidentiality, contracting with clients, or legal and ethical dilemmas (see section 2.1.5 for an in-depth discussion of online counselling).

Our options seemed to be to set up a 'professional' counselling service which needed to be able to assure confidentiality of data in transit and for which I needed to disclose my real name and qualifications, or to run a 'minimal' advice service suggesting that people wrote to us anonymously and which also allowed me to continue to use my synonym. The 'professional' version would entail considerable set up costs for a secure software platform, but could develop into a fee paying service if the demand was there whereas the 'minimal'

⁸ <http://www.onlinecounsellors.co.uk/>

version involved no further costs and much less work to set up. In the end, we decided for the 'minimal' version calling our email service an 'advice' service rather than a 'counselling' service. This meant that no further set up costs were incurred and we were able to run it as a low-threshold service, which only needed our own time and expertise to run. The 'contact page' as entry point to the service still needed considerable work as it only featured one sentence which invited people to write to us via our email addresses (anna@sex-and-relationships.com and rod@sex-and-relationships.com). At the beginning, giving advice online felt awkward to me and I was only slowly developing my skills for working online.

Email queries

Saturday, July 29th, 2006

I've up to now received 9 distinct email queries. 1 unfortunately got lost before I could answer it. Not loads by any means, but it is a start. I think it's to our disadvantage that we have no links to an official accrediting body or some other official endorsement, however, exactly who would give that around psychosexual issues unless you are a Government based health organisation I don't know. What is more unsettling to me is the fact that I send off my replies, but rarely get any replies or dialogue going. Quite often I don't want to go straight into the issue as I have so little information on the person behind the query and I need some more info to make a good judgment about what is needed. I normally ask more questions in my replies, but people have this tendency to not get back to me. Other internet based counsellors talk about that as the 'black hole'. You simply have no idea how your reply was received, what impact it had, or whether it even got there in the first place. I guess I am wondering whether I need to give all info straight away, just in case the person doesn't get back to me? What could I be doing that would improve dialogue? Maybe people don't ever expect to get a reply and are then really shocked when they do? Hopefully, I can get some answers to these questions as we develop the service. (...)

Finally, by the 10th of May our new design for Sex-and-Relationship had gone live on the net (see diagram 12). It featured a prominent logo banner to 'brand' the website and three columns. The left column was reserved for the main navigation bar for the content and the broad middle column contained the main text of each web page. The right hand column included the link (see diagram 12, 'relationships' in orange) between one part of the website which focused on sexuality and the other part which focused on relationships whilst the whole project was hosted under one domain or URL address. For the sexuality and the relationship parts of the project the navigation bar at the left hand side were different to give access to more in-depth information on sexuality and relationships respectively. Below the main link on the right hand side were links to administrative pages

such as the 'about us' page, the contact page for the email advice service, a link to my blog and information about the research project. Finally, the right hand column also included a link to the web-based surveys.



Diagram 12: Screen shot of the home page of Sex-and-Relationships with the new design, which went live in May 2006

Wow, this is soooo fabulous!
Wednesday, May 10th, 2006

I can't believe it, it's here, it's here, the new design, finally live on the web! And it looks great!!! (Well I think so anyway...) And Rod has hooked up my blog too, which is kind of exposing, but it's all coming together! I am quite proud really of what we have achieved so far and it's only the beginning. So much more to write, so much more to say, but the basics are here now. Please all you people out there, who read this, talk to us, it's much more fun doing this with you. We'll have to celebrate this tomorrow Rod!

5.2.2.4 Reflections on Sex-and-Relationships during Spring 2006

During January 2006 to July 2006 Rod and I exchanged 91 emails, had 8 phone calls and met 3 times. We had a lot to discuss about the practicalities of our project, however, the theme emerging as the most frequent category in the qualitative content analysis (Morgan 1993) in this time period was that of 'friendship' (54 instances). Other themes emerging from our dialogue were 'technology' (38 instances), 'update' (35 instances), 'design' (21 instances), 'blog' (14 instances) and three themes with 11 instances each, namely 'online advice', 'Google' and 'sales' (See appendix 2 for an overview of categories).

It seems that we were able to negotiate core issues of the project such as its design and learn new skills without a lot of direct contact. On average we exchanged 13 emails per month and had one phone call, as well as 3 meetings over the whole time period suggesting that it might be possible to establish an online health promotion project run by a team of two via online and telephone contact only. On the other hand, the analysis of themes clearly pointed towards the importance of our relationship above and beyond the project to enable us to work together successfully.

As Rod and I started to develop our working relationship as well as our friendship at the beginning of the project specific instances emerged between us, which are noteworthy. One issue which Rod pointed out to me was that through working together on this project we would inevitably find out a lot about each other's sexual lives simply by sharing what we did and did not know about sexuality, how we each wrote about it and what was important to each one of us. This emphasised to me the importance of our relationship and the trust between us as well as the potential for shame and exposure associated with sexuality.

Another issue, which surfaced between us, was that of power and ownership of Sex-and-Relationships. At this point in time Rod was the only one who could make changes to the website itself and I realised that this left me feeling uninvolved and slightly powerless. Our procedure was that I would email any text I wrote to Rod who would then fit it into the web page template and upload it to the internet as I didn't have the technical knowledge to make changes to the live site myself.

I think it might be the layout at the moment, but it might also be that when I see things I would like to change, I can't, because you are the one who is doing the technical side and I wouldn't know how to change stuff. It's possible that I therefore have a different sense of ownership....I do tend to concern myself more with all the stuff around it at the moment, like learning about online counselling. (Part of an email by Gudrun 31.3.06)

I started to realise that I wanted to be much more directly involved and that I needed to learn the technological skills to be able to edit Sex-and-Relationships myself. At the time, I thought this could be a similar process to women in general needing to find their own voice when it came to sexuality and relationships.

We resolved this issue once we had received the template for the new design. With minimal technological knowledge it was possible for me to write my own web pages within the web page template created for us in Microsoft Frontpage. Rod set up my lap top so I could easily upload pages to the live website. This required quite a bit of trust from his side as any changes I would make were immediately visible on the web. More importantly, the live version on the web became our 'master copy' of Sex-and-Relationships. Whenever one of us worked on any of the pages we always needed to download the most up to date version first from the web before making changes, a fact both of us forgot repeatedly over the following months resulting in some of our work having to be repeated.

Overall, the start of the project was a time of excitement and insecurity for me. I was keenly aware of what Suler described as the black hole effect (Suler 1997), an idea, which tries to capture the sense of uncertainty and not knowing when people do not reply to emails or other online communications. Not only did I not know what was going on for the users of the online advice service, but also with respect to the website itself. It was difficult to get data to find out what was happening on the website. I felt shut out from the real action on the website as well as from service users' lives. I was working very hard, but did not receive any feedback as to whether my efforts were welcome.

At the same time, I had a sense of feeling exposed myself. I felt very visible engaging in a project on sexuality online. Although I had hoped I could stay anonymous and keep my offline psychotherapy practice and my online research separate this was not how it worked out. When a new psychotherapy client told me she had googled my name and found my blog and with it Sex-and-Relationships I felt very flustered. In another instance of crossed

boundaries I received a spate of unpleasant comments on my blog, which I suspected originated from a former offline psychotherapy client of mine. I had made myself much more accessible as a psychotherapist through my online presence. In addition, I was keenly aware that I could also be seen to be stepping on to other psychotherapists' toes, as I was not qualified as a psychosexual psychotherapist. Was I really allowed to do this project? On the other hand both my psychosexual supervisor and my academic supervisor were very supportive and encouraging about the whole project. Their approval of the project as well as Rod's ongoing support were essential for me to continue with Sex-and-Relationships.

Main themes January 06 – July 06: Reconnaissance
Design: Decided on a graphic design, which needed to be programmed as a web page template. Colour scheme in warm brown and orange with a prominent logo banner to identify the site. Content all on one domain, but organised in two main sections on sexuality and relationship skills.
Images: Decided to use only images of white, heterosexual couples for the logo banner so as to be less controversial for a mainly Western audience. Decided to get more information on user's views to investigate the use of more inclusive images.
Technology: Decided to use Frontpage as a very basic web design software package, which was easy for us to learn and use. Decided to use simple programming for web page template to increase speed at which our home page could be loaded via different internet connections.
Online environment: Keeps constantly changing. Our first strategy to create back links was to write small articles with an embedded link to the project for free distribution via online article banks.
Data collection: Set up Google Analytics account to provide descriptive statistical data about Sex-and-Relationships. ASP survey software used for first survey collecting demographic data, setting up CCBill accountancy software to monitor revenue earned. Data from ongoing dialogue between Rod and myself and my reflective journal/blog.
Online counselling: Decided on an anonymous email advice service without the use of a dedicated (and expensive) software platform to create a low-threshold service. Contact page only contains a brief invitation to write to us with problems and suggestions.
Cost/sales: Annual web hosting fee \$60 (£32), 300 euros (£236) for graphic design, £150 for copy of Microsoft Frontpage, managed to get web page template and programming for CCBill for free. Negligible sales.
Development process: Reconnaissance. Setting up data collection mechanisms, developing the design, negotiating technological skills and ownership, developing the co-author relationship, writing content for the website.
My position: Learning new skills, feeling overwhelmed when faced with using new technology. Relationship with Rod is developing through negotiating processes, ownership and intimacy which results in more trust. I am experiencing a sense of exposure through being more visible online, insecurity because of the black hole effect and feeling shut out from the project.

Table 4: Summary of main themes January 2006 until July 2006

5.2.3 Phase 3: Improving team work and procedures

The time between August 2006 and October 2006 can best be described as a pilot phase.

Finally, we were receiving data through Google Analytics and the web-based survey as well as the email advice service, and we could start to plan further action based on real data rather than conjecture. Additionally, we explored our own procedures and ways of working

together including how we managed conflict and how to support each other through times when the project seemed to be at a stand still.

5.2.3.1 Data collected August 2006 till October 2006

Google Analytics continued to provide us with ongoing information about visitor numbers, which ranged from 325 to 220 visitors per day. Our ratio of new visitors to returning visitors shifted to 84% new visitors and 16% returning visitors towards the end of this time period, however, this may only be an apparent shift due to a slight fall in overall visitor numbers. The main countries from which visitors accessed us remained the USA, UK, Canada and Australia. On fifth and sixth position were India and Germany most weeks and the following countries appeared most frequently under the remaining top ten positions, namely Malaysia, New Zealand, Philippines and Japan. The only slight shift was that percentage wise the numbers of visitors from India was slowly increasing. Overall our figures for website usage collected through Google Analytics stayed the same.

Countries

Thursday, August 17th, 2006

Just got a full list of countries for all visitors for last week. It's really cool to see how diverse our viewers are. We had 35 people from India, 4 from the Northern Mariana Islands (wow! I have no idea where that is and I thought I was good on geography), 7 from Austria (good old home), 12 from China (now that's great!) and for example, 1 from Saint Vincent and the Grenadines. It's also interesting that with countries where we had only 1 person accessing the site, I got exact numbers for how many pages that person has accessed, for example for Azerbaijan 45 pages!? Do we even have that many [...] or Colombia, 22 pages, Panama 1 page. It's great! And would love to make material culturally accessible/appropriate for people. Probably an impossible job, but could start with keeping our English really simple.

At the end of October I closed the first web-based survey to finally gain data from individual visitors. The 'demographics' survey had been accessible to visitors from the 9.8.06 until the 28.10.06 through a link on the home page. The survey consisted of 5 page, firstly, an informed consent statement, secondly, a page asking for basic demographic data, thirdly, a page with 3 questions requesting information about what visitors where looking for on the site and, fourthly, a page with questions about accessibility and inclusivity through which I hoped to gain views on our pictures of white, heterosexual couples in the

logo banner. Finally, the fifth page of the survey contained a thank you message. Appendix 3 shows the survey questions in detail. 103 respondents clicked on the informed consent statement and completed the first page with questions regarding demographic data of the survey. The results of the demographics questions of each individual survey can be found in appendix 5 and a compilation of all the demographics data will be presented in section 5.3.

After the demographics page the survey checked whether respondents had visited Sex-and-Relationships previously. 14 respondents said yes (15%) and 77 respondents said no (85%) out of 91 entries to this question, which closely resemble figures for new and repeat visitors in Google Analytics.

When asked what people were looking for on our site we received 71 comments in the participant's own words. 26 suggested that respondents were looking for information about sexuality, only 5 of which suggested respondents had been looking for pornography. 5 respondents stated they were looking for information on relationships and 5 suggested they were looking for a combination of information on sexuality and relationships. 9 respondents stated that they had visited to look at writing about transactional analysis theory, the model of psychotherapy I had used to give relationship information. Furthermore, 19 respondents gave unspecific answers such as 'just looking' or 'nothing in particular'.

The 30 comments left for us in the generic comments box were all positive, although it must be assumed that the sample is highly biased towards people with a positive response to Sex-and-Relationships as people with a negative response might be less likely to complete the survey. Additionally, we received some tips on how to improve the site and some stated that they hadn't had a look at Sex-and-Relationships yet and could therefore give no feedback. To give a flavour of the comments the following lists reproduces the first 15 comments as they were typed in:

1. Like it
2. good ,it is nice every data is available under one roof
3. Little to tell as I've seen little of it yet though it doesn't appear to fulfill my previous response.
4. I find it interesting and informative.

5. Keep up the good work. Please don't make us pay for this site. It will just be frustrating.
6. i am a new visitor, can't comment yet.
7. It is informative and a little overwhelming... a result of my own resistance to learning and acknowledging a problem in my relationship.
8. Intersting. Helpful. What a relief that it's not trying to sell me anything.
9. I enjoyed the pictures at the top as well as the information and how it was presented.
10. I think it seems professional and informative
11. informative
12. well-organized, intelligent, citations
13. More howtos on getting closer to your friends and acquaintances.
14. I think it seems very informative from the small amount I have seen.
15. looks interesting

When we asked whether respondents thought that pictures of only white heterosexual couples in the logo banner were appropriate, 85 respondents answered in total of which 45 responded with 'yes' (53%) and 40 (47%) said 'no'. This result seemed to confirm our fears that pictures of racially mixed couples or homosexual couples could result in Sex-and-Relationships offending a considerable number of our visitors. However, to the next question, which was 'Do you think it would improve this website if we would include pictures of non-white couples?' 63 stated 'yes' (74%) and 22 (26%) said 'no'. These conflicting results could be due to badly worded survey questions or could show ambivalence in respondents. After discussing the conflicting results with Rod we decided to interpret them in favour of including a picture of a black couple in the logo banner. Our subsequent question was: 'Would you like to see more content on homo- or bisexual sex and relationships?' Out of 85 respondents 49 (58%) said 'yes' and 36 (42%) said 'no'. Finally, we received 28 comments on accessibility all of which were supportive of inclusivity, but two specifically stated that the website should not be accessible to people under 18.

Overall, the first data gained through a web-based survey suggested that Sex-and-Relationships was being accessed mostly by its target population of adults over 20 years of age as 89% of respondents of the survey identified themselves as aged over 20. Men and women were represented equally well and we had a sizable proportion of visitors, namely 22%, who identified themselves as non-heterosexual. Our visitors were geographically wide spread, although the majority of visitors located themselves in North America. We received a lot of positive feedback about the site and most participants stated that they

wanted to find information about sexuality and sexual relationships. However, this cannot be taken as a representative assessment of the information needs of all our visitors, as the survey was only completed by a small, self-selected sample of visitors.

Throughout August till October 2006 my dialogue with Rod reflected how our priorities stayed the same in some areas and slowly shifted in others. Friendship was still the most frequent theme (44 instances), with updates (19 instances) and technology (15 instances) also continuing to be important. We had few exchanges about design (5) as we had already settled into the new look for Sex-and-Relationships. New themes started to appear in our conversation such as writing for our project (6) and discussions about data (9).

5.2.3.2 Issues in the development of Sex-and-Relationships during Summer 2006

Whilst having gained some mechanisms to collect data through Sex-and-Relationships we still had no clear data about sales and no way of counting the number of back links pointing to our site. As Rod had identified back links as an important measure for Google I wanted to find out how many links to our website existed and how this number might change over time. Our first attempt was to use Yahoo to measure all external incoming links to Sex-and-Relationships. However, by mid August Yahoo had changed its mechanism for calculating link counts resulting suddenly in a completely different number. It was confusing and frustrating to be faced with the ever fluid nature of the internet and we continued to look for a more reliable way of measuring links.

Google was another constantly changing part of the online environment for Sex-and-Relationships. Whilst we sometimes seemed to be favoured by the search results any gains were equally quickly lost. We were aware that Google was at that time piloting extensive changes to its algorithm resulting in ongoing and far reaching changes in search results.

5.2.3.3 Developing our online advice service

One focus of my work during this period was the online advice service. I improved the contact page for the online advice service to give clearer information to participants about how to use the service and how to ensure privacy of their data whilst doing so.

Additionally, I checked with my professional insurance that it covered any matters arising out of my online work.

email advice

Saturday, September 30th, 2006

Just wondering about my email advice. It's so strange to not have all the data one gets from a person when you meet them. I can feel all the uncertainty that is in trying to give good information to someone you have had only one email from. How could you ever judge their situation correctly? Maybe one develops a sixth sense about what to say. Maybe there should be courses in how to be an agony aunt. This way of working is more like that than anything I have been trained for.

At the beginning of October I received an email from a woman in India, Shimla, who was in a state of crisis after having been sexually assaulted by a relative. This case forced me to consider issues about professionalism for the service such as giving clear direction to her about confidentiality, turn over time and boundaries of the service I offered. I was keenly aware that I wanted to support Shimla and that she did not seem to have any other safe and confidential support in her life at the time. As our dialogue developed into a deeper, therapeutic exchange I felt it necessary to give her my real name, so that she could check my credentials online via other independent websites.

Have started a more intense therapeutic dialogue with Shimla. Thoughts about how to be ethical in this are now at the forefront. I have told her my real name and given her the Centre and the ITA website (i.e. my professional psychotherapy association) so she can check up on me. I think it is really important with this that I have an independent web presence so people can check who I am as much as possible over the internet. (From my reflective journal dated 8.10.06)

Getting a good dialogue going with Shimla. I just hope I can be of some help to her. I am also worrying I might be telling her what to do when actually I don't know enough how things work culturally. On the other hand, protection seems the most important thing for her right now and if she does tell her husband and it means she can't look after her girl, than that is no good. (From my reflective journal dated 9.10.06)

My dialogue with Shimla developed well despite my fears about the medium and our contact seemed to help her to get grounded again and keep herself and her daughter safe. It showed me some of the power of cross-cultural and online counselling as Shimla had not felt safe in confiding in anybody around her in case her confidence was broken, but she was able to take on board my support.

Another event, which impinged on my dialogue with Shimla was that a week after her first email to me my internet router at home stopped working and I could not access the internet. Additionally, Rod was on holiday, which meant that I could not ask him to post a note on my blog or access my Sex-and-Relationships email account to let Shimla know I could not respond to her at the moment. With psychotherapy it is paramount to be reliable and available and for me this also applied to my online advice work. I did not want to expose Shimla to the black hole effect by not responding to her on time, which meant that I had to access my email account from an internet café.

Whilst at the internet café I struggled to access my blog as well as Sex-and-Relationships presumably because both sites were blocked through a cybernanny programme. Only from specific computers was I able to access our website leaving me to wonder how many public internet access points blocked Sex-and-Relationships due to its explicit content.

Shimla and I exchanged 16 emails in 2006 and my support seemed to help her in reducing her anxiety and making appropriate choices for herself. She wrote to me again twice in 2007 to let me know that she was well and enjoying life with her husband and daughter.

My exchange with Shimla really encouraged my belief in the usefulness of online advice and its ability to cross cultural boundaries successfully. By being removed from the immediate social and cultural context I was able to become for Shimla what she needed at the time without needing to fear judgement. Shimla suggested to me that she was not willing to take anybody in her own immediate vicinity into her confidences as she feared people would talk about what had happened to her, which could result in the end of her marriage. In her case online support may have been especially suitable due to its anonymity and confidentiality as well as its freedom from cultural expectations (Ma 1996).

5.2.3.4 Reflections on Sex-and-Relationships during Summer 2006

Overall, my initial enthusiasm for Sex-and-Relationships was dampened more and more by the demands of the project. Additionally, I felt that visitors remained invisible to me and with it any impact Sex-and-Relationships might be having on their lives. Therefore, work on the project seemed at times pointless. Having daily access to visitor numbers via

Google Analytics meant that I started to feel disheartened about any slight fall in visitor numbers. Additionally, the online environment around Sex-and-Relationships continued to change, most notably through ongoing algorithm changes in Google, suggesting that any progress we made could easily be lost again. Furthermore, sales continued to be negligible.

Before analysing the comments participants left to the demographics survey the only positive feedback I received about my work on the site was through the occasional email query and my ongoing dialogue with Rod. Despite the ever changing and ephemeral quality of the internet it seemed impenetrable and unyielding to me. Although the PhD imposed a further set of demands on me during this time, it also meant that there was one clear incentive for me to continue working on Sex-and-Relationships even if the uptake of the service itself did not improve.

During this time I also started to focus more on writing content for Sex-and-Relationships. Rod and I repeatedly discussed what might be the right pitch for our content, i.e. more simplistic and tabloid-esc or a more in-depth style. The 'right pitch' related firstly to the readability of our texts with respect to vocabulary and sentence construction, but also to the complexity of issues to be explored. This led to us deciding we needed to find out more about our visitors in terms of their English language skills and levels of sex education. Therefore, we decided to include questions about language and levels of sex education in subsequent surveys.

Another consideration about our texts was how to write in a way that was inclusive of different sexual orientations. I decided to keep all texts open in terms of the assumed sex of a partner by always mentioning 'he or she'. My intention was that anybody should feel accounted for by the wording no matter what the sex of their partner was. This strategy was my way of avoiding the 'specialised' pages on lesbian and gay issues under the 'homosexual disclaimer' (Whitlock and DiLapi 1983), which reinforces the 'othering' and marginalisation of non-heterosexual orientations.

Rod says:

October 29th, 2006

'The issue of simplistic text and simplistic content is not an easy one to deal with. Much of the broad public face of the internet is exactly that - simplistic. The dumbing down factor is strong, and hard to resist. People in general prefer simple, straightforward ideas presented in simple text. The success of tabloid-esque websites is ample proof of that.'

Gudrun says:

October 29th, 2006

I agree on some level completely with the 'Attention is the most important commodity in cyberspace' and therefore we need to adapt our level of text to people potentially being rather short with their attention span. I guess it disagrees with me as when I look for stuff on the web, it's really frustrating for me to just find short snippets of text, but nothing like the depth of info I am looking for. I hate that. Maybe that reflects on my inability to search for stuff properly, but I don't think that can be it.

Rod says:

October 29th, 2006

I have a simple approach here. We don't compromise. We can present useful information in middle brow language that is intelligent and informative. Let whoever wants it, come, take it and make use of it.

My blog became an invaluable tool to me during this time. I continued to read about diverse fields such as research methodology, psychosexual psychotherapy and the internet making it difficult for me to organise my thoughts. The whole project seemed to develop at all fronts simultaneously in accordance with emails that arrived, Rod's input, our dialogue and my own thinking. Blogging became a way to organise this chaos by entrusting the information to my online journal, which allowed me to categorise posts and store information in an easily retrievable way.

I love my blog

Tuesday, October 31st, 2006

More reading, which brought me to how absolutely damn grateful I am to have this blog! It's the one consistent story, where I can pour all my bits and pieces of thinking into and it stores and sorts them for me. It means I don't have to try and hold it all in my head, but simply entrust it to the blog, feeling confident I will find snippets of reading again easily via categories and a search facility. It's like I write down thousands of words of jumbled up thinking and when the time comes for writing it up into a coherent whole I can re-order my posts and voila meaning is created out of chaos. (...) even if my house burns down tomorrow it will still be there and it gives me the option of having others read what's inside my head and talk to me about it. And it gets me writing, starting to formulate my own ideas.

It's really important for me to write as a way of really letting myself know what I know.

From an email by Gudrun, 3.10.06:

Finally, I am also getting a sense of my transference in response to the project. I am so damn self sufficient that I always think nothing happens when I am not doing it personally. So part of me was expecting for you to say you had done nothing and you didn't know what was happening with it. It's part of my 'you can't trust anyone to be there for you or to do a proper job'. You always pleasantly surprise me Rod and it's just lovely to be doing this with you! I guess we both know each other's limitations about how much time we can invest, but I am really glad that you are investing what you can into the project and that it is important to you. Thanks!

From an email by Rod, 4.10.06

Hi there. Thanks for the email, and especially for the last paragraph. It clears up some stuff that had been nagging around in the back of my head that I had never stopped long enough to think about. Both in my sensing that stuff in you, and interestingly enough in my own feelings too in response to some subliminal belief (dismissed intellectually but still there emotionally) about how nothing gets done unless I do it!!! So no wonder I felt a surge of pleasure to be doing this with you yesterday when we were talking.....it all makes perfect sense now. And it reminds me how important it is to me to have these connections with you and others.

Main themes August till October 06: Piloting Sex-and-Relationships
Design: Mostly completed, but questions remain about the images we use in the logo banner as results from the survey are contradictory.
Content: Discussion about how we 'pitch' our content in terms of simplicity or detail. We question who we write for, our invisible visitors or ourselves? In the end we decide to write for 'ourselves', i.e. aim for the type of detailed content we would like to find ourselves on the internet. Decision to use inclusive language to account for partners of either sex.
Online environment: Ongoing algorithm changes in Google.
Data collection: Google Analytics records between 220 to 325 visitors per day. 103 self-selected respondents complete our first web-based survey. CCBill accountancy software is still being set up. Using a Yahoo search as a measure for back links.
Online advice: Development of contact page and procedures behind the email advice service, starting to develop my own practice as an online counsellor. Work with Shimla shows online counselling is feasible via Sex-and-Relationships. It involves an ongoing relationship and requires clear procedures analogous to an offline setting.
Cost/sales: No further costs, sales negligible.
Development process: Sense of consolidation and the project gaining a clear identity. My relationship with Rod becomes more supportive and closer as we negotiate disagreements.
My position: The ephemeral internet stays unyielding as my work does not seem to make a visible impact on visitor numbers. Blogging becomes an invaluable tool to hold and organise information and tasks.

Table 5: Summary of main themes emerging August 2006 until October 2006

5.2.4 Phase 4: Writing for the website

During the months of November 2006 and March 2007 the focus of the project was firmly set on action to develop Sex-and-Relationships according to the consensus Rod and I had developed in the previous months. Most of our data collection methods were in place and our procedures for working together became efficient and well used. Changes, which had been in progress, were finally completed. Our sales monitor through CCBill went live in December 2006 and we amended our logo banner to include a photo of a black couple.

5.2.4.1 Data collected between November 2006 and March 2007

Our visitor numbers did not improve significantly during this time period. I started to record and analyse Google Analytics figures from November 2006 onwards on a monthly basis rather than weekly. Visitor numbers ranged between 272 to 400 visitors per day on average. The locations from which visitors accessed us remained the same with 50-60% of visitors accessing us from the USA, around 6% from the UK followed by Canada, India, Australia and Germany.

The ratio between new visitors and returning visitors stayed also very stable with 19% returning visitors and 81% new visitors on average over the 5 month period. The top 5 most frequently accessed pages on Sex-and-Relationships were always from our sex positions pages, which contained most of the explicit images on our site. This seemed to suggest that either visitors were looking for pornography when accessing the site or that visitors were interested in sexual health and emotional skills in relationships, but had a 'sex-positive' agenda (Bay-Cheng 2001), i.e. were interested in sexual and relationship development.

Another measure in Google Analytics, which I considered was the list of the top 5 referrers to Sex-and-Relationships to be able to pinpoint how visitors most frequently found our project. In November 2006 most visitors accessed us through Google image search via our explicit images (73.68%) and only 15.48% through msn and 6.47% through Google. By March 2007 the figures had shifted considerably. Our main referrer was Google with 30.06%, followed by a diverse category of 'other' with 24.53% and Yahoo with 19%. Referrals from Google image search had fallen to 11.57% and referrals from msn were at 10.55%. Clearly, Sex-and-Relationships was evolving within its online environment even though this continuous shift was not increasing visitor numbers. The number of back links Yahoo counted for Sex-and-Relationships continued to grow to 194 in March 2007.

During December 2006 our sales monitor through CCBill finally started to collect information counting 12 sales during December 06, 15 during January and 17 in February 2007. Although the financial gain through each sale was very small, namely around £5 per sale, the sales figures started to give us another, separate figure for the impact of Sex-and-Relationships. Although online sales figures are often assumed to be simply linked with visitor numbers, there was no correlation between the two measures for Sex-and-

Relationships. We started to look at sales figures as one measure of overall effectiveness of Sex-and-Relationships. Here we were able to get a figure for actual behaviour change generated by our project, although of course buying a guide to more in-depth information on a sexual health topic does not necessarily mean putting the behaviours recommended in the guide into action. However, sales figures were useful to us as comparative measures of our overall performance, which sparked off ideas for improvements. Additionally, even the small number of sales provided us with some incentive to continue our work on Sex-and-Relationships and covered our expenses.

The web-based survey, which was open to visitors during this time period, included the same demographics questions and a new section with questions around our use of English. The 'language survey' was open from the 28.10.06 until the 23.3.07 and both the informed consent statement and the demographics page were completed by 64 self-selected respondents whilst the following page on language was completed by 55 respondents who gave us further data as to their native language and the language their internet browser software was set to. The results are displayed in diagram 17 below. The data from the demographics section of this survey can be found in appendix 5.

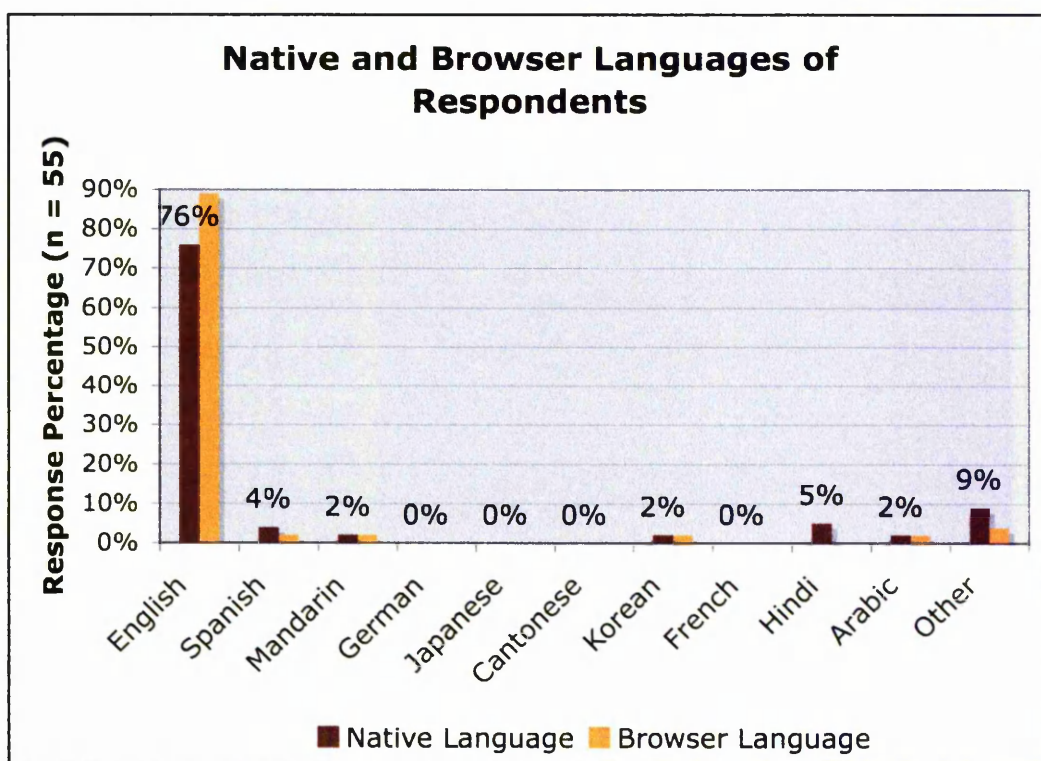


Diagram 13: Data showing native language of respondents and language their internet browser was set to (n = 55). Percentages shown are for percentage of native language only.

English is clearly the main language used by most respondents. 76% identified English as their native language and an even higher percentage, namely 89% had their browser set to operate in English. Other languages indicated as native languages were Polish (2 instances), Malayalem (1 instance), which is a language spoken predominantly in the state of Kerala in southern India, Tamil (1 instance), another Dravidian language and one of the 23 official languages spoken in India, and Ibo (1 instance), which is a language spoken in Nigeria by around 18 million people.

Our next questions related to people's comprehension of our website texts. Question 8 asked people to rate their grasp of English with the use of 4 categories. 7% rated their grasp of English as 'basic', 13% ticked 'medium', 18% ticked 'quite good' and 62% ticked 'excellent'. Given that 76% stated that their native language was English even the native English speakers did not always rate their use of English as excellent. On the other hand, of the 24%, who stated that English was not their first language at least some must have rated their level of English as 'quite good' or above.

When asked how easy or difficult it was for participants to understand the English we used for our texts 89% stated 'easy', 7% stated 'sometimes difficult' and 4% stated 'all quite difficult'. On the one hand, this result is encouraging as it suggests that our English is easily accessible to most people (89%) who completed the survey. Nevertheless, some people (11%) indicated that they struggled to comprehend our texts. Additionally, this result is biased towards people who self-selected for our survey and who must be assumed to have a better grasp of English compared to all potential visitors to our website. It is likely that some of the people who would not rate our texts as easily accessible did not opt for filling in a survey in English or had dropped out of completing the survey early.

Finally, we asked two questions about making our use of language more accessible to readers. The first one asked whether participants thought that our texts would be easier for them to understand if we would use a more basic vocabulary. 33% ticked 'yes' and 67% ticked 'no'. This showed that roughly 2/3 of respondents found our use of vocabulary accessible, whilst 1/3 would have liked to see a more basic vocabulary used. I believe this result becomes more difficult to interpret as a more basic vocabulary does not necessarily equate with ease of readability for non-native speakers. For example, correct medical terminology, which is often based on ancient Greek or Latin, is often the same in all Indo-European languages and may therefore be more readily accessible to a non-native speaker of higher educational background than to a native speaker with less education.

Our next question related to length of sentences asking 'Do you think our text would be easier for you to understand if we would use shorter sentences?' 45% ticked 'yes' and 55% ticked 'no'. Although the majority indicated that our use of sentence construction was fine for them, a large amount of people suggested with their answer that we could improve our texts by shortening our sentences. This was an action point I immediately took forward when writing content for Sex-and-Relationships. Additionally, an idea for a glossary of terms came out of our discussion of the results of this survey and previous work by Marton (2000).

Additional data during Winter 2006/07 was also collected through my ongoing dialogue with Rod. Between November 2006 and the end of March 2007 we exchanged 94 emails, made 9 phone calls to each other and met once. The theme of friendship dominates our

dialogue even stronger over these 5 months (60 instances). Other major themes were update (27 instances), jobs (25 instances), technology (17), sales (16), reflections (13) and data (11). Our dialogue got emotionally warmer as our relationship developed through working together. We seemed focused on translating our previous thinking into action as we discussed updates and jobs. Ongoing feedback started to be provided by the project itself and we debated new data and reflected on our learning from Sex-and-Relationships.

5.2.4.2 Issues in the development of Sex-and-Relationships during Winter 2006/07

As mentioned, this time period was one of action for Sex-and-Relationships. My main focus was on writing content for the project, which I had found very difficult to do consistently. In my discussions with Rod it became clear that not only did we need more content for our visitors, but that a continuous stream of new content would also improve our ranking in Google. We agreed that I should aim at producing one additional web page for Sex-and-Relationships every 2 weeks, which would be manageable for me as well as provide enough new material to optimise the performance of Sex-and-Relationships online.

Ongoing jobs

Friday, January 12th, 2007

(...)

Otherwise, I have decided to aim for 1 page of content per fortnight to make [it] a bit more realistic for me to actually manage the writing. I think writing content for the site is certainly my weakest point in the whole project, everything else including the PhD is doing well. I want to think and reflect a bit more why the writing is such an issue. Somehow I need more peace for it on the inside and with everything I am doing, I avoid sitting down and pushing myself with it. Would be great to find some solution for my procrastination.

Writing one page of content every two weeks became a guideline for me, which helped me to challenge my earlier sense of reticence and tendency to prioritise other work. It also meant that I reflected more on my strategies for writing.

Busy day

Friday, January 12th, 2007

(...)

Part of the puzzle about writing is that I need to write pages that aren't too much work, when I haven't got much time. I always do quite a bit of in-depth reading, but that also makes it harder for me to sit down and write. Might be better to go

with the easy bits first, so that I keep up the momentum and we keep adding text. It doesn't have to be rocket science, even though some of it is and I want to be precise about what I write.

By March I had settled into my writing tasks and developed a sense of ease and enjoyment of writing contributions for Sex-and-Relationships. However, without a clear time table I would have found it very difficult to confront my hesitancy. Often a query sent to me by a participant to the email advice service became the core of the next web page I wrote, thereby following the needs of our service users.

Writing pages
Wednesday, March 14th, 2007

Yesterday [I] thought I am writing pages for the site now in a very organic way. Had an interesting query, which has been the second one of its kind so want to write [a] page about that topic. I think that makes the site grow in accordance to people's needs and what they want from us. It also means I will have thought about that topic already when answering the email and I can see that as a basic outline for what I want to write for the page.

My second main focus during this time period was to develop my research skills through reading more on action research methodology. However, my activity with respect to my research study and my work on Sex-and-Relationships still seemed to be separate and resulting in competing claims on my time. I used my blog to write up notes on the literature I read and to reflect on where I might be at within the action research cycle.

Reflections
Monday, November 6th, 2006

(...)
There seems to be so much more internal work involved in this rather than external. I seem to be learning loads about all sorts of things connected to research and the web, but it all feels it's a learning curve inside of me. It doesn't at the moment result in any major external things. Maybe Rod and I will be most transformed by this project not the web site. I hope this can be fully part of the action research as being a reflexive practitioner. Maybe later on things will show more externally. I think though that maybe my learning and thoroughness has triggered Rod off too to get more precise about how to do things. Maybe the project is challenging us both to get better at what we are doing and hopefully that will show up in the end product too!

Most of our basic procedures for working on Sex-and-Relationships were established and working well and I started to experience a sense of ease about working with the technology,

the internet as a medium and in partnership with Rod. In addition, we started a 'To Do' list for each one of us as a password protected page on my blog, which allowed us both to keep track of our respective jobs and what we had completed. Rod overhauled the home page of Sex-and-Relationships and included more images and short cuts to the most accessed pages.

Early bird

Sunday, January 21st, 2007

(...)

I am feeling really chuffed with the structures we have set up. I can do some work on the blog or the emails from wherever I have an internet connection and enough privacy. It's easy for me to take some reading along, do a bit and then type it up for my blog to keep and hold on to it. I am also very pleased with the to do lists. That means I won't have to keep my own tasks or Rod's in my head, I can just check on our progress any time. This is starting to get well organised!

(...)

Our online advice service was taken up by 20 participants in 2006, which provided me with enough experience to start feeling comfortable with answering questions. One issue, which surfaced, was that some participants wrote to both Rod and myself in the hope of eliciting responses from both of us. In the past this had worked very well, but in December 2006 Rod replied to a query, which had also been sent to me, in what seemed to me quite a harsh way. My initial response to this was to think that it might be confusing for the recipient that we sent very different responses. I therefore started to suggest peer supervision to Rod, really as a covert way of me being able to influence his answers. However, after more reflection on my part and some discussion of that particular query I could see the usefulness of his reply and the importance of allowing for difference between our views. Our separate responses could also be seen to reflect our gendered approach to answering emails which our project was designed to capitalise on not to standardise and suppress. We continued to reply to emails separately and independently, but repeatedly sought each other's opinion and help with specific queries.

5.2.4.3 Reflections on Sex-and-Relationships during Winter 2006/07

On the one hand, winter 2006/07 saw Rod and myself put tremendous energy into Sex-and-Relationships. We became much more efficient with working on the project and started to contribute regular content to it. On the other hand, our visitor numbers and our sales stayed

virtually the same. This resulted in a real sense of disappointment and stagnation for me. After all, Sex-and-Relationships had been running for 15 months as part of my action research by the end of March 07 and I didn't feel we had moved on externally with respect to visitor numbers to any significant degree. Additionally, our sales were much lower than both of us had hoped for and my share of the income was not able to cover my tuition fees with Manchester University.

I believe without the PhD I would have given up on Sex-and-Relationships at this point. Luckily, the PhD provided me with enough additional benefits to make my work on the project seem worthwhile.

The lack of sales prompted Rod and me to consider possible reasons for the ineffectiveness of the website at least with respect to producing income. Of course this also suggested that the website could be ineffectual in reaching people in general. Rod suggested that one explanation was that the website did not load fast enough. Webmasters assume that a website needs to load within 7 seconds of the user clicking on its link (Rod, personal comment). If a website takes longer than visitors may get impatient and click away again to a different website. In this case, Google Analytics would record visitors to our site when actually they did not even wait to see our home page. The 7 seconds limit must be seen as a rule of thumb and it depends on the type of connection used to access the internet how fast a web page loads. Nevertheless, at this point in time Sex-and-Relationships did not load fast enough on our own broadband connections to satisfy this requirement.

Rod's first assumption about what was causing our slow load time was that the code which helped us to collect data for Google Analytics and which was embedded in all our web pages was responsible. He tested his theory by removing the code from a number of web pages for a time period and our load time or sales figures did not change. His next suggestion was that maybe our navigation bar was at fault. The latter was the only technically sophisticated element of our web design, which required Java script programming which neither of us was able to do. Rod started a search for a similar navigation bar, which was technologically simpler and would load quicker. Once he had found a possible option we had to delegate this piece of work as neither of us had the expertise to program a new navigation bar.

During this time period the partnership between Rod and I became ever more important to me as a way of gaining support and encouragement to continue working on Sex-and-Relationships. It seemed that the internet was still a fairly silent medium, with only sparse dialogue between service users and myself. The data gathered through surveys was welcome and very encouraging, but our overall visitor numbers remained static and disheartening.

We continued to develop content for Sex-and-Relationships, especially with respect to the emotional literacy side, which I had neglected so far. Also, we realised that our strategy to develop back links through small articles wasn't working as well as Rod had hoped. To encourage more visitors linking to us we placed a note on our home page suggesting that linking to Sex-and-Relationships was an excellent way for visitors to support the project if they liked it. In general, new ideas and plans for ongoing work far exceeded the time and energy we could both give on a part-time basis to Sex-and-Relationships.

Ideas for 2007

Thursday, January 18th, 2007

(...)

Plus there is always that question about dialogue. How much dialogue can we foster? Do visitors want it? Is the email address enough or should we have something else like a notice board....but then we would need to police it a bit.

Main themes November 06 till March 07: Action Phase
Design: Completed, homepage updated to be visually more appealing and included image of a black couple in the logo bar.
Technology: Search for a faster loading navigation bar to improve effectiveness of site.
Content: Writing content becomes the main focus of my work on the site. With the help of a clear aim, namely to write 1 page per fortnight, writing content becomes consistent and easier. Answers to email queries start to provide material for web pages. Writing becomes non-linear and directed by demand and my interests at the time.
Online environment: We slowly receive more traffic through Google. Our main focus is to create more content to improve our standing in Google. Free articles don't seem to create sufficient back links.
Data collection: Google Analytics records between 207 and 400 visitors per day on average each month. Results from our second web-based survey give us information on our use of language. CCBill starts to record accurate sales figures, which are surprisingly low. This starts a dialogue between Rod and I about how to make the website more effective. Additionally, we are still looking for a reliable measure for back links.
Online advice: Received 20 email queries in 2006. Overall, service is functioning well as I gain more practice in working effectively within the online medium. Allowing for different responses from Rod and myself to capitalise on gendered approach. In general, aim to include all relevant information in my first reply in case enquirer does not take up my suggestion of a dialogue.
Cost/sales: No further costs, sales between 12-17 per month from December onwards, income in total Dec 06 – March 07 £300, work on new navigation bar in progress for free.
Development process: Action phase: Writing content for the website, trying to optimise load times, learning about action research.
My position: Hard working and rather disheartened as visitor numbers stay static even after 15 months of work on the project.

Table 6: Summary of main themes emerging November 2006 until March 2007

5.2.5 'Hi Anna' 2006: The first year for the email advice service

5.2.5.1 Data gathered through the email advice service in 2006

In 2006 Sex-and-Relationships received 20 email queries to anna@sex-and-relationships whereas Rod received only 2 queries direct to him both from men. This could have been either due to visitors clicking on the first listed email address, which was the one for Anna, or, more likely that a considerable amount of enquirers preferred to ask a female

professional questions. From the 20 emails sent to anna@sex-and-relationships 14 were from men and 6 from women. Most queries seemed to originate from First World countries such as North America, Europe, Australia and New Zealand, whilst two participants explicitly stated they were located in India. The topics people asked about were very diverse with recurring issues being about relationship problems, masturbation, penis size and using condoms.

12 queries consisted of a one-off email exchange and 8 developed into longer dialogues with the enquirer replying to my response at least once. Longer email dialogues ranged from four exchanged emails to 16 and one dialogue continued into 2007. 12 queries constituted simple questions for factual information whereas 8 queries involved complex issues, which required the use of my knowledge and skills as a qualified psychotherapist. 15 respondents used excellent English to draft their question whilst 4 used a good level of English and one question was drafted with a basic understanding of English.

To learn more about the impact of the email advice service I set up a feedback survey at the beginning of August 2006. From this date onwards we received 11 email queries. In addition to sending my response I sent out a standardised email to all enquirers one week after sending my reply to invite them to complete our feedback survey, which was accessible through a link in this email. From 11 possible respondents 9 clicked on the link to give us feedback and 8 completed the whole survey.

From the 8 responses 5 were from men and 3 from women. 3 respondents gave their age as '20-29 years', 2 respondents ticked '30-39 years', 2 respondents ticked '40-49 years' and one stated 'over 50 years' suggesting a fairly even spread of respondents according to age. It was especially noteworthy that 3 respondents stated they were over 40 years of age and no respondents stated they were minors, i.e. 16 years or below. The geographical locations people gave were Europe (2x), North America (3x), Indian subcontinent (2x) and Africa (1x), coinciding with my earlier analysis based on the content of emails.

All but one respondent stated that they had read my response to them and all clicked 'yes' for having expected us to get back to them. We received 7 answers to the question of whether my reply had been useful or not. One stated 'no', one 'yes and no' and 5 'yes' with 4 leaving more in-depth comments. To the question 'Was there anything we could have

explained better?’ we received 7 answers, one stating ‘yes’ and 6 stating ‘no’ The additional comment left with the ‘yes’ reply was ‘took a long time to get a response and by the time I received the response some problems resolved itself.’ This reply was from an enquirer who had written to me just after I had left for a three week vacation and who Rod had sent a holding email to, but who I could only reply to in-depth on my return.

The last three questions in the feedback survey inquired into the possibility of ongoing dialogue with people. Out of the 8 respondents I had offered 7 an ongoing dialogue whilst not doing so with one enquirer whose question was very straight forward. Of the 7, who I had offered a dialogue, 5 stated that they had written back to us and taken up the offer whereas 2 respondents stated that they had not taken up the offer. The additional comments as to ‘why not?’ were answered by these two responses with ‘no time’ and ‘Because in many respects Anna re-affirmed my own assessment of the situation. Over the next few months it will be time for me to take actions to resolve these issues, if I feel a bit nervous I shall read her email again to calm down and focus on what’s important’.

Finally, within the general comments section of the feedback survey we received 6 entries, which are listed below shown in the way they were typed in, excluding the last which re-stated the original question:

1. Sounds good.
2. took a long time to get a response and by the time I received the response some of the problems resolved itself.
3. It was very quick and your answers to my questions and problems were respaonded to in a very clear and possitive way.
4. Its great ! Pl. continue to help people like me as selflessly as you do. I cannot express enough, the gratitude I hold within my heart for giving me this service. Thank you again, from the bottom of my heart.
5. A good idea. But as you know, a good answer must address the question. Anna and Luke had opposite readings of my initial, identical question of each, leading to opposite answers. I have not yet received an answer from Luke to my clarification. I am most impressed by the thoroughness and generosity with which Anna answered both my question and my reply.

Overall, the feedback survey showed a majority of positive feedback from participants. It also allowed me to pick up on 'lack of time' as to why people may not have engaged in further dialogue and that turnover time of response was crucial. It also left me wondering about the one entry, which suggested the enquirer may not have received my original response, because he or she had reiterated the original question in the comment box. Of course, the participants who completed the feedback survey were self-selected and visitors who had had a positive experience of the email advice service might have been much more inclined to complete the feedback survey.

5.2.5.2 Reflections and issues of the email advice service

It was encouraging to see 70% of enquiries in 2006 originating from men. It has been suggested that the option for anonymous help may suit the non self-disclosing style of information seeking often associated with men (Pinnock and Jones 2003) and our data is in line with this suggestion. Despite the language barrier we received at least two enquiries from non-Western countries and at least one person was not too intimidated to write to us even with basic English skills.

A major issue for me at the start of running the email advice service was the lack of follow up replies I received from enquirers despite my offers of continuing a dialogue about their question. I was used to working slowly as a psychotherapist. This meant that I always made an assessment of a person first before delivering an intervention so that I could assess the impact my actions might have on the other.

My strategy of taking time and trying to assess people first was highlighted to me through an email exchange with a woman in June. Her email suggested that she had developed a case of vaginismus (involuntary muscle spasms preventing penetrative sex). As is often the case with this problem the picture she presented showed that she thought the problem may be with her partner rather than herself, i.e. that her partner had problems with his erections, a secondary problem men can develop in response to their partner's difficulties with penetration. I felt I could not challenge her assumptions about the cause of the issue in my first response to her, but thought it would be better to invite her into a dialogue and prepare the ground for an in-depth response, which she might experience as quite challenging. However, the enquirer did not write to me again which meant that I had not given her all

the information she could have received from me in my one email. In particular, I had not used the term 'vaginismus', which I believed could have made it much easier for her to access important information elsewhere on the web.

After the above incident I decided to always write a detailed reply including all of the relevant information in my first reply to queries trusting that enquirers would use my answers well. I always stated that my suggestions were only suggestions and that people needed to use their own common sense when applying them. Also, I always suggested that people sought medical help or additional offline therapy if it seemed necessary thereby actively complying with the 'complementarity' guideline of the HON (2007). My new choice of strategy was confirmed when I read Hahn's (1998) research, which showed that the users of the IT support service she investigated only wanted the briefest of possible exchanges contrary to the expectations of staff.

Moreover, I started to wonder how many email queries I could possibly deal with every week in addition to working on the website, the research and my normal working day. If the service would become popular, did I have the capacity to answer all queries? To get more clarity about this issue I decided to record how long it took me to answer individual questions at the beginning of 2007. This would then allow me to consider the overall workload created through incoming questions.

Another benefit, which started to emerge through people using the email advice service, was that I started to write web pages for Sex-and-Relationships in response to recurring queries. I thereby started to use the email advice service like an information needs assessment of service users. Reading through the literature I became more and more aware of how important it was to be able to tailor ones materials to the end user rather than stay within ones own frame of reference and agenda as to what might be beneficial to service users (Pinnock and Jones 2003).

5.2.6 Phase 5: Data collection

During Spring 2007 I continued to gain more data through Sex-and-Relationships especially through our third web-based survey, which was completed by 240 respondents. On the other hand, visitor numbers continued to stagnate and did still not reflect our continuous work on the site. This sparked a new phase of reconnaissance and reflection resulting in us adapting Sex-and-Relationships more fully for its online environment.

5.2.6.1 Data collected between April 2007 and July 2007

Google Analytics recorded our visitor numbers for April 2007 as 454 visitors per day averaged over the whole month or 13,612 visitors in total. The figures for the following months ranged between 398 and 455 visits per day on average.

In May 2007 Google Analytics updated its appearance and some of its measurements to what it called the new 'beta interface'. Many of the basic functions stayed very similar to the old version, however, visitor numbers were now recorded as number of visits and a separate figure was given for 'unique visitors'. I decided to use the number of visits as a way of including repeated visits by the same visitor in the overall count. Google Analytics also included a new measurement for websites, which it called 'bounce rate'.

Supervision with Jane 18.5.07
Saturday, May 19th, 2007

(...)

I have also had a better look at Google Analytics and the new measure of bounce rate they are offering: *Bounce Rate is the percentage of single-page visits (i.e. visits in which the person left your site from the entrance page). Bounce Rate is a measure of visit quality and a high Bounce Rate generally indicates that site entrance (landing) pages are not relevant to your visitors. You can minimise Bounce Rates by tailoring landing pages to each keyword and advertisement that you run. Landing pages should provide the information and services that were promised in the advertisement copy.*

I think that is really useful. This could be a measure of the people, who just come to have a look at the pictures, although of course there are pictures on several pages, so those people may also click around. I will need to check with Rod whether our current bounce rate seems high to him or not. I wonder whether it would also include those people, who click on the site, but who don't wait till it loads, because the navigation bar makes it fairly slow. I think it probably will...

The measure of 'bounce rate' allowed us to gain more information about our visitors, namely, how big a percentage clicked on Sex-and-Relationships, but subsequently did not engage with the site as they clicked away again from the first page they saw. However, this measure is open to interpretation. Even visitors who were just looking for pornography might access more than one page and would therefore not be included within the bounce rate whilst another visitor may have found the relevant page immediately, read it in detail and then moved on to a different website. In general however, bounce rate, as suggested by Google, needs to be seen as a measure for how big a percentage of visitors is engaging more fully with a website compared to those who presumably did not find what they had been looking for and clicked away again.

In May 2007 Google Analytics recorded a bounce rate of 34.40% meaning that one third of all visits to Sex-and-Relationships only accessed one page before clicking away again. With respect to the number of daily visitors averaged over the whole month this suggests that only 261 visits per day engaged with the project more fully, whereas 137 clicked away again.

Google Analytics June 2007
Tuesday, July 3rd, 2007

Figures are as predicted after Google has changed the algorithm on the 12.6. I guess we better get used to these changes, they are simply not stopping. Our visitor numbers are up, but our bounce rate is up and our sales figures are down. This seems to suggest as Rod mentioned more people find our site, but less people find what they are really looking for. Or maybe we are going up with respect to the sex positions queries, but not about general relationship or sexual issues, which isn't really the audience overall that we are writing our project for. This is fairly frustrating! (...)

The ratio of new and returning visitors averaged over the 4 months was 83% new visitors to 17% returning visitors, which is close to the figure for the previous time period. Similarly, the list of countries from which visitors had accessed us most frequently stayed the same. In April and May 2007 our rate of referrals through Google had risen to 15%, but dropped down again to 11% in June after another one of Google's algorithm changes.

Our web-based survey during this time period included questions on sex education in addition to the standard questions on demographic data. The sex education survey was open from the 23.3.07 until the 5.8.07 and 240 participants completed the informed consent

statement and the first page of the survey (see appendix 5 and section 5.3). The third page of the survey asked questions about sex education. 231 respondents answered all 5 questions. The first question asked respondents to rate their knowledge about sex. Out of a total of 231, 8% ticked 'basic', 43% ticked 'average' and 49% ticked 'very good'.

The next question asked whether respondents had ever received sex education in school. 59% answered with 'yes' and 41% answered with 'no'. The subsequent question asked whether respondents could talk to their parents about sex, which 30% answered with yes and 70% answered with no.

The next question asked about how people had found out what they knew about sex. 26% stated 'talking to friends', 6% stated 'TV', 20% stated 'books', 6% stated 'magazine', 23% stated 'through a lover' and 18% stated 'other'. Some of the answers given under 'other' included a variety of sources. Quite often people gave a combination of the above named sources as well as 'practice' and 'internet'. The final question on this page asked about whether people had easy access to information about sex other than via the internet. 68% stated 'yes' and 32% stated 'no'.

Generally, this data suggested that the majority of our visitors already had a lot of knowledge about sexuality and sexual health. What was noteworthy was the high percentage of respondents, namely 32%, who stated that they had no easy access to sex education other than via the internet.

Page 4 of the survey asked for personal information from respondents about their immediate relational context. This section was optional so that respondents could choose whether they wanted to answer or not. 217 respondents completed the first question, which asked whether respondents were currently in a sexual relationship. 78% answered with 'yes' and 22% answered with 'no'. 195 respondents went on to answer the second question, which asked 'If you are in a sexual relationship, are you sexually fulfilled?' More people, namely 195, completed this question than stated in the above question that they were in a relationship. From the total of 195 people, who completed this question 63% answered with 'yes' and 37% answered with 'no'. A sex-positive approach seemed especially appropriate so as to support the high percentage of individuals who felt happy with their sexual

relationship through offering them advice to further improve their sexual health and relationship skills.

Finally, data from my ongoing dialogue with Rod shows that we exchanged 72 emails and 9 phone calls during this time, but did not meet in person. The most important themes in our dialogue were update (45 instances), friendship (33 instances), jobs (16 instances), technology (10) and sales (8). This data suggests that we were focusing on the tasks involved in developing Sex-and-Relationships as well as attending to our relationship.

5.2.6.2 Issues in the development of Sex-and-Relationships during Spring 2007

Spring 2007 was a busy time for the project and for the action research. The research component of my study started to demand more of my time as I prepared for the PhD review panel at Manchester University. Additionally, I felt knowledgeable enough for the time being to stop reading research methodology and started working on a literature review. Up to now, Rod and I had worked on the project following our own ideas, prior experience and what we could learn from the incoming data. As I started to read literature about other projects in the health promotion and sex education field many of our choices were confirmed by other people's work whilst the literature contributed new perspectives and ideas.

My ongoing work on Sex-and-Relationships continued with writing one page of content per fortnight and answering email queries. Sometimes this pace felt very demanding on top of my normal work schedule, but the routine I had established for writing helped me to focus on producing more content. Still, it seemed as if the project had barely taken form and we still had no content for many important subject areas. Our visitor numbers and sales figures continued to be stable, but did not show any significant increases. By mid July we had finally implemented the new, faster loading navigation bar, however, it also did not improve our figures.

Sales started off at 22 in April, but declined to 8 in July providing an overall income for the site of about £300 during Spring 2007. A further shift in Google seemed to have resulted in us receiving more overall visitors, but less sales and an increased bounce rate suggesting that many people who found our site were looking for something else.

The email advice service continued to do well. Rod submitted an article about our advice service to various free article banks on the internet to promote the service, which seemed to contribute to the continuous stream of queries that arrived. The main development with respect to the online advice service was that boundaries between my offline and online work became even more blurred. I had originally hoped to keep my online work completely separate from my offline practice as a way of protecting myself from possible online harassment, however, as the project progressed more and more transgressive instances occurred. For example, an acquaintance of mine used the online advice service to get me to dialogue with her about her sexual issues, despite the fact that I had declined to do so offline. On the other hand, in a few instances my online work also informed and enriched my offline work.

Talking about inner and outer!

Tuesday, May 29th, 2007

How strange, inner and outer boundaries are fusing even more than I expected. Have now received an email query from an old friend of mine, offline world definitively bumping into online world here. What to make of this? It reminds me of the other incident [with my ex-client], although that one was certainly much trickier. People are using the fact that I am available via this medium, maybe I should better get used to it. I still need to get my head round this emotionally though. Maybe it's a good thing.

Inner and outer boundaries

Tuesday, May 29th, 2007

Want to take notes of how much in small ways the offline online distinctions are changing for this project. I know that at least one person connected with one of my offline clients has used our website and the premature ejaculation package. I now have referred somebody online to my offline contacts. I hope many of my offline contacts will start to link to our project to increase the number of links we have. That is another connection being made between offline and online. (...)

Additionally, our reflections on our stagnating visitor numbers resulted in us acknowledging the importance of incoming links to our website much more. Creating more incoming links or back links to Sex-and-Relationships became the main focus during Spring 2007. Somehow we had been so steeped in our own work on the site that we had missed the importance of connections to the internet beyond Sex-and-Relationships.

Links

Wednesday, May 16th, 2007

Rod has mentioned in his email yesterday how hard it is to get links nowadays. (...) Maybe he is right that you have to be tabloid-esc and make lot's of unfounded noise to get anywhere on the net. Real stuff doesn't get distributed. (...) Links are really important, they are such a huge thing about the web, it's not good that it's so hard to get them.

Of course we are not good at linking to others either. In fact we are not making much promotion at all, or talking to outsiders about the project much (...). Maybe we need to put much more effort into linking with others and joining up in some way and then they will link to us too. (...)

As links functioned like a currency for Google it was hard to get links from websites with related themes, especially more official ones with domains ending in '.ac' or '.gov'.

However, the need to create more links opened up a whole range of possibilities for Sex-and-Relationships. One of them was a stronger connection between the website and my research, i.e. any academic article I would publish could be extremely important in us gaining more incoming links. Our measurement for incoming links was still a Yahoo search, which seemed unreliable. Our link count continued to change on an ongoing basis as links were created and deleted. Rod assumed that those created through articles were often only temporary. On the 30.6.07 Yahoo recorded 188 back links for Sex-and-Relationships whilst on the 13.7.07 this figure had dropped to 179.

Google penalises sites for buying links as it sees it as a form of cheating which is analogous to the academic peer review system. Therefore, our next strategy to gain more links was to write to individual websites, which displayed an email address on their site and ask them whether they wanted to exchange links with Sex-and-Relationships, a very slow and repetitive process.

Done for today

Thursday, July 26th, 2007

Feels like I have been on this computer for ages. However, have only sent off about 13 emails for links, which doesn't sound like a lot. With some of them I feel really silly, I mean if the Kinsey Institute would agree to link with us I will get the champagne out. So hopefully, nobody is off with me for writing to them. I guess worst case scenario, I get ignored. There is so much more to do though as usual. I guess this will be an equally painstaking process as writing pages. Still this is great, let's see how we are doing with this.

From the 26.7.07 onwards I started to write to other websites to ask for a link exchange. My aim was to send about 10 invitations for a link exchange per week, a task which first entailed looking on the internet for relevant websites, secondly, including a link from us to them on our resource page and then writing to them asking for a link exchange whilst showing them our link to them. For every 10 emails I sent out, I received about 1 or 2 replies at most. Negative responses to our site either seemed to be due to the explicit images on Sex-and-Relationships or the fact that our site had a commercial element to it. By the way, the Kinsey Institute did not agree to link to us, but was interested in linking to my blog.

The need for more incoming links pushed me for the first time to engage in much more dialogue about Sex-and-Relationships. Additionally, the site had developed far enough for me to be able to show something substantial to others. Our procedures were well honed which freed up time, which I could spend looking around on the net. I started to read other people's blogs and contributed comments to theirs.

It's working!

Monday, April 9th, 2007

Right now I feel really damn hopeful that the project will grow and develop. I think finding the time to finally start talking to others and using the internet has given me a door. I can go out there, make new acquaintances, chat about stuff, get links for the projects, find things, which will enrich the blog and the PhD and basically just have fun. I think this can really work. Also, have had email from Sally [chairperson of the BASRT⁹] and she's looking into developing links. That would be just so great, so watch this space.

In June 2007 I wrote a first piece about Sex-and-Relationships for the BASRT⁹ newsletter, which was a significant step for me in terms of presenting myself offline as co-author of Sex-and-Relationships.

5.2.6.3 Reflections on Sex-and-Relationships during Spring 2007

Finally, in spring 2007 Sex-and-Relationships had matured enough in its design and content for me to feel comfortable about presenting it to the world offline and online. My hesitancy to do so previously was very much associated with the sexual nature of the material

⁹ BASRT is the British Association for Sexual and Relationship Therapists

presented. Only looking back did I notice how awkward I had felt on some level to be associated with Sex-and-Relationships. My professional identity had not included being a sex educator or psychosexual therapist. Additionally, the project itself needed time develop so that I felt happy presenting it. Rod and I had worked on it consistently for one and a half years and it had taken the project much longer than expected to develop into a final form.

With the new possibilities for dialogue and options for improving visitor numbers via increasing back link numbers new excitement and energy started to flow between Rod and me and into the project. It was particularly affirming to receive replies to my emails for link exchanges from other web masters who gave us positive feedback about Sex-and-Relationships. The debate about what type of images to present on our home page and elsewhere and how we positioned ourselves in our portrayal of sexuality continued as I tried to integrate my different professional roles into a coherent professional identity. Below is a screenshot of the final version of the home page of Sex-and-Relationships taken on the 12.10.08.



Sex & Relationships

sex-and-relationships - sex positions - home page

main sex menu
choose where to go:

- home
- sex positions
- sex in general
- the facts about sex
- masturbation
- oral sex
- sexual fantasy
- problems: if sex goes wrong
- masculinity / femininity test
- virginity
- sexual infections
- safer sex
- sensate focus
- shop

Welcome to Sex & Relationships!

This website is dedicated to giving you information and advice on how to achieve robust and intimate relationships and a fulfilling sex life. We offer advice on sexual health topics such as safe sex, sexual problems and psychosexual issues, as well as on the dynamics between couples and how to keep your relationships alive. Use our free and anonymous [email advice service](#) for any additional queries you might have.

As human beings we are destined to seek out relationships, and having sex helps us to bond deeply. Sexuality is a powerful, primal force in our lives, which drives us out into the world to seek partners and ways of expressing ourselves with others. Unfortunately, as a society we talk very little about relationships and how to make them work - and we discuss sexuality even less. But good sex and good relationships are vital in all our lives and they're an important aspect of happiness for most people. We hope this web site will get you thinking and talking about sex and relationships.

Anna & Rod:
Male and Female Co-authors

This website is co-authored by a man and a woman to give you information on sex and relationships from a male and a female perspective. Sometimes we indicate who has written what so you can be clear about our bias. We hope that with this double narrative we can capture some of the complexity inherent in human relationships.

Research

This sexual health web site is part of a PhD research project. To read more about the research [click here](#). With our backgrounds in therapy and with this research, we aim to make this the best site on sexual health, sex, psychosexual problems and relationships on the web. If you would like to contribute to our project, first and foremost - use this site!

Then, let us know what was useful to you and what you think of how we've gone about it, either by filling in one of our surveys (see right hand column) or by [writing to us](#). Your contribution will be much appreciated!

Some comments our readers have left us so far:

- Highly informative, nice presentation, very erotic without being explicit or vulgar.
- A bit too directed towards only heterosexual couples. You could add a few more things having to do with same sex couples, as their sex is so different to a male and female couple.
- Would like to see section on decreased libido in women (and men) and what to do about it.
- Useful, erotic, informative. Perhaps a bit wordy and worthy, but very much better than most sex sites which are either superficial or pornographic.

Would You Like The Best Sex Ever?



This website has hundreds of high quality photos and downloadable videos of sex positions as well as loads of exciting sex tips, tricks and techniques. In fact, all the secrets of fantastic sex are here! View it with your partner now, and you'll be having **your best sex ever - tonight!**

Men: Do You Have Difficulty Reaching Orgasm and Ejaculating During Sex?



If you're a man and you're having a problem reaching orgasm or ejaculating, you may have a condition known as delayed ejaculation. This unique website has a treatment program which will end this problem right now and show you how to [ejaculate normally during sex once again](#).

End Premature Ejaculation NOW!



Men! It isn't difficult to learn how to last longer during your lovemaking. This will give you greater confidence, the ability to truly satisfy your lover, and the pleasure of more powerful and intense orgasms.

[Click here to find out how you can develop](#)

Most Popular Pages

Free online email advice
Got a sexual or relationship problem? [We're here to help](#)

Sex positions
Woman on top can be fantastic for both of you - [find out why](#)

Penis size - does it matter? What women really think.

Dealing with premature ejaculation
[If you want to control your ejaculation read this.](#)

Vaginismus & other sex problems
[Get answers to your sex problems.](#)

Games people play
True love doesn't always run smoothly! [Your better relationship](#)








click here for more information on **relationships**

- about us
- research
- the blog
- contact us

Contact us for free and confidential advice from our online psychosexual clinic.

Would you like to help with our research by taking a short survey?
[Site Usage Survey](#)

Webmasters!
Would you like to exchange links?
[Click here for details.](#)

Support This Project!
Our objective at Sex-and-relationships.com is simple - to provide good advice and trustworthy information to as many people as possible.
If you like what we're doing, then please support us by linking to us from your website, blog or forum, or email others to let them know about us!
Thank You!

For daily updates on the progress of this site and its research [read our blog!](#)

Diagram 14: Screen shot of the home page of Sex-and-Relationships taken on the 12.11.08

Main themes April 07 till July 07: Reflections
Online environment: Need to increase our number of back links, as they function like a peer review system in Google.
Data collection: Google Analytics is updated and starts to include the measure 'bounce rate', which puts visitor numbers into a new light. Additionally, it now records visitors as number of 'visits' and number of 'unique visitors' separately. Numbers of average daily visits range from 398 to 445. Our third web-based survey is completed by 240 respondents and includes questions about levels of sex education.
Online advice: Functioning well, boundary issues between my online and offline work.
Cost/sales: Annual web hosting fee of £32, sales stay very low and earn the project £300
Development process: Writing content for the website. My literature review for the research is informing my work on the project. New focus on gaining more incoming links, which creates the necessity for external dialogue online and offline.
My position: Project has developed sufficiently for me to feel able to present it online and offline. I am revising my professional identity and start to challenge my own barriers to providing sex education. New excitement about possible ways forward.

Table 7: Summary of main themes emerging April 2007 until July 2007

5.2.7 Phase 6: External dialogue

The last 5 months of data collection for this study finally showed the impact of our continuous work in the number of visits as well as in other areas. During August Rod suggested that our low visitor numbers could be due to the fact that our content focus was too wide. Google suggests that websites need to be coherent and focused on one theme to do well in its search algorithm. We had wanted to build a project which did not treat sexuality and emotional skills separately, but which integrated both sides to support people in learning about intimate relationships. Therefore, we had decided to use only one domain or URL address for the project despite the very broad topic we were covering.

After more discussion about possible causes for our stagnating visitor numbers Rod decided that we should divide our project into one half focused on sexuality, which would stay at our normal URL and a second half on relationship issues under a new domain called

Relationships-Explained¹⁰ to see whether too broad a content focus was the issue. We decided to leave the structure our visitors would see intact, i.e. one could move with one link in the top right hand corner from one part of the site to the other and the format and design of both parts of Sex-and-Relationships would stay the same. Therefore, visitors might not even notice the fact that they had moved between two different web domains when moving from our content on sexuality to our content on relationships and vice versa. The use of two URL addresses came into effect on the 24th of August.

The division proved to be the most important single intervention we implemented in the development of Sex-and-Relationships. It resulted in an increase of visitors referred to Sex-and-Relationships through Google and overall a dramatic increase in visitor numbers. Unfortunately, it also had other consequences. After dividing the project I wanted to track both parts of the project independently in Google Analytics, which meant that Rod needed to open a separate account for Relationships-Explained. Whilst setting up the new account on the 10th of September Rod by accident erased the old account and deleted all previous data collected by Google Analytics for Sex-and-Relationships. What had seemed like an overwhelming amount of information stored in a secure location had vanished with the click of a mouse.

Luckily, I had made continuous notes on the data I was interested in and kept a file on my computer as well as paper copies of the data I needed. However, I had not yet transcribed the figures for August 2007 and this data is therefore missing. Our figures in Google Analytics are available again from the 10th of September onwards.

5.2.7.1 Data collected between August 2007 and December 2007

Data from Google Analytics is only available for 20 days in September 2007. During this time period Sex-and-Relationships received 26,205 visits in total, which is on average 1,310 visits per day. However, our bounce rate also increased to 41.38%, which meant that we only received 768 visits per day on average, which viewed more than one page. Our main source of referrals for visitors became Google, which provided 51% of all referrals. With respect to location of visitors the most frequent countries stayed the same, namely

¹⁰ URL: www.relationships-explained.com

USA, UK, India, Canada, Australia and Germany. However, Europe and Asia now provided equal amounts of visits.

During October 2007 our visitor numbers stayed roughly the same. We received 1,203 visits per day on average with a bounce rate of 42.62% resulting in 691 longer visits per day on average. The main referrers of traffic to Sex-and-Relationships were Google at 56%, Yahoo at 9% and Google image search at 9%. Geographic locations for visitors remained nearly static with the exception of China appearing on position 6 of the countries visitors most frequently accessed us from.

Subsequently, during November 2007 our visitor numbers rose further. Sex-and-Relationships received 1,454 visits per day on average, and 1,276 unique visitors per day on average. A bounce rate of 41.78% indicated that Sex-and-Relationships received 847 longer visits per day on average. Referrals through Google rose to 60% whilst all other figures stayed the same. The figures for December 2007 showed 1,400 visits per day on average (bounce rate 42.07%, 811 longer visits per day on average). 50% of visitors accessed us from the USA, whilst 6% accessed us from the UK and India respectively, 5.6% from China and 4.5% from Canada. Over the whole 5 months period we had on average 14% returning visitors and 85% new visitors. During November and December the home page of Sex-and-Relationships became the most accessed page followed by some of the sex positions pages and those on female sexual anatomy.

Sales also increased during this time period, namely from 13 in August to 22 in December. Overall we achieved 89 sales over 5 months resulting in Sex-and-Relationships earning £445 over this time period.

The fourth and last web-based survey for this study included the same questions regarding participant's demographic background as well as questions directed at eliciting information about how visitors used and interacted with Sex-and-Relationships.

The survey 'site usage' was accessible to participants between the 5.8.07 and the 31.12.07. 152 participants completed the informed consent statement and the demographics section of the survey (see appendix 5 and section 5.3). The next page of the site usage survey contained 7 questions, which were answered by 129 participants. The first question was:

'How many pages have you viewed?' 26% answered 'only 1', 18% answered '2 pages', 9% answered '3 pages', 12% answered '4 pages' and 34% stated '5 or more'. This result certainly delighted me as it suggested that a third of respondents to the survey had found the site interesting enough to view more than 5 pages.

The next question tried to elicit data about the information needs of respondents by posing the question: 'What are you looking for on this website?' 5 preset answers were given with a sixth option to specify one's own answer. The results can be seen in diagram 15 below. Respondents left 21 additional comments under 'other' most of which referred to sexual health information.

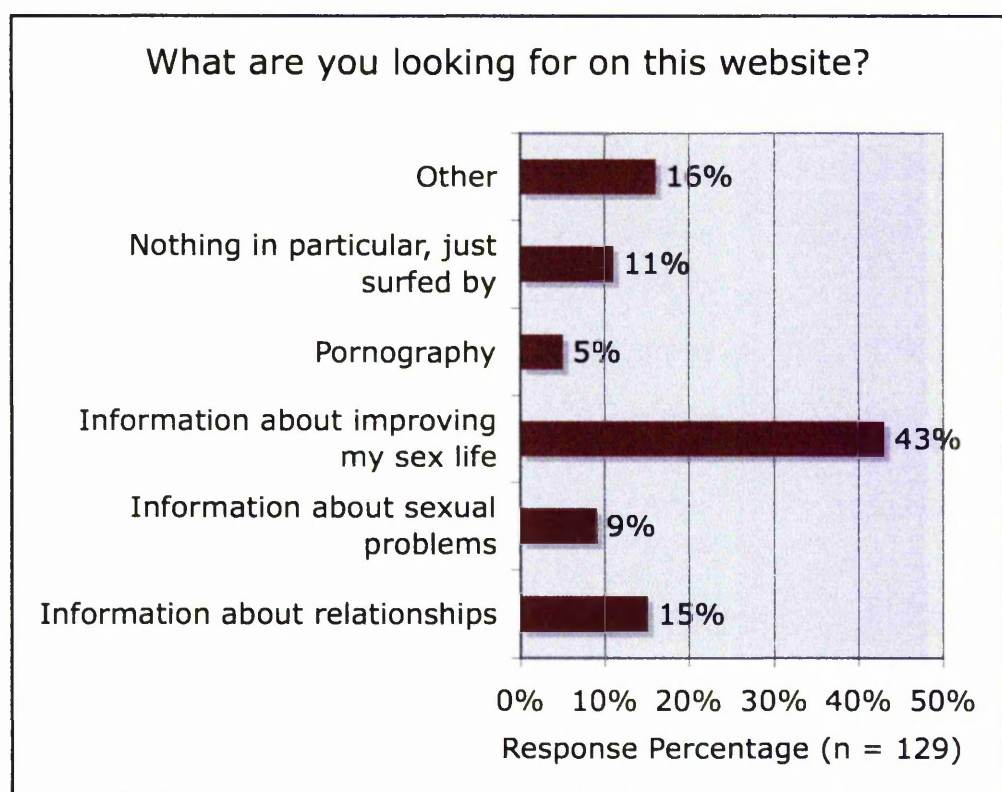


Diagram 15: Results of question 7 of the site usage survey: 'What are you looking for on this website?'

Additionally, we wanted to check whether respondents to our survey read the texts on Sex-and-Relationships and to what extent or whether respondents simply viewed pages. Our next question was therefore 'Have you read any of our text?' The responses can be seen below in diagram 16.

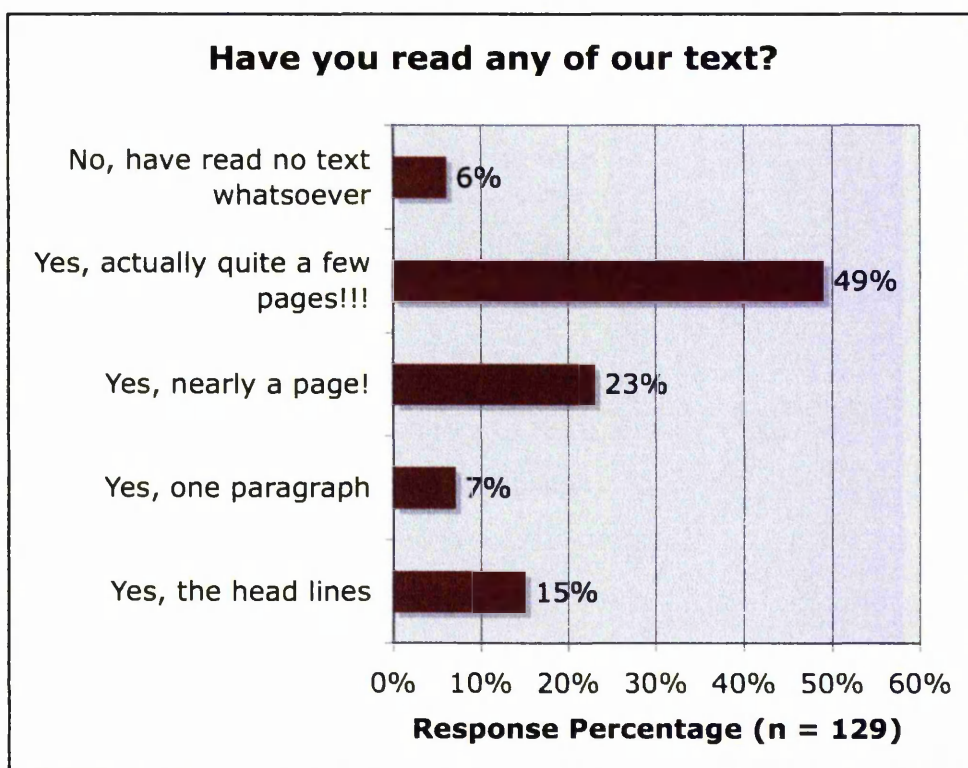


Diagram 16: Results of question 8 of the site usage survey: 'Have you read any of our text?'

Furthermore, we enquired into whether respondents thought we were giving enough detail in our texts. Of the 129 respondents only 5% stated that the information given was 'too detailed', 13% stated 'not enough detail' and 74% ticked 'about right'. 8% of respondents ticked 'other' and formulated their own answer most of which suggested that respondents had not read our texts yet. Lastly, question 10 enquired whether Sex-and-Relationships had met visitor's needs to which 87% responded with 'yes' and 13% with 'no'. This was followed by a question on whether respondents were planning to visit Sex-and-Relationships again to which 94% answered 'yes' and 6% 'no'.

Again, I was delighted to see our strategy confirmed by the data, which suggested that the combined sexual health and relationship skills focus as well as the in-depth texts seemed to match our audience's needs.

The final two items in the site usage survey invited respondents to leave open-ended comments with both items being optional. The first question asked 'What did you get from this website?' and received 59 entries. Answers were very diverse, but in line with the

theme of Sex-and-Relationships confirming our direction for the project. The list below shows entries 15 to 35 as participants had typed them:

1. nothing at the moment
2. Refresher on TA and intimate relationships. References for professional development. Useful and brief.
3. knoweldge
4. Info about the games
5. good info.
6. skill on bed
7. A lot of insight into the dynamics of my relationship with my partner.
8. a detailed explanation of female anatomy
9. enjoyment-an orgasm-a nice connect-i am house bound with a back injury
10. Too early to say
11. good insite into relationship
12. i got the information that i needed, i just need to refer to my calendar and work out the dates
13. How to work on prejakulation problem.
14. hopefully advice
15. very good web site for our life
16. Practical use of TA
17. Various information.
18. understand that it is part of ongoing research
19. informaion about my vaginal anatomy
20. I was looking at the information initially about men's view of sex and relationships because I have felt confused in the past. Was very helpful and supported some of my experiences/observations. I also enjoyed reading about the psychological games model - have been there seen many of those games in my personal and professional life. I now feel I can begin to stop myself from being pulled into the games or a least be very aware of what is going on.
21. I got some information about how to go about looking at the problems I am having in my relationship, and how to ask about the problems, and also some new ideas to try.

The second optional question was 'What would you like to find on this website?' which received 50 entries. Some of the entries for the second question helped us to plug gaps in our range of content such as the following: 'a full treatment on the subject of oral sex', 'clear statement of 'ownership': who's written it/paid for it'. The only entry, which did not support our decisions for Sex-and-Relationships was the following: 'a little less on the he/she responses, it can get a little confusing'. All together the entries were interesting as another window on our participants' information needs. Below is a list of entries 36 to 50:

1. sex
2. working with sexual fears and inhibitions in your relationship.
3. and mygirlfrieds... um clitoris hurts her to even touch. ive read that its probably smegma and she needs to get cleaned but im not sure how to approach her on this subject.
4. more links... more information. ie you talk about fantasies but the information is very general almost generic..
5. would also like information on why women are not as sexual as men... or are they? maybe even some links to other ways to increase libido..natural supplements.. or advise on viagra and womens libido how to increase
6. seex
7. More links to resources and/or a list of helpful books that are related to each topic. This site was a good head start for working on intimacy issues, but now I want a book or two that discusses good massage techniques.
8. It is a wonderful site
9. female masturbation & orgasm help
10. Information to make sexual relations pleasurable and satisfying
11. well i think the page is great but it would be good to see a page of how can a women experience or have a great orgasm and things like those you guys know like things for women and how can we have great sex but without hurting youre back.
12. ?????
13. nothing else
14. more information
15. improving sexul
16. informationen regarding studies about Cunnilingus
17. a little less on the he/she responses, it can get a little confusing

Finally, additional data about the development of Sex-and-Relationships from August 2007 until December 2007 came from the analysis of the dialogue between Rod and myself. During this time we met once, had 16 telephone conversations about the project and exchanged 132 emails. The most frequent theme of our conversation was friendship (82 instances) followed by update (69), jobs (35), technology (16) and reflections (10).

5.2.7.2 Issues in the development of Sex-and-Relationships August till December 2007

As already mentioned above we split the content of Sex-and-Relationships into two domains during August 2007, which seemed to have a big impact on visitor numbers. However, it is impossible to ascertain a causal link between the two events as other known and unknown factors could also have impacted visitor numbers. Splitting the content showed that our work had been concentrated on the sexual health aspect of the project and that the content for emotional literacy and relational skills needed much more development.

Additionally, we continued to focus on getting more incoming links to Sex-and-Relationships and to develop more dialogue about the project. To ascertain the impact of our efforts in this area I was still hoping to find a better, more reliable way of counting incoming links than our attempts with Yahoo. Rod subsequently found another free, web-based Google software package which allows webmasters to collect information about their website such as number of back links. We subscribed to Google Webmaster Tools¹¹ at the beginning of August.

Rod on web links

Tuesday, August 7th, 2007

Wow, another door opens. Amazing how much information one can actually get on the web once you know where to look. That new webmaster central tool from google is really very neat! So we have loads of links, more than 500, just that most of them are not very useful, i.e. they are not from very high ranking pages. It's fantastic though to be able to look at what is there and where people have linked to us from. It might be worthwhile to really have a closer look through them (...). Plus which pages rank highest and what search terms are people using. One can even have a look at just the search terms in Google India! That's just amazing.

Google Webmaster Tools counted the number of our incoming links at 500 on the 7.8.07 whilst on the 23.9.07 the number of links had increased to 701 and to 848 by the 28.11.07

Our visitor numbers finally picking up generated a lot of excitement for me. After all, an action research project needs to be in part evaluated through its pragmatic outcomes. It was important to me as the researcher that I could show that our work on Sex-and-Relationships had improved the number of people accessing the project. With respect to our position within the search engines the best position Sex-and-Relationships achieved overall was to be ranked at 31st position in Google.com for the search term 'sex' in November 2007.

OH MY GOD, IT'S WORKING!!!!

Friday, August 31st, 2007

This is just soooo amazing! It's working, well it least it did yesterday!!!! We doubled our already high figures on the 30th of Aug to an all time high and 46% of our traffic came from Google referrals. This is it! It's fantastic. The number of back links in Google webmaster tools hasn't changes yet, but I can only explain this shift to myself via the links... Let's just hope things stay stable for a while. Maybe it's been the separation of domains? I am soooo excited! WOW, and I got 4 new email

¹¹ URL: <http://www.google.com/webmasters/>

queries, no wonder they arrived over just a few days after our new fame. This is amazing... I have already said this, haven't I. I think I will sit in front of this screen now all night just staring at Google Analytics, just to be sure. (...)

I continued to concentrate on answering email queries writing 1 page per fortnight content and writing to other practitioners and organisations for links and exchanging comments about our sites. With respect to the research aspect my blog continued to be invaluable as a way of articulating my ongoing reflections and compiling a literature review as I wrote about each article I read. In response to the Health On The Net Foundation's (2007) guidelines and an entry in one of our surveys I added a disclosure statement about our funding and an advertisement policy to the project. The email advice service seemed to be working well and I continued to answer emails on a regular basis (see analysis of the email advice service during 2007 below).

5.2.7.3 Reflections on Sex-and-Relationships August till December 2007

Our range of online monitoring software was able to give me instantaneous access to figures about Sex-and-Relationships, which made it easy to monitor some aspects of the project. When the figures indicated that the project was going well at the end of August I got very excited, which spurred me on to do more work on Sex-and-Relationships. On the other hand, the technology recorded every small fluctuation in numbers and on days where the project was doing less well I easily felt discouraged. It was as if the availability of daily figures invited me into a 'boom and bust' attitude towards the project making it harder for me to sustain my long-term investment. By mid September I managed to disengage from the daily figures a bit and revert back to a long-term frame of reference.

Back to the computer

Saturday, September 15th, 2007

The way Rod is approaching working on the web is making more and more sense to me. He is, generally speaking, not looking at the figures, I think and keeps doing what he is doing. I would think that helps to cushion the web master against the inevitable boom and bust cycles you get. It makes sense to just keep working away at things rather than get all excited or disappointed. Neither feeling is that good for the steady work that is needed to develop such a large project. Will hopefully allow myself to stand back from it a bit more and see how things develop over time.

This long-term frame of reference for the development of online health information became more and more important to me. It had taken nearly two years to develop Sex-and-Relationships to a point where we had established the core of a useful service, however, much more remained to be done in terms of content and user involvement. Additionally, the online environment demanded ongoing flexibility and maintenance to make sure the project optimised its position on the web. It seemed as if the project was now in a gradual maturation process after we had set up the main aspects of the project. Both input to develop the project's position within its online environment and to develop further content and interactions with users were required to continue this maturation process.

As Sex-and-Relationships became more efficient and I continued to be open for dialogue I started to reflect more on how the project could make a positive impact on people's lives. With the project having developed as far as it had it became a possibility for us to link in with grass roots organisations to tailor our content to the needs of their members. For example the work of Pillsbury and Mayer (2005) on the 'Women Connect!' project, which focused on developing communication strategies for women's NGOs in third world countries offered many possibilities for exchange and co-operation.

Women Connect!
Friday, December 21st, 2007

(...) the Women Connect! project is about supporting NGOs in developing countries to develop better use of media to promote women's rights and health. This is really what my project would be about, to develop the knowledge of how to build up web resources and support women globally. I would love our site to be able to support people directly in the developing world, but also the investigation I am doing with the PhD is really about giving others the knowledge about how to build up a project like this themselves. The web site I have found for them is called Communication Institute so will keep checking on what's happening with them. Of course I need to write the PhD before I get sidetracked with this stuff, but maybe I can pursue this much more when it's done. This is really what it is all about.

Main themes August till December 07: More action
<p>Data collection: Through a minor mistake we lose our online data in Google Analytics as well as all figures for August 2007. From September 2007 onwards we receive between 1,203 and 1,454 daily visits on average. However our 'bounce rate' also increases to above 40%, which means we receive between 691 and 847 daily visits, which involve more than one page being viewed.</p> <p>Our fourth web-based survey is completed by 152 respondents and provides us with information on how they used Sex-and-Relationships.</p> <p>We gain more reliable figures for numbers of back links through Google Webmaster Tools which initially records 500 back links, a number that increases to 848 in November 2007.</p>
<p>Online advice: Functioning well, we receive 68 queries addressed to Anna in 2007, and 13 addressed to Rod, 4 of which are also sent to Anna. The contact page is finalised and includes a suggestion to write to us again should the respondent not hear from us (see appendix 4).</p>
<p>Cost/sales: No further costs, sales increases slightly though not proportionally to number of visits. The site earns £445 in revenue.</p>
<p>Development process: Splitting the project to be hosted on two web domains to improve our content focus for the search engines seems to have been the most important, single intervention for the project with respect to numbers of visits.</p> <p>I continue to write 1 page of content per fortnight for the website and initiate more external dialogue with colleagues through writing for link exchanges.</p> <p>The project seems to be in a maturation process and continues to need ongoing maintenance to hold the achieved position online.</p>
<p>My position: Excitement over increased numbers of visits, which seems to validate our decisions for the project. I get easily disappointed with the daily fluctuations in visitor numbers and decide to detach myself more from the daily numbers and re-focus on long-term development.</p>

Table 8: Summary of main themes emerging August 2007 until December 2007

5.2.8 'Hi Anna' 2007: The second year of the email advice service

During the second year of operation I received 68 queries through my 'female' email address of 'anna@sex-and-relationships.com'. 34 of those suggested a female enquirer through their disclosed details or chosen name, 29 suggested a male enquirer through their disclosed details or chosen name and 5 remained ambiguous as to the author's sex. 54 of the names used by participants suggested a Western cultural background whilst 14 participants used non-Western names.

Most enquiries related to topics about sexuality, namely 45 in total, whilst 16 questions concerned relationships issues and 6 requested other things such as a link exchange. The

table below shows a list of the sexual issues participants requested more information on. The relationship issues participants asked about were very varied including emotional issues and relationships problems with a partner or other family member.

Questions on sexuality	Frequency
Lack of good sex	6
Female orgasm or anorgasmia	6
Sexual fantasy	5
Female sexual physiology and anatomy	4
Anal sex	3
Retarded ejaculation	3
Erectile dysfunction	2
Sexual abuse	2
Vaginismus	2
Low sexual desire	2
Male sexual physiology and anatomy	2
Sexual addiction	1
Sensate focus	1
Hypospadias	1
Partner wants too much sex	1
Oral sex	1
Inappropriate sexual behaviour	1
Cross dressing	1
Premature ejaculation	1
Total	45

Table 9: List of sexual issues enquirer's requested information on via the email advice service of Sex-and-Relationships during 2007

From a total of 68 enquiries, 46 involved a single exchange of emails whilst 22 developed into longer dialogues, the longest of which has resulted in 15 emails by the enquirer and 13 responses from me and is still ongoing. 36 out of 68 questions involved a complex issue, which impacted more than one area of the enquirer's life and which required full use of my professional expertise as a psychotherapist to answer appropriately. 31 out of 68 enquiries were simple, which could be answered with a single piece of information and required no specialist skills on my part. For one email this distinction did not apply as it requested a link exchange with another website.

59 out of 68 emails were composed in excellent English and 9 out of 68 emails were composed in basic or moderately good English.

After concluding my analysis of all emails received during 2006 I became curious as to how long it took me to answer individual queries. Through monitoring the first 10 replies I sent in 2007 I established that I needed on average 40 minutes for each reply, which constituted a sizable time commitment on my part. Additionally, I aimed to keep the time I needed to get back to the enquirer as low as possible and I succeeded in the majority of cases to limit it to 4 days at most.

As in the previous year I continued to send out an additional email about 1 week after my first response to a query inviting the recipient to give us anonymous feedback via a web-based survey. The survey was identical to the one used the previous year. I received 20 entries in total in 2007, 10 of which were from women and 10 from men. With respect to age groups 5 stated they were between 16-19 years old, 4 stated 20-29 years, 4 stated 30-39 years, 5 stated 40-49 years and 2 gave above 50 years as their age. The majority of respondents identified their sexual orientation as heterosexual, namely 17, 1 as homosexual and 2 as bisexual. The most common location for enquirers was North America, 13, followed by Europe, 3, and South America and the Far East with 2 each.

To the question whether they had received my response to their query 18 participants stated 'yes' and 2 stated 'no'. Additionally, the 18 participants, who received my response, also stated 'yes' for having read it. Only 15 stated that they had expected us to get back to them whilst 5 suggested that they didn't expect to hear from us.

To the question whether I had addressed their query 18 respondents replied with 'yes' and 2 with 'no', and we received 19 additional comments about what had been useful to participants. Most responses were very positive about my response, 2 suggested my answer had only partially addressed their concerns and 2 suggested that the enquirer had not received my original email. Of 18 responses to our question about how we could have improved our answer most respondents suggested no further improvements, 2 would have liked a more detailed answer and 1 respondent referred to the fact that he or she had not received my original reply.

Additionally, the email advice service feedback survey enquired into the options for ongoing dialogue with participants. 16 respondents answered yes to the question of whether I had offered them an ongoing dialogue or not. Subsequently, only 9 participants stated that

they had taken up my offer of an ongoing dialogue about their issue and 11 respondents stated they had declined the offer. 7 respondents offered us further insight into their reasons behind declining my offer with 3 suggesting 'lack of time', one respondent stated 'no particular reason', one that he or she was waiting for circumstances to put recommendations into practice and one that his or her question had been answered. 13 respondents left us an additional comment at the end of the survey as shown in the list below:

1. I am very pleased that you are able to offer some help if though you are not in the same room as I am.
2. the response time was very fast
3. anna gives more information, i like that because it helps.
4. It is a very good service. Please keep it up...at least some help was received, which is better than no help.
5. Very helpful. Appreciate it!
6. It would be great if you had a instant messenger service where you could be on like a certain time and speak with one of you.
7. I been giving out the link to your website.
8. It's really useful - I wouldn't know how to go about seeking sexual counselling otherwise. I was able to put a lot of very explicit bottled up feelings in my e-mail in a non-judgemental, non-threatening forum
9. Very kind and helpful!
10. It would be helpful to have the bio's or CV's of the responders. For example Anna is in private practice, however there is no name or contact info.
11. Congratulations on the service, I do appreciate it and think it's admirable that you actually take the time to read emails and reply to them, even if it's for research.
12. i don't know if maybe i was over looked or what but i was hoping for some sort of actual awnser.
13. Only sent my follow up email yesterday,so no answer yet. I really appreciate having someone to ask the most personal questions to, without embarassment.

The above analysis of emails to Anna at Sex-and-Relationships needs to be treated with some caution as only 20 out of 68 service users responded to it. Additionally, respondents were self-selected and it must be expected that service users with a positive experience of the service were more likely to engage with it further and respond to the feedback survey. One very obvious result of the feedback survey was the fact that 2 of the 20 respondents had not received my earlier email replying to their query. Given the amount of time I spent answering each query, namely on average about 40 minutes, a lost email represented a big waste of time, energy and commitment on both my part and that of the enquirer. As a way of managing the possibility of emails going astray I immediately amended the contact page

for the email advice service (see appendix 4 for the final version) by adding the following suggestion:

'If you haven't heard from us within 1 week: Please assume our reply to you has got lost! Currently, we are answering all queries which people send to us. However, from our follow up survey it appears that some of our replies do not arrive. Firstly, please check your spam filter. Secondly, please check my blog, I may be on holiday. Thirdly, assume we have replied, but our email got lost. PLEASE WRITE TO US AGAIN AND LET US KNOW! I spend up to 45 minutes answering individual emails, the last thing I would want is for it not to arrive in your mail box!'

Overall, participants to the email advice service gave us very positive feedback about the service. Additionally, I could use many of my replies to individuals in amended form to contribute to further material for the website, allowing Sex-and-Relationships to develop according to the needs and interests of service users. Also, it was really positive and encouraging to be engaging with actual people about their issues and our project. It reinforced the fact that Sex-and-Relationships could offer visitors information and some help, which made it a worthwhile endeavour.

During 2007 Rod received 13 emails excluding 4, which had been sent to both of us.¹⁰ emails were written by men and only 3 by women. 4 developed into longer dialogues, whereas 9 enquirers did not follow up Rod's response to them. Topics, which respondents enquired about, were in line with those sent to anna@sex-and-relationships.

The imbalance in numbers between emails sent to Rod's email address and those sent to Anna continued to be quite large. One explanation would be that service users simply click on the first listed email, which is the one for Anna. However, it could also be argued that both email addresses are displayed close to each other and that it is equally easy to click onto either of them with a mouse, the bottom one, Rod's email, being closer with respect to a right-handed movement with the mouse from the bottom right to the top left corner of the screen. It seems highly likely that enquirer's purposefully selected asking a female professional questions rather than a male.

5.3 Sex-and-Relationships – a two-year journey

5.3.1 Summary of demographic data and qualitative content analysis

In the following section I will present the demographic data collected through the web-based surveys over the two-year period of this study as well as the overall counts for themes from the qualitative content analysis of my dialogue with Rod.

In total 559 respondents completed the demographics section of the web-based surveys of this study giving details about their sex (see diagram 17), sexual orientation (see diagram 18), age (see diagram 19) and geographical location (see diagram 20).

The data shows that our average participant in the self-selected surveys was male, heterosexual and located in North America. Age distribution was fairly even above the age of 20, suggesting that Sex-and-Relationships was reaching a wide spread of its target population of adults.

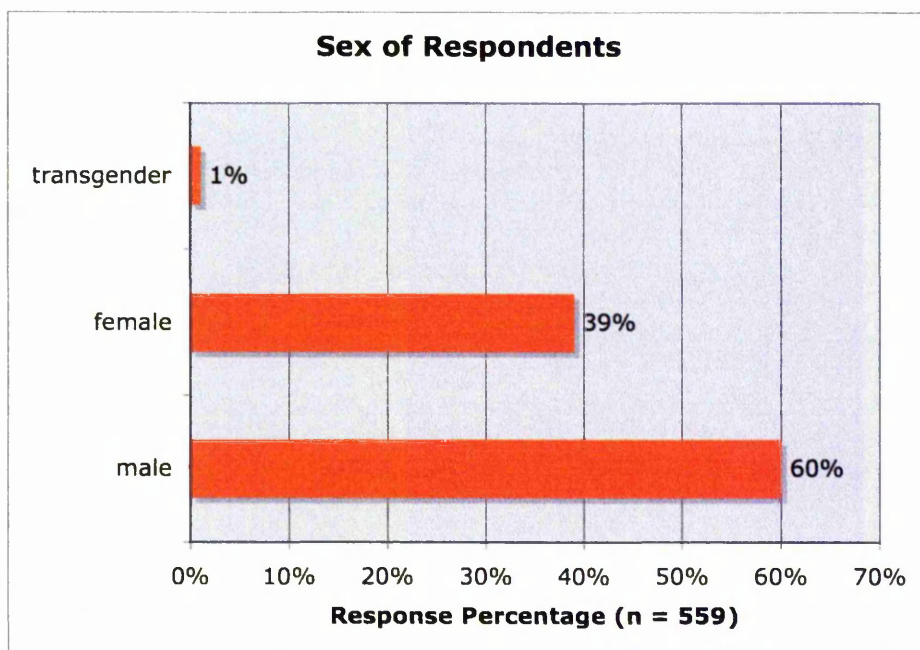


Diagram 17: Stated sex of respondents of all web-based surveys (n = 559)

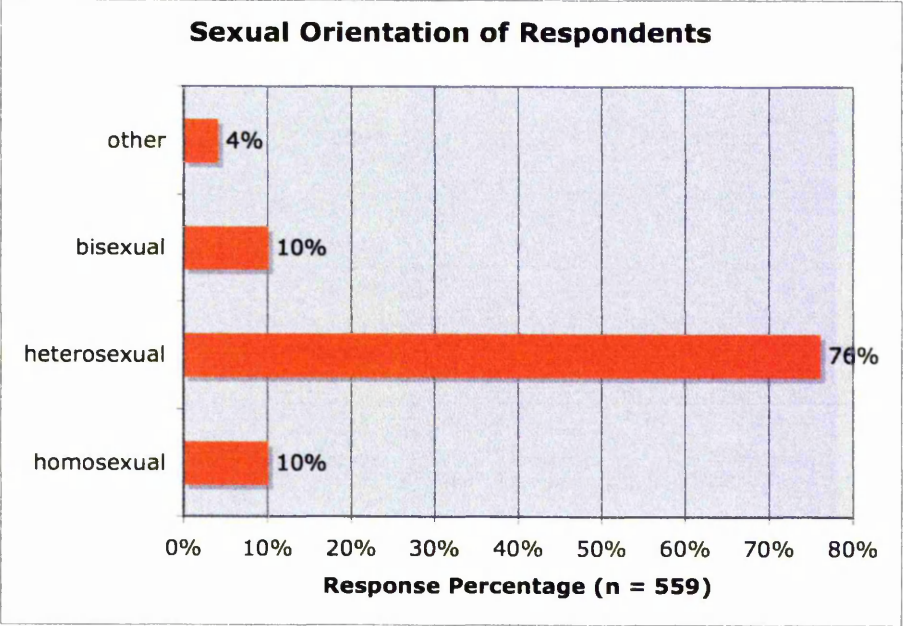


Diagram 18: Stated sexual orientation of respondents of all we- based surveys (n = 559)

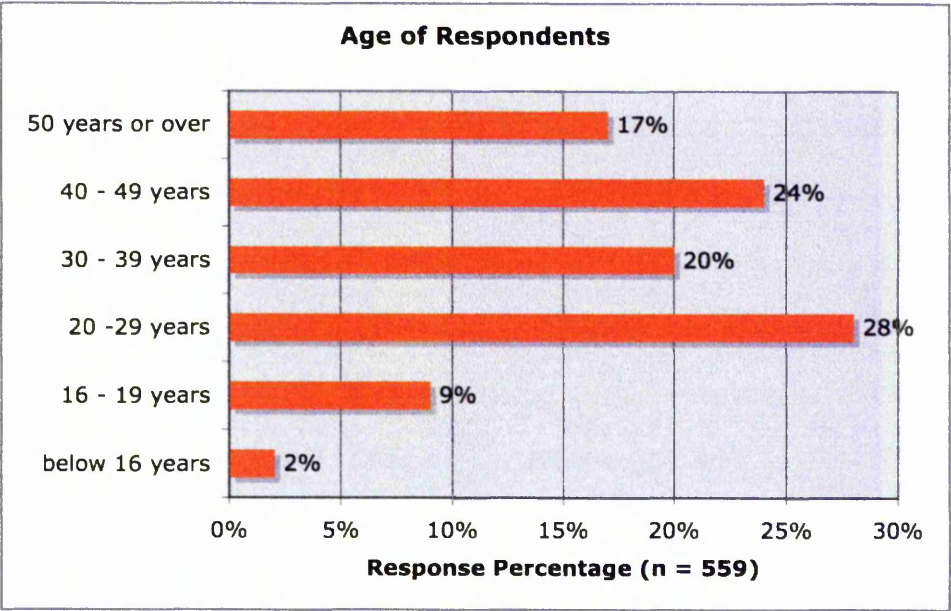


Diagram 19: Stated age of respondents of all web-based surveys (n = 559)

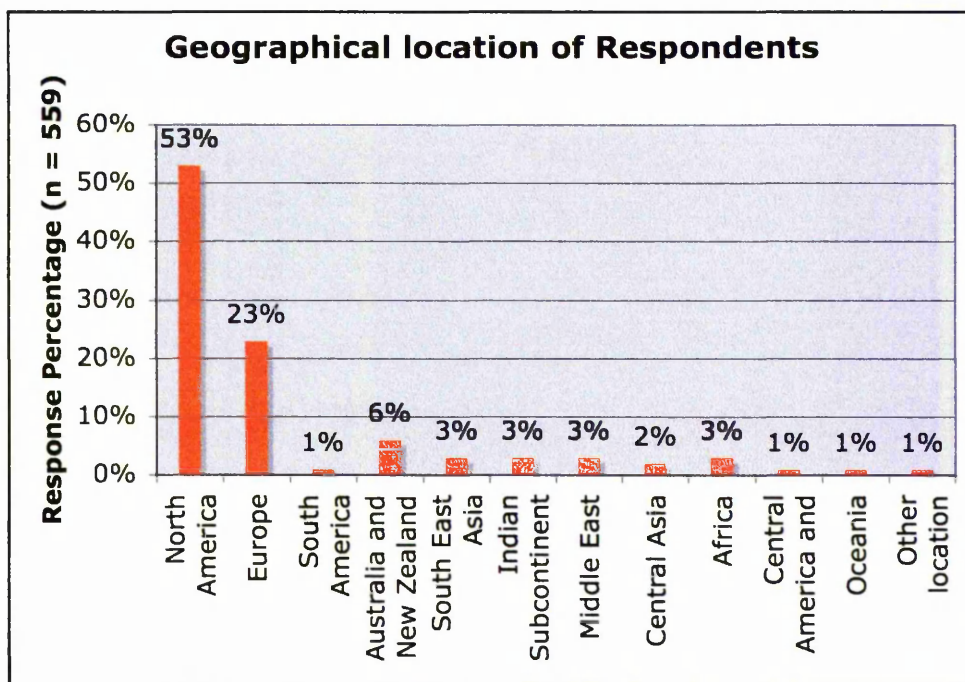


Diagram 20: Stated geographical location of respondents of all web-based surveys ($n = 559$)

With respect to the analysis of the ongoing dialogue between Rod and myself we exchanged in total 445 emails, made 45 phone calls and had 5 meetings over the two-year period. The most frequent themes, which emerged from the qualitative content analysis, were friendship (270 instances), update (181 instances) and technology (96 instances). Table 10 gives a full list of themes and their respective frequencies. Definitions of themes can be found in appendix 2.

Themes of the dialogue between project partners	Instances
Friendship	270
Update	181
Technology	96
Jobs	89
Sales	47
Reflections	35
Data	35
Online advice	31
Design	29
Content	22
Blog	19
Google	19
Our relationship	12
Writing	12
PhD	11
Web	10
Ideas	10

Table 10: List of all themes of the qualitative content analysis of the dialogue between the two co-authors and their respective frequencies

The results of the qualitative content analysis of the complete dialogue between Rod and myself strongly underlined the theme of friendship. Although I was fully aware of the importance of my relationship with Rod for the project, I was nevertheless surprised to see how big a part of our work our relationship had been. To me this confirmed how much of the knowledge created in this particular action research project constituted relational knowledge (Park 2001) and dialogue as an outcome (Frankham and Howes 2006). Additionally, it was surprising to realise how little actual contact we had had over the two years and how well we still managed to co-operate. This result suggests that good co-operation between practitioners is much more important for the development of successful online projects than technical expertise.

5.3.2 Summary of the findings

Sex-and-Relationships was developed into a successful service with 1,276 unique visitors on average per day in November 2007, the month in which visitor numbers were highest. The development of Sex-and-Relationships was achieved through a practitioner-led approach of a team of two co-authors with limited technological knowledge.

The measure of 'bounce rate' describes the percentage of visitors, who only accessed one web page before clicking away again. It is suggested by Google as a measure of quality of engagement of visitors with a website. A bounce rate of 40% in November 2007 showed that only 60% of overall daily visitors engaged with the site in more depth by visiting more than 1 page.

Feedback from a small sample of visitors through self-selected, web-based surveys was mostly positive and often suggested further improvements. Overall 559 participants completed one of the 4 self-selected surveys of this study, 60% of which were male, compared to 39% female and 1% transgendered individuals. The majority of participants in the surveys described themselves as heterosexual, namely 76%, whilst 10% described themselves as bisexual or homosexual respectively. 89% of respondents to the surveys were over 20 years of age and only 11% of participants stated their age as below 19 years, suggesting that Sex-and-Relationships reached its target population of adults. Especially encouraging were the 17% of participants who gave their age as over 50 years of age suggesting that Sex-and-Relationships was engaging some older adults despite potential technological and social barriers. Geographically, most visitors, namely 50% accessed us from the USA, 6% from the UK and India respectively, 5.6% from China and 4.5% from Canada during November 2007.

With respect to the look of Sex-and-Relationships, we employed a graphic designer to create a consistent and inviting design for the site. We decided on warm colours and minimal navigational elements as well as a prominent logo banner in line with Williams et al's (2002b) suggestion. For the web programming itself we used a very basic web design software package, namely Microsoft's Frontpage, as well as limited the web design to simple programming elements. This was to increase usability for us as practitioners, as well

as maximise accessibility to users through simplicity and increased speed at which the website could be downloaded.

Considerations regarding the content for the site focused around explicitness of descriptions of sexuality and relationships. Smith et al (2000) recommended the use of blunt language, which we followed. Issues around explicitness versus conforming to cultural norms may be unique to sexual health content, but may also be an important aspect of education in other health fields. Another consideration with regards to the content was degree of detail of texts. Williams et al's (2002b) study suggested that too much text is unwelcome, however, their research did not use real health consumers for the evaluation. The data in this research study suggests that detailed content was well received by service users as 74% of a self-selected sample stated that the amount of detail was 'about right' (n = 129). Similarly to the study by Young et al (2002) some participants to the self-selected survey requested more detailed text, namely 13%, whilst only 5% stated our texts were too detailed.

Further choices we made for Sex-and-Relationships was limiting the length of our sentences to improve readability, but using our standard vocabulary and correct medical terminology. The results of the language survey suggest that Sex-and-Relationships could improve its accessibility by checking the reading level its texts require and by adding a glossary to make terminology more accessible. Our gendered story lines were mostly not commented on by service users. However, as authors we believe that the gendered voices add diversity and are appropriate for discussions on sexual health (Lunin et al 1997).

The most accessed pages on Sex-and-Relationships were the pages about sex positions, the homepage of Sex-and-Relationships and the pages on female sexual anatomy. This is similar to what Barak and Fisher (2003) reported for Sexualityandu, namely that the most frequently accessed pages were on sexual relations, male and female anatomy and masturbation, which is also in line with the findings of Gilbert et al's (2005) study. These findings suggest that service users are very much interested in information on sexual wellbeing and sexual growth and that sexual health projects need to be prepared to discuss sexual relationships openly beyond references to illness and sexual dysfunction. Additionally, these findings confirm the appropriateness and importance of a sex-positive approach (Bay-Cheng 2001) to an online sexual health website.

Costs could be kept to £450 over the two years, which were covered through advertisement and commissions from sales. This brings developing online health promotion projects within reach of individual practitioners and small NGOs. However, the considerable investment of the two co-authors in terms of time, effort and expertise could in no way be adequately remunerated through the sums generated through the project itself. This suggests that online health projects in general may need budgets, which cover the ongoing involvement of health professionals or can rely on continuous voluntary input from practitioners.

The email advice service received over 100 enquiries in total over 2 years, which is far less than what other projects have reported (Pinnock and Jones 2003). Answering emails was found to be time consuming and requiring considerable expertise, which would have made higher volumes of enquiries impossible to manage by two practitioners alone. The email advice service also developed into an ongoing information needs assessment of service users, thereby constituting an essential part of the project.

Working online was often a lonely and frustrating experience as the internet seemed an impenetrable environment making direct contact with service users a rare occurrence. Moreover, the development process took much longer than expected and required considerable stamina and discipline in the absence of immediate positive feedback. The relationship between co-authors was found to be the most important feature supporting the development process. Overall, dialogue constituted a principal process as well as an outcome of this study.

The requirements of the online environment notably by Google became an integral part of the development process requiring continuous input, which required ongoing practitioner involvement for best performance. The development of Sex-and-Relationships must be seen as an ongoing, evolutionary process rather than a brief period of service development followed by static service delivery. Furthermore, Sex-and-Relationships required time to embed itself within the online setting as it only slowly built up links and connections to other online services. Therefore, online projects may require a period of maturation similar to offline services to establish themselves fully.

The most accessed web pages on Sex-and-Relationships were the home page and the pages on sex positions and female sexual anatomy. This underlines the appropriateness of a sex-positive approach as visitors favoured pages on sexual wellbeing and development.

5.3.3 Invitation

Before moving on to a discussion of the results of this research study, I would like to invite readers to assess Sex-and-Relationships for themselves. To do so, please go to

<http://sex-and-relationships.com>

Please have a look around and read some of our texts. The following questions might assist you in deciding on your own opinion about Sex-and-Relationships:

- What is your first impression of the website?
- Which information do you find useful or interesting?
- What do you not like about Sex-and-Relationships?
- What other topics would you like Sex-and-Relationships to cover?
- Do you have any concerns about Sex-and-Relationships?

6.0 Discussion

6.1 Introduction to the discussion

Over the two-year period of data collection for this study the work on Sex-and-Relationships provided a multitude of data. This richness of data would make it possible to discuss many different aspects of the findings of this study whilst also making it easy to lose focus. The following discussion will loosely follow the research questions as a way of structuring points for discussion. Additionally, data analysis and interpretation are closely linked processes in action research. Therefore, some discussion has already been included within the main results section.

6.2 Developing Sex-and-Relationships

6.2.1 Visitor numbers

One of the obstacles encountered in this study was how to gather meaningful data about Sex-and-Relationships. One single measure, namely daily average visitor numbers, seemed wholly inadequate to represent the complexity of how visitors engaged with the project and to represent 'success'. A series of data gathering methods was needed to be able to evaluate and develop the project further. Quantitative figures for overall visitor numbers only offered one perspective on Sex-and-Relationships whilst the web-based surveys, data from the email advice service and its feedback survey as well as the sales figures offered us important additional perspectives onto Sex-and-Relationships. The issue of meaningful data is highlighted by the confusion apparent in the literature about figures from server logs and varying measures for visitor numbers (Wilson et al 2001, Young et al 2002, Pinnock and Jones 2003).

The degree of use achieved for Sex-and-Relationships is comparable to the results reported by other studies on online health education such as Barak and Fisher (2003), Linke et al (2004) and Gilbert et al (2005) with respect to visitor numbers. For example, Barak and Fisher (2003) reported 1,100 to 900 unique visitors per day to the website Sexualityandu, whilst we recorded 1,276 unique visitors on average per day during November 07.

Although the use of visitor numbers is a quick and useful way of measuring 'success' for an online health promotion project, the figures can be misleading. The added measure of bounce rate, which is the percentage of visits which only access one web page before clicking away again, is seen by Google, who offers this measure as part of their website monitoring tools, as a measure of quality of visits. The higher the bounce rate the more visitors must be assumed to be turning away again from a website after a brief glance. The bounce rate for visits to Sex-and-Relationships during November 2007 was just over 40% suggesting that only 847 visits per day involved a deeper engagement with the project. Comparative figures for bounce rates are not available in the literature.

It seems that numbers of daily visitors or visits alone are inadequate to represent a useful measure for visitor engagement and should at least be supplemented by a bounce rate to help create a clearer picture. Additionally, the field of online health promotion would benefit greatly from consistent ways of measuring visitor numbers and bounce rate when reporting on health promotion websites to allow comparisons between the findings of individual studies. However, it is possible that even if the community of practice of online health promotion researchers adopts a unified approach for one or two measures to quantify website usage, the technology of the internet will continue to change rapidly and ways of measuring may be changing with it. This was seen in this study over only two years as Google Analytics updated their software introducing the measure of bounce rate towards the end of this study and with Yahoo when measuring back links. Therefore, it may be an unattainable ideal in online health promotion to develop standardised measures, which allow for comparative figures of how online health projects are used by visitors.

6.2.2 Missing health professionals

This study shows that it is possible for practitioners to develop a web-based health promotion project on a very limited budget, which can be as successful as projects with bigger budgets (Barak and Fisher 2003, Pinnock and Jones 2003, Linke et al 2004, Gilbert et al 2005).

The internet seems to be an ideal medium for practitioners to develop their own presence. It is convenient and easy to use for clients and practitioners can reach potentially more than 1.2 billion internet users (Computer Industry Almanac 2006) with nearly negligible costs

and limited technological skills. It is not surprising that some health promotion specialists talked about online health promotion as the 'eHealth revolution' (Noar et al 2006).

What does seem very surprising however, is the near complete absence of health practitioners themselves from the 'eHealth revolution'. The only piece of practitioner-led research found for the literature review of this study was Hall's (2004) pilot study of online psychosexual psychotherapy. Benigeri and Pluye (2003) call for ongoing involvement of health professionals in the development of online health promotion materials, but few seem to have answered their call. Although some of the successful online health promotion projects must have had extensive input from health professionals at some stage, this is not commented on in the research reports (Graugaard and Winther 1998, Sciamanna et al 2002, Pinnock and Jones 2003, Gilbert et al 2005). Some of the more unsuccessful projects (Lenert et al 2003, Linke et al 2004, Anhoj and Holm Jensen 2004) seem to have got lost in technological expertise rather than using technology to communicate health professionals expertise suggesting that IT professionals were more influential in the planning of the project than health practitioners.

It seems paramount that health professional themselves claim the internet as a tool in their professional practice rather than leaving the field to either commercial interests, IT specialists or to big teams of professionals which necessitate public funding and are limited to set periods of time. Practitioners themselves are in a position of being continually grounded in their own work with clients and therefore more able to respond to clients' changing needs. Additionally, practitioners may be able to sustain a limited, but ongoing involvement with online projects thereby allowing for continuous adaptations rather than a one-off development phase followed by lack of maintenance, a style of working which does not support proper use of the intrinsic features of the internet.

One barrier to full contribution as a practitioner in this study was an issue about lack of technological skills resulting in a lack of ownership at the start of the project. The author found that having to go through an intermediary to publish text on the website resulted in a sense of distance and disempowerment. To be able to edit the live copy of the website and see changes immediately on the web was an important part of taking full ownership of the online project. I believe it is important for practitioners themselves to take control of authoring content for the web rather than going through intermediaries. The necessary

technological skills may seem daunting to health practitioners at the beginning, but do not constitute an insurmountable barrier. Practitioners continuously update their own skills to keep up with developments within their fields. Given that the internet offers such a convenient and seemingly unlimited potential for our work basic web editing skills could be seen as important new skills that all health practitioners should acquire.

In addition to technological barriers practitioners may also feel daunted by the time commitment involved in developing online projects. Unfortunately, this research study could not show that a successful online project could also earn enough revenue to offer financial rewards to health practitioners, however, it is possible that other projects may very well achieve this goal. However, developing online health resources could also have other, non-financial rewards for independent health practitioners such as increased professional standing, a source of data and materials for professional articles, fulfilling requirements for ongoing professional development or being part of an advertisement and marketing strategy. Moreover, practitioners not only need to claim the internet as a platform for their work, but also the research which will support the development of best practice in this field. Only if practitioners themselves research their own work will the knowledge they generate be fully grounded in practice, which is useful to other practitioners and prioritises client's needs.

6.2.3 Missing authors

My relationship with Rod as my co-author was the most crucial element in the development process as shown by the results of the qualitative content analysis of our dialogue. It is evident that we needed time to built up trust and an effective working relationship over the first year. The longer the project continued the more supportive and effective we became as a team. Often, Rod's encouraging words were able to balance out the black hole effect (Suler 1997), which I experienced as a sense of silence and disconnectedness from the online world that Sex-and-Relationships inhabited.

An absence of meetings and few phone calls between co-authors suggests that it is possible to co-operate purely online when developing an online health project. On the other hand, the co-authors shared an extensive training background, a friendship, the same educational

level and a Western cultural background. It must be assumed that co-operation purely through online channels would be a lot harder without these communalities.

Given the centrality of the relationship between co-authors in this study it is surprising that in general no mentioning is made about authors of online health promotion projects and the relationships they have with each other in the literature. The people who design online health promotion projects are absent from reports and how they impact and inform design choices is unknown. Additionally, reports stay silent about who commissioned online health promotion websites or the research into them.

This silence does not allow readers to gain an understanding about how professional and personal backgrounds have impacted a project, which values are embedded in it and which power relationships have been enshrined in its structure and way of operating. The present author believes it is essential to make the people involved in online health promotion projects, the researchers, practitioners, authors and co-ordinators visible so as to acknowledge how individuals construct meaning and complete specific tasks in a situated and personal way. Additionally, forefronting the creative, often haphazard and dialogical nature of working online will give other practitioners a much more realistic picture of what is involved in this type of work and how they could position themselves differently according to their own values, background and professional experience.

6.2.4 Missing design choices

Developing online health resources that are able to successfully engage visitors is still an emerging practice. It is unclear at the moment how to best go about the design of such materials given that the internet as a medium is quite different to print media (Benigeri and Pluye 2003). Unfortunately, most of the published studies into online health promotion websites do not talk in-depth or at all about the design choices behind their projects or the thinking on which such choices might have been based (Sciamanna et al 2002, Wilson et al 2001, Young et al 2002, Barak and Fisher 2003). Only occasionally do studies comment on design choices such as using a friendly and encouraging tone and bright colours (Papadaki and Scott 2006) or a prominent logo banner (Williams et al 2002b). More emphasis seems to have been placed on behaviour change theories underlying content (Barak and Fisher 2001, Cummins et al 2003) rather than on issues about presentation of materials.

This means that practitioners or teams of health professionals who want to develop their own projects cannot work from and review already existing practice, but must start again from the beginning. As this study shows numerous different options exist online with regards to choice of language, choice of images and colours, use of interactive features and structuring of materials. Rather than assuming that clear answers already exist with respect to best practice the present author suggests researchers need to be much more detailed in their descriptions and reflections on the design choices made during the development of online projects to allow for better interpretation of findings and transferability of knowledge. This type of in-depth practice-based knowledge is essential to developing good practice and must not be overlooked by researchers. Practitioner-led, qualitative research is especially well placed to enquire into how projects need to be developed and how service users engage with them subsequently.

6.2.5 Design choices not taken

It is equally important to discuss design choices, which haven't been taken and to reflect on the impact these choices may have had on the success of a project. Overall, Sex-and-Relationships conforms to most guidelines developed by organisations such as the Health On The Net Foundation (2007) and other authors (Morahan-Martin and Anderson 2000, Cummins et al 2003). The only guideline of the HON (2007), which has not been fulfilled, is to disclose the names of the authors which would allow service users to check their credentials against independent sources on the net. We originally decided on anonymity to keep us as practitioners protected from possible online harassment. At the end of this study it is not clear as to whether this was a useful and necessary step or whether we overreacted to an imagined threat. Transgressive instances did occur, but these were always linked to people who knew us offline. As practitioner-led delivery of online resources develops so will hopefully our knowledge about threats and pitfalls for practitioners when working online.

Another design choice not taken was to include more interactive features on Sex-and-Relationships. Although interactivity is a strength of the internet as a medium, technically sophisticated elements such as interactive features take a long time to load over the internet. This might mean that fewer visitors use a technically sophisticated website as users get

impatient whilst waiting for it to load. Staying with basic technological building blocks may therefore improve accessibility and overall efficiency. Skinner et al (2006) suggest that websites need to be people-centred not technology-centred and some studies have reported negative outcomes, which were potentially due to an overly technology-centred approach (Lenert et al 2003, Anhoj and Holm Jensen 2004, Linke et al 2004). The present author suggests that care is taken when including technologically sophisticated elements into online projects. Just because interactivity or other features are technologically possible, does not mean that on balance they will result in benefits to service users. Higher technological sophistication must be assumed to limit accessibility with respect to ease of use and speed of loading and its benefits should be carefully weighed up against potential drawbacks.

One element, which was recommended by Barak and Fisher (2001) and Cummins et al (2003), was the use of a theoretical base of behaviour change theories for online health promotion websites. This strategy was not employed directly in the development of Sex-and-Relationships, however, as professionals we worked from a clear theoretical knowledge base albeit one grounded in psychotherapy rather than health promotion. However, both disciplines hope to create possibilities for new behaviours in individuals. A focus on behaviour change imposes a health professional's agenda on any health promotion project, namely one of changing knowledge and behaviours to support good health. However, this agenda may only be partly what service users are interested in with respect to sexual health and relationship skills. The findings of this study support the view that some service users are interested in finding solutions to health issues and relational problems, but many others engaged with Sex-and-Relationships in search of sexual development and entertainment. Such a discrepancy between clients' and health professionals' agendas seems to have been part of the very limited uptake of an online HIV prevention tool reported by Lau et al (2008). It is important to keep in mind that what might be useful and desirable to service users might be different from health professionals' agendas. It needs to be assessed in each case whether an underlying theoretical base of behaviour change theories can add to what service users require and are interested in, or whether it is mostly satisfying health professionals' concerns.

6.2.6 Contradictions in online sex education

Sex-and-Relationships fully supported a sex-positive approach (Bay-Cheng 2001) to sexual health education. More work is needed (see action points) to assure that the way sexuality and relationships are presented does not include negative discourses on sexuality (Fine 1988). However, this approach seems to clash with cultural taboos about sexuality, health professional's comfort zones (Weerakoon et al 2008) and the researcher's own conditioning. The author believes that the contradictions around sexuality (Jackson and Scott 2004) need to be challenged to diffuse stigma and encourage responsible actions and good health. This needs to include a challenge of the 'special' status sexuality holds in our and many other societies (Jackson and Scott 2004). This could also mean that sex educators have to openly acknowledge the possibility that some visitors may be looking for entertainment and sexual titillation when accessing educational materials online.

However, acknowledging the different possible agendas of visitors to a sexual health website is important if we assume that Gilbert et al's (2005) suggestion is correct, namely that a dose-response relationship exists between how often and how long a visitor engages with a health promotion website and the amount of impact such a project has on the visitor. Therefore, it is important that online health promotion projects including sex education websites engage the visitors with what they are interested in so as to maybe also be able to influence them on topics they might be less curious about. With respect to health education in general this brings up visions of information on healthy lifestyles and wellbeing whereas in the field of sex education professionals including the author seem to encounter their own contradictions and taboos about sexuality.

If sex education and Sex-and-Relationships in particular truly aim to continue in the tradition of health education to promote good health and wellbeing rather than manage ill health when it has occurred, sex educators need to challenge their own ways of reproducing the contradictions in our society's way of constructing sexuality (Jackson and Scott 2004). Additionally, online sex education projects for adults are woefully under-researched with only two studies by Graugaard and Winther (1998) and Barak and Fisher (2003) investigating individual websites. It seems as if the special status of sexuality has also silenced researchers.

6.2.7 The importance of using real visitors in evaluation studies

The findings of this study suggest that most participants of the self-selected, web-based surveys hosted on Sex-and-Relationships were very much interested in in-depth information, which is contrary to findings reported in the literature (Williams et al 2002b). Moreover, there seems to be an implicit understanding in the literature that online materials need to be short (Papadaki and Scott 2006) and potentially superficial to engage visitors. The only explicit exception to this rule being the study by Young et al (2002), which evaluated feedback from a self-selected sample of real service users.

This discrepancy highlights the importance of using naturalistic research designs to evaluate online health materials with the help of real service users rather than research designs, which prevent in-depth engagement with online materials (Williams et al 2002b), use unrealistic levels of incentives (An et al 2008) or use participants, who are neither a target audience for a project nor can be assumed to be interested in its content (Bates et al 2006).

It cannot be emphasised enough that to gain reliable and valid data on whether online health promotion projects do fulfil expectations projects need to be evaluated within their live online environment and through feedback from actual service users, a point which has also been emphasised by Benigeri and Pluye (2003). Williams et al (2002a) mention 'contextual enquiry' including interviewing and observing potential service users as one option to evaluate online health promotion websites, but continued to use students who cannot be assumed to be potential users of a health education website for the evaluation of a website in their later study (Williams et al 2002b). Other methods of evaluation not involving real users and not taking account of the actual online environment a website has to function in will be able to contribute interesting suggestions to service development, but cannot hope to answer questions about an online health promotion project's actual performance and impact.

6.2.8 Financial possibilities and options for evaluation

This study showed that Sex-and-Relationships could be built on a very small budget and be financially independent, however, the work itself could only be completed through ongoing

volunteer effort by the practitioners. This result shows that high quality online health information does not need to command a major budget as implied by Skinner et al (2006) and does not need a budget for advertisement and dissemination. Moreover, direct financial benefits for health practitioners developing online projects could still be a possibility and need further investigation. In the present authors opinion, health professionals should further investigate the possibility of earning some income through creating freely available online materials as this would mean that online health promotion projects would become truly sustainable over long periods of time and could even compete with projects run on purely commercial principles. Especially in the field of sex education it seems paramount not to leave it to the pornographic industry to provide information as is the current situation according to Cooper et al (1999) and Fisher and Barak (2000).

A further interesting issue, which arose through the financial concerns in this project, was the way earned revenue was used as an additional measure of a behavioural impact of the site and as one measure for effectiveness. Hopefully, Sex-and-Relationships will have had an impact on many visitors who did not purchase an item through the website, however, visitors who did so provided us with an additional, quantitative measure that the site had impacted them. Similarly, the absence of sales gave us another perspective on Sex-and-Relationships and sparked off many valuable discussions about how we might improve the effectiveness of the project.

Therefore, including an element of earning some income, for example, through a simple 'make a donation' option, could contribute valuable data to the evaluation of health promotion websites and could improve their long-term efficiency. If a project was successful enough to engage visitors and was able to encourage some of them to make a voluntary donation towards its running this would present a strong statement of support for an online project. Measuring earned revenue could be seen as a way of triangulating data collection for the behavioural impact of a site.

6.2.9 The internet – an active and formidable platform for health promotion

The online environment in which we established Sex-and-Relationship was a formidable shaping force of our work. This is especially noteworthy as so few evaluations of online health promotion projects take much notice of how a project functions online and only

Lorence and Greenberg (2006) write about issues around online searches in-depth. This study found that the online environment was constantly changing and that our project and our knowledge and skills base needed to evolve with it. Therefore, it seems overly simplistic to the present author to evaluate online health promotion projects without taking into account how real service users locate it online and how a project needs to evolve to use the features of its online environment to best advantage.

Health professionals need to use the intrinsic features of the internet especially the current search engines much more to guarantee best performance of online health promotion projects (Wilson et al 2001) as otherwise websites will function well below their potentials. This is underlined by the fact that even in a project with a budget for offline advertisement online means for recruitment have been much more important (Linke et al 2004).

Benigeri and Pluye (2003) stress the importance of health practitioners being part of the design and writing phases of health information websites. The present author wants to add that practitioners also need to be continuously involved in the ongoing maintenance of a health promotion project. Web sites are in a dynamic interaction with their online environment and need ongoing refinement and work to fulfil their potential. This was also shown to some extent by the study by Pinnock and Jones (2003), who reported rising visitor numbers over the length of their research suggesting the importance of an ongoing maturation process for health promotion websites.

Additionally, it is important to approach the internet as a new and very different media platform which offers new possibilities to practitioners and clients alike which we still need to explore as health professionals. One very interesting feature of the internet is its empowerment of service users vis-à-vis professionals as it allows for complete anonymity and full control over any interaction by service users (Graugaard and Winther 1998). Another fascinating side effect of the internet is its disruption of traditional host-guest relationships (Ma 1996) and a relative freedom from cultural expectations (Ryen and Silverman 2000). The internet does indeed offer transgressive potential which health professional could tap into to disrupt the cultural reproduction of stigma and shame around health issues. Practitioners need to stay open to new possibilities that the internet as a medium may offer which are only just surfacing in our collective awareness as practitioners.

6.2.10 Implications for online advice and counselling¹²

The email advice service of Sex-and-Relationships recorded fewer email queries than other online health promotion projects (Graugaard and Winther 1998, Flowers-Coulson et al 2000, Pinnock and Jones 2003, Harvey et al 2008), namely around 100 in total over two years.

My work with Shimla developed very similarly to conventional, offline therapeutic work. However, I had much less background information about my client than I would have had in a similar offline context. Therefore, the author suggests that practitioners working with clients online need to have extensive experience of working with people offline to be able to work effectively within the more ambiguous online setting.

With respect to the work with the 'unknown enquirer' although many interpretations of her silence are plausible, it is possible that she only wanted a very brief and informative exchange rather than an ongoing dialogue (Hahn 1998). As can be seen from the data gathered through the feedback survey enquirers, who did not engage in further dialogue, had in many cases found the practitioner's original reply sufficient for their needs. Their silence can therefore be interpreted as purposeful and positive. However, accepting that many service users may want only brief and informative question-response exchanges means that practitioners need to include all of the relevant information in their first reply to enquirers (Hahn 1998, Flowers-Coulson et al 2000).

Over the two-year period of the research project the practitioner-researcher was not able to identify a pattern either with respect to the presenting issue or the style of writing which enabled her to identify clients, who wanted and would subsequently engage in an ongoing dialogue and those who did not. It is likely that such an assessment cannot be made based on just one email. However, both contact styles of clients, namely an interest in ongoing dialogue or only the briefest of possible exchanges to gain specific information are valuable to clients and can be supported by email as a medium. Practitioners working online need to be able to respond and account for both contact styles in their first email by giving a sufficiently detailed response including cautions and recommendations to seek further

¹² This section forms part of the discussion in: Stummer, G. (in press) Client Contact Styles in Online Therapeutic Work Via Email. *Counselling Psychology Review*

offline help and offering further dialogue with the practitioner should this be deemed necessary.

Finally, practitioners, who are more familiar with ongoing therapeutic work, may easily experience the 'black hole effect' (Suler 1997) when clients do not reply. However, this type of contact is appropriate for the medium and clients may have gained what they needed from even a brief online exchange. On the one hand, practitioners working online need to have experience of long-term offline work to manage the added ambiguities of the online environment, but on the other hand also need to be able to tolerate experiencing the black hole effect and the abruptness of some online exchanges without doubting the usefulness of their work to clients.

6.2.11 Blogging in social science research

The blog used for this study as an online research journal became an invaluable tool. It allowed the researcher to write for and about the research right from the beginning of the study. As writing is one of the most important skills for researchers, practising writing is essential and helps to prepare for writing a final research report and the later publication of findings. Additionally, blogging software allowed information contained in blog posts to be organised into narrative strands whilst being easily accessible via a search facility. Therefore, the blog constituted a much more efficient way of storing diverse qualitative data than a normal word processing file (Brady 2005).

Furthermore the blog constituted a publicly available meta-narrative of the research, which was accessible to research participants and allowed for feedback and input from them. Therefore, it opened opportunities for participation to research participants and other stakeholders, which is an essential feature in action research. Suzuki (2004) uses the phrase being able to 'walk with' the researcher through the medium of the blog. This phrase seems to catch the possibilities inherent in blogs for real participation and openness whilst the research is actually happening. Blogs are effective links between the private sphere of the researcher and the public sphere of the participants (Blood 2000) allowing for connections between the two.

With respect to research methodology the blog also constitutes a publicly accessible audit trail (Guba and Lincoln 1985) and therefore contributes to the validity of a study. Blogs as online journals support reflexivity as writing a blog involves thinking, writing and reflecting (Mortensen and Walker 2002) about the collected data as well as the researcher's own contributions to the research process. Additionally, the author also experienced how her blog helped her to consolidate her own learning and reflect on her meaning making processes as suggested by Fiedler (2003) through requiring her to articulate her thinking in writing.

The only drawback of a publicly accessible blog is the possibility that a researcher may censor his or her journaling as anybody can access and read a blog including research participants, the researcher's supervisor or other important figures in the researcher's life. However, newer blogging software allows individual posts to remain private and only accessible to the blogger him or herself. In the present author's opinion blogs offer many exciting possibilities for communication, dialogue, participation and data collection. If the majority of researchers in the social sciences would write blogs about their ongoing work it could create an immensely interesting and energising dialogue between researcher and researched.

6.2.12 A practitioner-led model for developing online health promotion

To summarise the developmental processes observed in the work on Sex-and-Relationships the author would like to propose a practitioner-led model for the development of online health promotion resources as an alternative to Skinner et al's (2006) STAR model. From a practitioner's point of view the shortcomings of the latter are the fact that it necessitates a multi-disciplinary team as well as a sizable budget to develop online health promotion websites. Moreover, Skinner et al's (2006) model by suggesting that resource development needs to be conducted by a large team implicitly suggests that service development is different from ongoing service delivery. The STAR model acknowledges the need for ongoing maintenance but this seems to be envisaged at a very limited level compared to input during the service development phase. Moreover, Skinner et al's (2006) STAR model does not account for how an online resource operates within its online environment nor does it plan for the processes, which are required for best performance online.

The present author proposes an alternative, practitioner-led model for the development of online health promotion resources. Rather than dividing a one-off effort of service development into subsequent phases the practitioner-led model arising out of the development of Sex-and-Relationships comprises 3 ongoing and continuous elements, which are in a dynamic dialogue with each other. The practitioner(s) is one element, which is required on an ongoing basis not just for a brief period of service development. The practitioner contributes knowledge from his or her discipline and professional experience from offline settings. Tasks, which the practitioner needs to plan for, are contributing up to date content, being involved in exchanges with service users, evaluating the performance of the online health resource and being continuously reflexive about his or her own contributions to the project.

Service users need to be the second, ongoing element of the development process through ongoing feedback via surveys, an email advice service or other interactive features. Ultimately, service users need to be allowed to shape the service so that it reflects their needs and concerns. Thirdly, the online environment is also an ongoing element, which needs to impact the development of online health promotion projects. The requirements of the internet for websites are continuously in flux. Currently, the search engine Google dominates the way service users will locate an online health promotion project and its requirements for a high number of back links, frequent additional content and ongoing maintenance need to be accounted for.

The three elements of practitioner(s), service users and online environment need to be in an ongoing, open and dynamic dialogue with each other so that each element is able to impact the development of the online resource. Action research would be especially well suited to structure and support this ongoing dialogue between all three elements. Contrary to Skinner et al's (2006) model, the present author suggests that service development should not constitute a one-off process, but needs to be ongoing and open-ended. Therefore, health practitioners need to be involved on a continuous basis and not just at the initial start of an online service. Although this model of service development may mean that it will take longer for an online project to take shape compared to the speed at which a bigger team can plan and implement a website, it does not require a big, initial budget and could be self-sustaining in the long run. Moreover, it empowers practitioners to contribute their expertise to the web according to their own priorities. Below is a schematic representation of how the

author envisages the continuous, practitioner-led development of online health promotion resources.

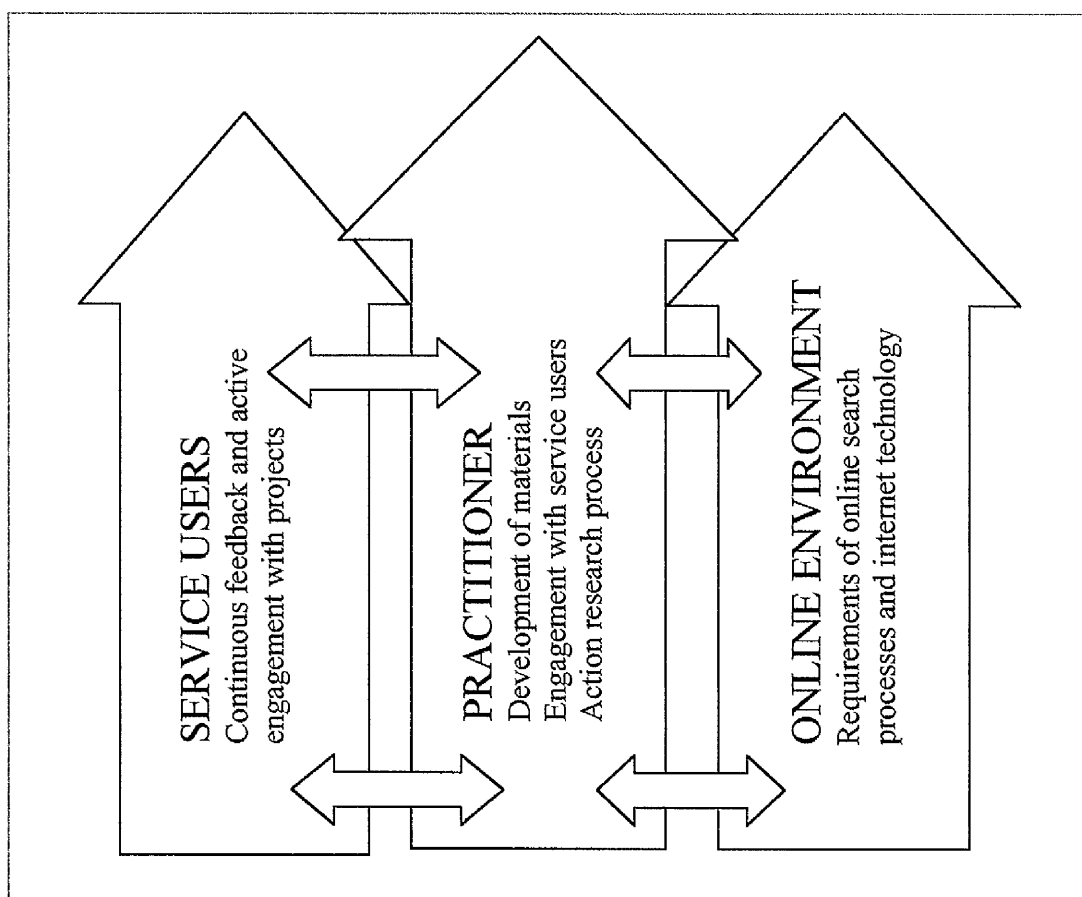


Diagram 21: Model of a continuous, practitioner-led approach to the development of online health promotion materials

6.2.13 Writing for the web – the practitioner’s experience

The internet as a new medium combines features of existing media in a new way resulting in communication via the internet having been experienced as distinctly different by the present author. On the one hand, the internet has the mass medium capabilities of TV and can reach an audience of 1.2 billion people (Computer Industry Almanac 2007). On the other hand, the internet allows for ongoing and intimate one to one contact as does the telephone or letter writing. The fact that one to one conversations between individual users are normally conducted in a written format adds another interesting feature to communication via the internet, namely that two individuals, who are communicating with each other, can stay anonymous to each other and do not have access to a visual image of

the other person leaving most identifying characteristics of the other up to one's imagination.

The internet as a set of diverse communication channels seems to distort our usual perception of distance between others and ourselves. One distancing effect is Suler's 'black hole' effect (Suler 1997), which describes the fact that communications to other internet users often seem to disappear into an empty void as the recipients fail to reply. The experience for the sender can be very disconcerting as it is often impossible to get more information about why the other party failed to respond. The 'black hole' effect can be experienced as alienating, distancing a person from other internet users and suggesting that building up and maintaining relationships via the internet is futile and leads to disappointment and isolation. In addition, even if the other replies complete anonymity means that we can only know the other via his or her presentation of themselves and their use of language, which also creates a sense of distancing. Cultural differences may not be obvious at the start of an online relationship leaving ample room for misunderstandings and relational ruptures. Therefore, the internet seems to disrupt our usual patterns of getting to know the other which can result in a sense of distance and disconnectedness for the individual.

On the other hand, the internet also invites us into a sense of closeness with each other, which we may otherwise not experience. Through the possibility of global and near instantaneous communication the internet allows us to engage with people who we may never otherwise be able to reach. In addition, the absence of visual cues allows individuals to project a comfortable and familiar image onto the unknown correspondent, which helps us to minimise the unknown and the different. Accessing the internet from home or from a familiar internet café can heighten one's subjective sense of comfort through being in a familiar space when communicating online. People seem to disclose more about themselves in online conversation than they would otherwise do due to the immediate absence of the other, an effect which Suler (2004) describes as the 'disinhibition effect' and which researchers have also commented on as helpful in gaining more in-depth personal data online (Locke et al 1992, Paperny 1997). Therefore, the internet also includes features which result in more closeness between people and a subjective sense of intimacy, trust and connectedness to others. The fact that the internet includes both distancing and connecting features may account for the fact that communication with service users during the

development of Sex-and-Relationships was experienced at times as distant and disjointed and as warm and intimate at other times by the researcher.

Moreover, the internet should not be seen as a single, monolithic medium, but rather as a set of different communication channels, all of which offer distinctive ways of communicating and involve their own distancing and connecting effects. If one sees the internet as a medium of mass communication, it might be surprising when service users respond with personal and emotional messages via email whereas if one sees the internet as offering the possibility for cooperative and ongoing relationships via email it may seem disappointing when service users do not reply. The internet as a communication platform offers diverse channels and supports a whole range of communication styles all with their own benefits and drawbacks. It seems as if the availability of different channels of communication via the internet confuses and disrupts easy assumptions about what kind of contact can and should be expected with service users.

The present research study included 3 different types of communication channels with service users. Firstly, the website itself functioned as a one-way mass communication medium through which we attempted to reach as many viewers as possible. The only way in which we received some feedback about how users engaged with the project via this main communication channel was via the website statistics collected through Google Analytics. However, the statistics available to us about service users gave only a fleeting impression of how users interacted with the website, equivalent to tracks left in the snow. The visitors behind the statistics remained completely hidden to us as authors. The website as a communication channel remained silent and impenetrable to the researcher.

The self-selected surveys constituted another communication channel, which was also more or less unidirectional, but this time sending information from service users to the researcher rather than the other way round. The surveys could be conceptualised as messaging boards with respect to the type of communication that they allowed. Therefore, they invited feedback from service users via open-ended questions, which they often gave in a brief 'text message' or 'chat room' style format without any contextualising information, as is often the case online. The researcher experienced the entries to the surveys as small snippets of monologue, which allowed a brief connection, a glimpse into the participant's experience of the website long after the respondent had visited the website. Entries often

conveyed only truncated messages as they were devoid of contextualising information and were often ambiguous in their meaning. Nevertheless, they contained some information about the service user's world and their experience and interaction with Sex-and-Relationships. Maybe the most important message contained within them for the researcher and web authors was the fact that they signalled that somebody was in fact 'out there', was engaging with the website and was willing to let the researcher know that they had visited. Therefore, the entries to the self selected surveys offered important messages of support and connection simply by virtue of their existence to the authors of Sex-and-Relationships showing that some visitors were indeed interested in and appreciative of the content of the project.

Thirdly, the email advice service via Sex-and-Relationships also allowed connections with service users. Due to direct one to one communication via email this channel allowed for more in-depth and emotional contact with visitors. However, communication via the email advice service did not always entail warm and connected exchanges with service users, but also contained many instances of silences, abrupt endings and disjointedness as well as close connections and experiences of intimacy. The work on the email advice service emphasised the experience of the 'black hole' effect (Suler 1997) for the practitioner-researcher as I experienced abrupt endings, which did not fit my expectations of dialogue via email, which were based on my offline experiences of working with people therapeutically. On the other hand, the email advice service also evidenced the connecting effects of the internet such as the 'disinhibition effect' (Suler 2004), which seemed to allow enquirers to disclose important material early on in the exchange as was also noted by Hall (2004).

The issues around distancing and connecting via the internet may be even more heightened in this research project due to the intimate nature of the topic of Sex-and-Relationships as well as the emphasis on close relationships inherent in the author's professional training and offline work as a psychotherapist. Different types of health professionals working online may have very different experiences and expectations of relating to their intended audiences according to their own conceptualisations of professional working relationships with clients. The internet as a medium can of course support both passive, one-way and intimate, two-way communications, which gives health professionals working online different options for connecting with their audiences. However, the availability of different

online communication channels means that health professionals need to become aware of what kind of connection with service users is desirable and sustaining for them whilst working online rather than simply assuming that the medium defines their choice or that service users will automatically communicate with them in the way they are used to from offline settings simply because this is technically possible.

Up to now this discussion has been focused on the health professional's experience of distancing and connecting when working online. What about the visitor's experience of distance and closeness when engaging with online health projects, especially with those containing relational and emotional content? Unfortunately, at the present moment the author can only guess at what the experience of connecting with Sex-and-Relationships may have been like for visitors. On the one hand, Hahn's work (1998) reminds us that service users may not be looking for a personal connection when looking for information, on the other hand, the data collected for this study both in surveys and through the email advice service show that service users were interested and pursued in-depth communication with the author. One concept, which has been proposed to describe internet users' experience of engaging online is that of 'presence' (Lombard and Ditton 1997). Presence describes the way in which a medium is able to create the illusion of non-mediated contact, for example, a high definition television will allow for a greater degree of 'presence' or a greater degree of illusion of being present in an unmediated situation than a normal television. The internet certainly allows for a high degree of presence, which means that interactions with other people can be experienced as warm, personal and intimate despite the obvious geographical and emotional distance between strangers communicating with each other online. When considering the concept of presence with respect to the research on Sex-and-Relationships many new questions arise: What sense of presence does the website convey at the moment through warm colours and its style of written texts? What level of presence could be achieved if the authors relinquished their anonymity and included personal statements and pictures of themselves? Would a greater degree of presence of the authors improve the website's effectiveness and if so, in what way? Is a greater level of presence more important for online health promotion projects, which aim to communicate information about personal and emotional content?

Many questions remain unanswered with respect to the distancing and connecting features of working on and using Sex-and-Relationships. As this study has shown, work on Sex-

and-Relationships was sometimes an isolating and often discouraging experience despite some exchanges with service users via the three different communication channels. The distancing elements seemed to far outweigh the connecting aspects within the work and it is easily understandable to the author why health professionals may not continue to develop online projects, as the lack of interaction with service users can be disheartening and frustrating. This could be especially true for health professionals such as psychotherapists, counsellors and psychologists who normally work within ongoing and often intimate therapeutic relationships with clients.

As mentioned previously the most crucial element of the work on Sex-and-Relationships for the practitioner-researcher was the warm and supportive relationship between project partners. However, working as a team was often difficult due to time constraints and the multitude of issues that the website brought up. The latter resulted in a sense of chaos for the author, which for example made it hard to keep track of work in progress and created friction within the relationship between project partners. On the other hand, the present author believes that it would have been very difficult for her to continue her work on Sex-and-Relationships without an encouraging and positive offline working relationship, not due to a lack of technical expertise or time constraints, but due to a lack of positive reinforcement and support in the face of the distance and disjointedness inherent in online work. Additionally, as the author found at the start of the development process, not having direct access to Sex-and-Relationships felt disempowering to her and discouraged a sense of ownership. Therefore, partnerships may work best when both partners have equal access to a website even though they may focus on different aspects of the work involved.

However, working as a team may not be the best option for all health practitioners. One of the advantages of working on a website is that all of its features are directly under the author's control. Working in partnership lessens the individual's sense of control and requires negotiation skills and patience. As the present study has shown developing a successful website on a health topic can be achieved even on a small budget and should be within reach even of an individual practitioner. However, practitioners also need to be aware of the immediacy of negative feedback through instantly accessible data on visitor numbers. Working on an online project can be emotionally demanding and practitioners need good emotional and professional support to balance out the ups and downs as well as the silences of the online environment even if this support does not come from a colleague.

One strategy, which the present author found very supportive and helped her stay involved and motivated to work online was her online research journal. The blog became an important tool to create structure out of chaos in a way that allowed both of the authors to access up to date work tasks and news about the project in their own time. It also functioned as an online portal to our work as it included links to websites we used such as the Google Analytics home page. It might have become an even more effective tool if we had co-authored the blog. Moreover, the blog constituted another, fourth channel of communication between the author and service users. The software used for blogging allows for two-way communication between health professionals and service users via blog posts and comments. Unfortunately, this possibility was not fulfilled during the research into Sex-and-Relationships as visitors to the website did not leave comments on the blog, however, this could be due to the fact that the blog was focusing on research rather than complementing the content of Sex-and-Relationships. Although the potential for communication inherent in a blog was not realised within this research project, it remains a possibility in the future and needs further exploration.

However, another possibility inherent in blogging was utilised in this study, namely that the author was able to publish and show herself online through the medium of the blog. Although the blog must be seen as a conversation of the researcher mostly with herself, nevertheless, it constituted an act of communicating the self of the researcher, of claiming space online and establishing a presence. Considering the sense of distance and silence that the internet can foster, hearing or in this case, reading and writing ones own voice into the empty space was experienced as reassuring and connecting for the author. Therefore, the author recommends the use of blogs to health professionals working online as a way of impacting the black hole and creating a personal and supportive space for oneself online. A blog could of course also create an experience of 'presence' of the author for service users, however, this possibility and how it might be experienced by service users, needs more research to support this assumption.

The development of Sex-and-Relationships and an increase in visitor numbers took a lot longer than the researcher-practitioner expected. The two-year period was clearly needed to develop the project in terms of content and procedures. Moreover, it seems that web-based health promotion projects need time to 'mature' and embed themselves in their online

environment. This process felt very organic and seemed to have its own pace similarly to what was observed by Pinnock and Jones (2003). Therefore, online health promotion projects need to be planned with a long-term perspective in mind. Health professionals need to stay involved with projects on an ongoing basis to allow for frequent updates, contact with service users and development of new content. In this respect online health promotion projects need to be viewed much more like offline services, which also need continuous input and maintenance rather than be compared to traditional print media like books or journals, which once designed and completed are static entities.

It is important that health professionals consider what kind of emotional support they may need to continue working on online projects in the absence of feedback from service users. Possible strategies to overcome a lack of online interactions are supportive partnership arrangements between health professionals, who may not even have to be working on the same online project together. As more health professionals work online more scope for team work and supportive peer networks both online and offline exist. One strategy could be the development of an online peer group of health professionals who are working online, which could support individual practitioners and help to develop practice guidelines as is already happening within the mental health field through the International Society for Mental Health Online (ISMHO). Furthermore, the blog was experienced by the author as an effective way of overcoming some of the distancing effects of the internet as a medium which allowed her to claim her own space and voice online. Finally, health professionals need to consider how much 'presence' (Lombard and Ditton 1997) they would like to portray online and how best to do so. How a perceived sense of presence of a supportive and authoritative professional may impact the experience of service users of online health promotion projects and the latter's effectiveness in conveying their message remains an important area for further research.

6.3 Visitors to Sex-and-Relationships

6.3.1 The un-representativeness of online samples

Online researchers need to use caution when making generalised statements about visitors and the information needs of internet users in general or of visitors to a specific health website in particular. Firstly, online populations are not yet and may never be

representative of the general population of any given geographical area (NTIA 1999, Dittmar et al 2004). Secondly, visitors to a website do not represent a representative sample of all individuals who are online and who would be interested in a given topic. This is due to the fact that locating a website online involves a complex sequence of steps as shown by Lorence and Greenberg (2006). Visitors to a website who have accessed a site via a search engine or online directory are therefore pre-selected through this process and not representative of all potentially interested internet users.

For example, Wilson et al (2001) in the discussion of the data from their study of an information website on arthritis suggest that they could conclude something from the search queries entered by visitors to their site about their whole target population. This is in effect not possible as it is unknown what search terms were entered for all the other websites featuring content on arthritis by the vast majority of interested internet users who did not access their site.

The content of a website and the search terms a search engine indexes it for constitute a positive feedback loop. The higher a website is ranked for a specific topic the more visitors it will get looking for information on this specific topic, however, this does not mean fewer people are overall interested in the other topics the search engine has not indexed the aforementioned site for. Moreover, the results given in response to search terms are influenced by other websites, which a project competes with. Therefore, the fact that Sex-and-Relationships received many visitors to its web pages on female sexual anatomy probably means that there is a lot of content about the topic on Sex-and-Relationships making our page more prominent in the search results and thereby creating more visits to this page of Sex-and-Relationships rather than visitors in general being specifically interested in this topic. The overall result of the systemic properties of online projects means that ultimately a website attracts the visitors the authors write for, and not a representative sample of all potentially interested individuals.

Furthermore, generalisations about the visitors, who do end up on a specific website need to be treated with caution as software which records overall website usage statistics such as Google Analytics only register general data for all visitors without enough detail to make sound interpretations about individual visitors. Finally, the participants of self-selected online surveys constitute another, very unrepresentative sample of visitors to a website.

Their contributions add important depth to our understanding of how visitors interact with a website, but cannot be taken to show how the vast majority of visitors interact with a website. To reiterate, it is the present author's opinion that researchers of online health promotion projects need to be very cautious and exercise restraint when making generalised statements about target populations and website users and their possible information needs as the online environment includes a range of systemic properties, which make representative sampling impossible.

6.3.2 Characteristics of visitors to Sex-and-Relationships

Due to the size constraints on this thesis I will only select a few points from all the data collected about visitors to comment on in this discussion. Firstly, according to the bounce rate measure approximately 40% of visitors only click on one page of Sex-and-Relationships before clicking away again. These 40% of visitors only leave the faintest of trails and no conclusions can be drawn as to who they are and why they clicked away again. Furthermore, the only possible option to gain additional data about this population would be to invite people to complete a brief survey via a pop-up window as individuals leave Sex-and-Relationships. However, the frequent use of pop-up windows for marketing purposes means that internet users often disable them through their browser software and they are considered impolite and intrusive according to agreed netiquette (Anthony 2006). Researchers may need to accept that data may never be available for a large proportion of visitors to health promotion websites.

Secondly, from the data gathered by Google Analytics it is possible to collect data about all visitors to Sex-and-Relationships such as their geographical location. However, this data is so broad that it does not support practitioners in developing the specifics of an online health promotion project.

The demographic data of the web-based surveys gives us more in-depth information about visitors albeit only from a small and self-selected sample ($n = 559$). This data suggests that more men than women accessed Sex-and-Relationships, namely 60% men, 39% women and 1% who identify themselves as transgender. Additionally, the vast majority of visitors stated they were heterosexual, 76%, and an equal number, namely 10% stated that they were bisexual or homosexual. Given the much lower percentage of homosexual and

bisexual individuals in the general population this seems an important achievement for Sex-and-Relationships towards including all sexual orientations whilst avoiding the practice of segregated pages especially designed for 'other' sexual orientations (Whitlock and DiLapi 1983). However, it could also mean that non-heterosexual visitors to Sex-and-Relationships were more inclined to complete one of the web-based surveys.

The overall impossibility of making generalisations about all visitors based on data gathered through self-selected surveys underlines the importance of a practitioner-led approach to online health promotion. Practitioners will in themselves be grounded in the knowledge base of their own discipline as well as their own personal experiences as professionals and will therefore be more likely to make meaningful interpretations of the limited data gathered through online means.

6.3.3 Establishing the information needs of visitors

As the literature review shows projects, which have closely collaborated with service users during the planning stage or which have conducted an information needs assessment of a sample of their target group prior to the work on the project itself (Young et al 2002, Pinnock and Jones 2003, Gilbert et al 2005, Goold et al 2006) have achieved the best results. Clearly, establishing the information needs of the end users of online health promotion websites is essential to their success, an opinion first voiced by Pinnock and Jones (2003).

Given the fact that a website will ultimately attract the readers its authors envisage and write for makes it difficult to ascertain the information needs of not-envisaged or excluded groups prior to the project or via the website itself. Moreover, it is necessary to research, possibly via using focus groups or offline or online surveys, the information needs of the target audience(s) as envisaged by the researchers. This process can be expensive and it may not always be possible to define target audience(s) clearly according to geographic or other characteristics. Also, this process will fix the target audience(s) for a project in advance in the minds of health professionals and may therefore exclude groups who would otherwise benefit from the service had practitioners kept a more open outlook. Also, the planned target audience(s) may in fact not be the main group, which ultimately uses a website as in the study by Gilbert et al (2005).

A second way of conducting an online information needs assessment would be through the running and continuous development of an online health promotion project. However, this means that an online project would need to be in an ongoing dialogue with service users as well as grounded within the up to date offline knowledge base of its practitioners. This study found that the free email advice service on Sex-and-Relationships soon became an important way of enabling dialogue between service users and practitioners. Email queries were used to development the content of the website which could therefore be adapted according to the real information needs of the visitors to Sex-and-Relationships.

Additionally, participants offered helpful feedback through some of the web-based surveys, which allowed the authors to further improve the existing texts. Moreover, the authors were also fully embedded within their own understanding of client's needs as practitioners. This meant that the authors engaged in an ongoing, reflexive dialogue from their own professional perspective with the incoming queries and data to continuously develop Sex-and-Relationships according to the real requirements voiced by visitors.

The present author believes that the above strategy of inviting ongoing feedback from service users through an email advice service and open-ended survey questions as well as being grounded in ones discipline as a practitioner allows for an ongoing information needs assessment of real service users online.

6.4 Reviewing what stayed unknown

Although this study could shed some light on the developmental processes involved in setting up Sex-and-Relationships, much continues to be unknown, especially about our visitors. Most importantly there is no data, which would allow any sound hypothesis about the 40% of visitors who access only one page of Sex-and-Relationships before clicking away again.

Moreover, it is also impossible to say what visitors to Sex-and-Relationships who did look at more than one page, but who did not complete one of the self-selected surveys think about the service. What also stays hidden is any impact the service may have had on people's actual lives beyond their computer screen. Certainly, there is evidence from the email advice service that the service has been useful to service users in their offline lives,

however, the specific sample is very small and is not representative of all visitors to the project.

Additionally, it is unknown why other projects have reported very high numbers of email queries (Graugaard and Winther 1998, Flowers-Coulson et al 2000, Pinnock and Jones 2003) compared to this project. Even more surprising and open to interpretation is the strong preference visitors have shown for emailing the female professional rather than her male counterpart.

Many other questions remain unanswered, which emphasises the complexity and anonymity inherent in the internet. By empowering service users, the internet also disempowers researchers and practitioners resulting in less control over the practice and research setting. It is important for researchers to acknowledge the limits of what has been found and thereby invite further exploration in the future. Additionally, the internet may never allow researchers to know the visitors to any studied website. However, acknowledging the unknowable may help researchers to remain realistic and curious in their endeavour.

Overall, our knowledge about online health promotion and sexual health promotion in particular is still woefully limited both about how to develop successful projects and what the needs of service users are.

6.5 Summary of discussion

Numbers of daily visitors are an important measure for the success of online health promotion projects. However, their use has not been clear enough in the literature. Additionally, this study found that average daily visitor numbers were misleading if not supplemented with a measure for bounce rate, i.e. the percentage of visitors who only viewed one web page before clicking away again. The present author suggests that a standardised measure for average daily visitor numbers and the corresponding bounce rate should be adopted by researchers.

The internet is an ideal medium for health promotion and some authors have suggested that it could revolutionise health promotion (Noar et al 2006, Duffet-Leger and Lumsden 2008). Despite these possibilities health practitioners have up to now been surprisingly absent in reports of online health promotion projects. Only one piece of practitioner-led research has been found for this literature review (Hall 2004). This study shows that a successful online health resource could be built by two practitioners. The author recommends that many more practitioners should acquire the necessary technological and research skills to be able to contribute to online health promotion and its research base.

In general, authors of online health promotion projects remain hidden in the research literature making it impossible to evaluate their impact on a project. Additionally, research reports also often lack information about design choices made for online projects. This silence does not support practitioners developing their own materials and pre-supposes an agreement on best practice, which does not yet exist. Furthermore, design choices not taken, but considered and reflected on are equally as important and need to be published. The author suggests that more care is paid to the detailed development processes behind online health promotion projects to encourage open debate and transferability of learning.

A unique aspect of online sex education projects may be the necessity to challenge Western society's contradictions of its construction of sexuality, in particular, sexuality's status as a 'special' practice (Jackson and Scott 2004). Online sexual health projects need to be alert to the type of discourse on sexuality (Fine 1988) that they feature to consistently support a sex-positive approach (Bay-Cheng 2001).

With respect to evaluations of online health promotion projects the present author believes that it is paramount to use naturalistic research designs and real visitors to evaluate the usability and effectiveness of health promotion websites. This fact is underlined by the contradictions between research results from studies who use participants recruited offline and studies which use real visitors to websites.

Although this study was not able to show that this online project was able to generate enough income to remunerate the practitioners for their work, future research may find ways of making practitioner-led online health promotion projects financially viable and therefore sustainable over long periods of time. Moreover, creating a way for visitors to make donations or in other ways contribute to the running of a project on a voluntary basis could supplement other measures for website effectiveness.

The internet was found to be a formidable shaping force of the work on Sex-and-Relationships. This underlines the importance of evaluating online health promotion projects within their online environment. Additionally, the internet may offer many as yet unexplored possibilities for challenging traditional constructions of the roles of clients and professionals as well as of ill health. Practitioners need to stay open to the many possibilities the internet may offer to challenge stigma and shame around health issues.

The email advice service of Sex-and-Relationships received approximately 100 email queries over two years. Enquirers showed two contact styles, namely either to engage in longer dialogues similar to offline therapeutic work or to only seek single question-response pairs. Both contact styles were useful to enquirers and can be supported by email as a medium. Practitioners need to be aware of answering queries in-depth in their first reply in case clients did not want to engage in further dialogue.

The blog as an online research journal became an invaluable tool to the researcher allowing for ongoing reflexivity and practice in the art of writing. It stored diverse information efficiently and allowed for it to be retrieved via a search facility. Moreover, the blog invited participants to 'walk with' the researcher (Suzuki 2004) through the research process and thereby encouraged dialogue and participation between different stakeholders in the research.

The author presents an alternative to Skinner et al's (2006) STAR model for the development of online health promotion projects. The practitioner-led model envisages three elements, namely the practitioner(s), service users and the online environment in a continuous, dynamic interaction grounded in an action research process. All three elements need to be allowed to impact the online resource and development needs to be seen as a continuous, open-ended process rather than an initial development phase separate from service delivery.

The internet as a medium offers a diverse set of communication channels to health professionals working online, each with different distancing as well as connecting features. Working online may be perceived to be a lonely and isolating experience especially by health practitioners who are used to close and cooperative relationships with clients. Professionals need to consider their needs with respect to emotional and professional support to sustain their focus and motivation in the face of distancing factors such as the 'black hole' effect (Suler 1997).

Making generalised statements about visitors and their information needs is complicated by the inherently un-representative nature of internet samples in general and those of visitors to specific websites in particular. The positive feedback loop operating between website content and search results means that websites attract the visitors the authors write for rather than a representative sample of all interested internet users. As working online may always entail working with limited data, practitioners may be especially well placed to developing online projects as they are grounded in their offline practice and theoretical disciplines, which will make it easier for them to make meaningful interpretations of the limited data available.

Conducting an information needs assessment or closely collaborating with service users prior to the development of a health promotion website has been shown to improve the effectiveness of online health promotion projects (Young et al 2002, Pinnock and Jones 2003). However, such an approach may be expensive and not always possible or desirable. A free email advice service allowed for ongoing input from service users and the continuous development of a site according to their needs.

Finally, many areas remain unknown after completion of this study. The internet limits what can be known through limiting what data can be collected especially about internet users. This necessitates researchers to remain realistic and curious in the face of the unknowable.

6.6 The future of Sex-and-Relationships: The next action steps

Action research constitutes an ongoing, cyclical process of enquiry to improve practice. Therefore, at the end of this cycle of enquiry I would like to list the next action steps for Sex-and-Relationships based on the research completed so far:

1. Many gaps exist in the content available on Sex-and-Relationships. One of the main action points is to continue to write content for Sex-and-Relationships. At some point it may be useful to check the content for completeness against standardised guidelines for sex education as suggested by Gilbert et al (2005).
2. Another major avenue for further development is the promotion of more links between Sex-and-Relationships and other online projects. Back links are especially important for Sex-and-Relationships as they influence the project's ranking within the Google search engine and thereby the ease with which service users can locate it online.
3. Another main area for development would be to encourage more interaction with service users. This could be achieved via an easy to use comment box on the home page to ask for feedback from viewers. This strategy could also contribute to an ongoing information needs assessment.
4. To improve accessibility both in terms of language use and navigation the development of an A-Z glossary of terms seems an excellent idea (Marton 2000). Not only would this make technical terms more accessible through creating a dictionary, but it could also function as an index for topics.
5. Setting up a regular maintenance schedule for all existing web pages so that they are updated on a continuous basis would improve the overall quality of Sex-and-Relationships. This could easily be achieved through using the list of web pages in the site map. Regular maintenance and updates of existing web pages is part of the ongoing maturation process for online health projects.

6. Whilst updating individual web pages I am also planning to check their content for any embedded covert messages using Fine's (1988) four discourses in sex education to make sure that Sex-and-Relationships does consistently support a sex-positive approach (Bay-Cheng 2001).
7. Although Sex-and-Relationships may not be eligible, it would still be useful to submit it to the Health On The Net Foundation for their quality assurance symbol. Even if Sex-and-Relationships is not accepted due to its adult content it would be interesting to get their feedback.
8. With respect to accessibility, we need to check the reading level of Sex-and-Relationships via the Flesch readability formula incorporated into the Microsoft Word 97 package as suggested by Young et al (2002). If the results show that the required reading level is high, we could write some pages as 'beginner's guides to sexual health and relationships', which are accessible at lower English reading levels.
9. Finally, an important way to develop Sex-and-Relationships will be to engage individuals and groups in an ongoing dialogue to gain feedback and suggestions for additional content (Pillsbury and Mayer 2005). Discussions, which I would currently like to set up, are with non-heterosexual individuals to develop more material on sexual orientation and with women's projects, for example, to develop content on skills for how to negotiate for Safer Sex (Thornburn Bird et al 2001).

6.7 General limitations of this study

This section discusses the general limitations of this study whilst a discussion of the specific limitations of individual data is included in the results section alongside data analysis and data interpretation according to the requirements of action research to evaluate findings before planning further action.

Action research projects are always limited by their local and unique contexts. Therefore, the answers gained in this study may not apply to other online health promotion projects. Additionally, the study of Sex-and-Relationships only continued for two years and given that one of the main findings is the need for online projects to mature with time a longer duration for the research may have produced different findings. Moreover, a peer review of the results was only possible through Rod as the second co-author, but not through any other stakeholder in the process as this action research project did not involve a group of co-researchers or continuous relationships with service users, which would have allowed for a member's check of the findings.

Furthermore, data collection on Sex-and-Relationships was conducted during 2006 and 2007. As the literature review shows, the internet is a highly dynamic environment. It is very likely that the important forces, which have shaped the online environment at the time of this study, for example Google (Smith 2008), will be changing substantially within the next years. Therefore, it must be feared that some of the findings of this study will soon be out of date.

Another limitation of this study is that it investigated a very specific public health field, namely sex education, which has many unique cultural complexities. Some of the processes involved in this project such as challenges to the practitioners own professional identity or the potential for online harassment may not be relevant to online health promotion projects focusing on other health issues. However, the potential for contradictory overt and covert messages also exists in other areas of health education and lessons from Sex-and-Relationships may be able to inform other projects.

6.8 Review of the chosen research methodology

Action research proved itself a useful and appropriate research methodology online. It allowed for a range of different data types to be used whilst supporting a focus on pragmatic concerns for data analysis and interpretation. Moreover, action research through its dynamic nature allowed research strategies to be adapted according to the evolving needs of the project. This feature may be especially important in online research as the internet itself is a dynamic environment.

On the other hand, with its loose structure, action research as a research methodology meant that I may have been too broad in my overall data collection as I tried to get information about different aspects of visitor's lives through the web-based surveys such as their use of language, level of sex education or relationships status. Looking back, a more rigid research strategy may have helped me to stay focused and be clearer about what data I really needed from service users. On reflection it seems action research may warrant much more research expertise compared to more traditional and pre-set approaches to knowledge generation as the researcher has to re-invent his or her method in each new set of circumstances which seems to require more expertise than applying a pre-set approach.

With respect to knowledge generation this study was able to construct functional, representational knowledge as well as relational and reflective knowledge (Park 2001). Some interpretive, representational knowledge was also generated through the email advice service, but in general qualitative data was not of sufficient detail to allow for deeper understanding of service users meanings to emerge. The exception to this rule proved to be some of the longer dialogues with service users, however, the latter were focused on the enquirer's stated issue rather than on the researcher's agenda of service development.

A lot of the knowledge created in this study is contained within the dialogues and relationships this piece of research has fostered. Moreover, a willingness for ongoing dialogue and an open and curious attitude of enquiry seems to be an ongoing legacy of action research and part of the outcome of this study. Therefore, although this piece of research has been completed, the process of action research into the development of Sex-and-Relationships is set to continue.

7.0 Conclusion

7.1 Implications of this study

In contrast to Skinner et al's work (2006), this project was developed by practitioners themselves on a minimal budget. It is hoped that the approach this study took to developing online health promotion materials will be more useful to individuals or groups of practitioners as well as small NGOs compared to the work reported by Skinner et al (2006), which would necessitate a multi-disciplinary team of professionals and a sizeable budget.

The developmental processes described in this study should be transferable to other online projects in the health field and maybe even in education. However, each piece of action research constitutes a unique case study generating relational and reflective knowledge as well as representational knowledge (Park 2001). Any representational knowledge gained through this study, which is applied to other projects, needs to be seen as provisional knowing only which needs to be tried and tested within every new context. Part of the outcome of this study is the dialogue it fostered and the skills and relationships, which grew from it. This type of relational and reflective knowledge cannot simply be transferred, but it needs to be re-constructed in each new project for each participant.

7.2 Possibility for further research

My continuing work on Sex-and-Relationships offers a range of options for further research. Firstly, it will be interesting to see how the project will develop once the author can return to it with renewed energy after the completion of this study. Sex-and-Relationships continues to generate data on an ongoing basis and it will be possible to focus data collection on different aspects of the service and its users in the future and to gain more insight into how people are engaging with Sex-and-Relationships.

Additionally, it will be important to test the findings of this study against similar research into the development and running of other online health projects. Hopefully, such research will include practitioner-led health education projects in fields other than sexual health and beyond a Western cultural context.

7.3 How the research has impacted the researcher

The richness of this study has been daunting, overwhelming and exhilarating to me as the researcher. If I did not know before that research involves mess, uncertainty and very personal decisions I certainly know it now. It has been amazing to see the project take shape and hear from people, who have engaged with it. Looking back, it is evident how crucial the relationships between people have been to the success of the project as well as the generation of knowledge for this study.

Additionally, I believe that the rigour of the research requirements has made me a better practitioner closing the theory-practice gap for me in a very personal way. Furthermore, I can see the importance of dialogue in generating knowledge. I realise now how much I was still steeped in positivist assumptions that knowledge is something created apart from the human element. I feel much more confident about what I know as a practitioner and how I have arrived at this knowledge.

Thirdly, I am amazed at how closely the process of research resembles that of psychotherapy. Both start with uncertainty, not-knowing and chaos, involve reflection, dialogue and wondering about the world to hopefully arrive at personal statements of truth(s) and a better understanding of one's limitations.

And finally, I need to give thanks to my co-author and friend without whom none of this would have been possible. None of us create knowledge by ourselves.

29.12.07

(...)

It's been real good fun to work with you too Rod! Let's hope there will be a few decades for us to continue doing this together. For now have fun with your friends and do look after yourself well,
much love
Gudrun

(Ending of my last email to Rod in 2007)

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Appendix 1: Research questions and potential data

The following tables give an overview of types of potential data available to answer each research question as envisaged by the researcher prior to data collection:

Research question 1: How can we develop and run Sex-and-Relationships as a high quality, but low-cost online health promotion website on sexual health?

Which processes and strategies were used to develop Sex-and-Relationships?		
Source of Data	Quantitative Data	Qualitative Data
Google Analytics (website usage statistics)	Number of visitors, geographic location, average time spent on site	N/A
Google Webmaster Tool (website features)	Number of incoming links	N/A
Online surveys (ASP survey software)	Number of surveys completed, demographic data, data from yes/no questions	Answers to open ended questions and comments
Online research journal	Number of blog posts and numbers of posts in each category	Content of blog posts, themes arising over time
Dialogue with Rod	Numbers of emails and phone calls	Content of dialogue, themes arising over time

Table 11: Possible data sources to answer research question 1a

Which obstacles were encountered in the development of Sex-and-Relationships and how were they overcome?		
Source of Data	Quantitative Data	Qualitative Data
Google Analytics (website usage statistics)	Number of visitors, geographic location, average time spent on site	N/A
Google Webmaster Tool (website features)	Number of incoming links	N/A
Online surveys (ASP survey software)	Data from yes/no questions	Answers to open ended questions and comments
Feedback survey for the email advice service (ASP survey software)	Data from yes/no questions	Answers to open ended questions and comments
Online research journal	N/A	Content of blog posts, themes arising over time
Dialogue with Rod	N/A	Content of dialogue, themes arising over time

Table 12: Possible data sources to answer research question 1b

Research question 2: What can we learn about the service users, who access Sex-and-Relationships?

Who are our visitors?		
Source of Data	Quantitative Data	Qualitative Data
Google Analytics (website usage statistics)	Number of visitors, geographic location, average time spent on site	N/A
Online surveys (ASP survey software)	Number of surveys completed, demographic data, data from yes/no questions	Answers to open ended questions and comments
Email advice service	Numbers of email queries sent to us, numbers of emails exchanged	Content of email queries: Questions asked, personal details disclosed.
Feedback survey for the email advice service (ASP survey software)	Numbers sent out and numbers completed, data from yes/no questions	Answers to open ended questions and comments

Table 13: Possible data sources to answer research question 2a

What are the information and support needs of our visitors?		
Source of Data	Quantitative Data	Qualitative Data
Google Analytics (website usage statistics)	Geographic location of visitors, average time spent on site	N/A
Online surveys (ASP survey software)	Data from yes/no questions	Answers to open ended questions and comments
Email advice service	Numbers of email queries sent to us, numbers of emails exchanged	Content of email queries: Questions asked
Feedback survey for the email advice service (ASP survey software)	Data from yes/no questions	Answers to open ended questions and comments

Table 14: Possible data sources to answer research question 2b

Appendix 2: Email dialogue analysis – categories

Below is a list of the 17 themes, which emerged from the data and were used to code the complete data set from the dialogue between co-authors over two years through qualitative content analysis (Morgan 1993). Two representative examples of text were chosen for each theme at random.

1. **ONLINE ADVICE:** Information and discussions about online counselling in general, our online advice service in particular or specific email queries.

Examples:

‘Well, I like the email help query and your answer. It's an interesting challenge, I think, answering problem emails, without the help of being able to see and talk with the client. For young people - especially those who aren't so articulate/literate - it is probably the only help or guidance they get, and may desperately need. Right on! (From an email by Rod 11.4.06)’

‘Security and email: Whilst reviewing some other online counselling services, I came across safe-mail.net. It looks pretty good as a platform for online work, possibly even for our existing enquiry service. I would need an email editor that let's me use colours or bold text to make answers a bit more appealing. What do you think? (From an email by Gudrun 16.4.06)’

2. **BLOG:** Information and discussions about blogging and my own blog

Examples:

‘It also starts to raise issues about what I put on my blog. Obviously those cases [some email advice queries] have an impact on me and the project, but I can't (shouldn't?) put it on the blog so as to protect their privacy. Where is the boundary here? (From an email by Gudrun 8.10.06)’

‘Blog: I have now moved my blog and have started to add to it. WordPress seems pretty good, the only thing I couldn't quite figure out is how to embed links in the post's text. As you can see in my blog, I could do it, but couldn't close the link. Any ideas? In the Dummies book it shows that one does it via a quick tag editor above the window where you type in your text for a new post. I couldn't get that to be there. (From an email by Gudrun 16.4.06)’

3. **DESIGN:** Information and discussions about design issues and the presentation of Sex-and-Relationships.

Examples:

‘I have added a few pages to the site with some different fonts, text sizes & line spacing etc. Will you have a look and see what you think, starting here: (From an email by Rod 22.5.06)

'I think the designs are all great. Number 1 and 2 are better worked out than 3, but 3 could also be developed more. I am not so keen on the blue, so I would rather go with 1 or 3. My brother thought that it looks more professional and less voyeuristic to have pictures where you can't see the faces, which is an interesting idea. Number 3 is 'cleaner', more spacious and possibly more professional looking, because of the white space around the images. (From an email by Gudrun 16.2.06)

4. **UPDATE:** Recent developments and sharing of information about Sex-and-Relationships and our work on it.

Examples:

'In terms of project, have answered that email query re condoms today. Would be interested what you will reply to him. I've also had a look at the November Google analytics figures and my comments are on the blog. The most amazing thing is how we've gone really global, but that may also be what is affecting our sales. (From an email by Gudrun 3.12.06)

'Rod will revise ads and put more in for the erectile dysfunction site. It is on already, but we haven't sold any subscriptions yet. Google seems to have eased back its filters again recently. We have benefited from that again: We need more links and write about a variety of topics. (Notes from phone call on the 28.9.07)

5. **FRIENDSHIP:** Personal, emotional and empathic exchanges pertaining to our relationship as two people. Sharing information about our respective private lives.

Examples:

'Will probably ring you in a bit, but don't want to disturb you in terms of going to hospital and family matters. So will write email for now. All seems quite well, except of course the sales :-), just joking, and I am pretty happy with stuff, just very tired actually. The cold is still lingering. (From an email by Gudrun 6.12.06)'

'Thanks for the welcome home, yes, we did have a great time: holidays are our strongest suit. The weather was great, the sea superb, and the landscape unbelievably beautiful. Wonderful Greece! Talk soon! (from an email by Rod 26.9.07)

6. **WEB:** Information about other interesting websites.

Examples:

'I asked in the webmaster forums about Google analytics, see the Q&A here: <http://www.webmasterworld.com/forum39/4305.htm> you'll have to register to get in, but it may be helpful in other ways to be a member (lots of info on front page for example). (From an email by Rod 19.6.06)'

'Here's a url with some categories of software in which you might find a photo program if

you need one: <http://graphicssoft.about.com/cs/imageediting/tp/>. (From an email by Rod 17.7.06)'

7. **CONTENT:** Issues, discussions and information about the content of Sex-and-Relationships.

Examples:

'Anyway, here is my suggestion for the text in our 'link to us' box: Support This Project! sex-and-relationships.com tries to offer good advice to as many people as possible. **If you like our project, support us by linking to us from your web site, blog or group, or write and tell others about us.** Thank You! (From an email by Gudrun 30.3.07)'

'I've had a nice email exchange now with a woman called Michelle. She 's sent us a text on genital herpes and she's up for us using her text. I've given her my blog address to keep her in the loop so I could possibly do an interview with her at some point. (From an email by Gudrun 19.4.06)'

8. **OUR RELATIONSHIP:** Discussions, which are attending directly to issues between us as colleagues, which are interesting or problematic.

Examples:

'By the way I had a moment of thinking something along the lines of "well, Gudrun's going to know even more about my sexual life than she already does, with this website thing we're doing". Then I thought - "and so, why does that matter?" Particularly with you, of all people, since you're intelligent and understanding and so on. So this is just by way of acknowledging my fleeting sense of embarrassment rather than not accepting it and embracing it as a part of my response. It's not a problem for me. (From an email by Rod 28.3.06)

'By the way, also thanks for your confirmation in terms of your investment in this. Thanks, and no I don't think you will let me down at all, even if the finances never work. It's good to do this with you and hope to develop us working together better and better as we go along. Somehow I am developing a much deeper relationship with you and the project and maybe that in itself will be the most rewarding part in it in the end. (From an email by Gudrun 1.12.06)'

9. **GOOGLE:** Discussions and information about Google and our ranking in Google.

Examples:

'I just checked Google in view of your comments about the fall in page views.....sure enough, from being near the top for the search term sex and relationships, the site is now nowhere to be seen for that search term. This kind of behavior is erratic and illogical, and it goes far beyond any concept of fairness and "cycling" of the search results. While Google have no reason to care about the effect of what they do on the webmaster community, they are supposed to be serving better results to the surfer - a proposition rendered meaningless

by the implicit fact that a website can be so good - according to their criteria - to be near the top of the search results one day, then nowhere to be seen the next, and so on. (From an email by Rod 15.8.06)'

'I don't know in detail, but I have seen major swings in the search engine results this last few days, and checking today reveals a number of huge moves for various sites I monitor both up and down. It implies Google are testing new algorithms again, and that the results will stabilise for a while in a few days. Unfortunately, unlike the pre-mid-2006 period, the implementation of the new hardware and software in 2006 (the so-called "Big Daddy" update) has obviously given them the ability to do much more varied and extensive testing of the algorithm. All I can say is don't panic - it will be OK. (From an email by Rod 9.5.07)'

10. **SALES:** Issues about money, sales and procedures around money.

Examples:

'Feel free to set up the cheque with CCBill whenever, we can settle any residual amounts once it's in place, so no worries about quarter of the year. Please make it as easy as possible for yourself. Did get envelope with money today so thanks! (From an email by Gudrun 8.5.07)'

'Still wondering how we can record sales in away that makes it comparable say month by month or week by week how we are doing. Actually week by week may be good as I can then link it to Google Analytics figures. Would there be a way of doing this? (From an email by Gudrun 9.7.06)'

11. **REFLECTIONS:** Reflexive thinking, analytical comments about Sex-and-Relationships and our work on it.

Examples:

'There are so many ways of presenting this material, but none of them is worth a monkey's bottom if they can't be seen in the search engines. Therefore in some sense the issues of readability and target audience become subservient to Google's requirements for intelligent text of substance, authority text if you like, which other sites of authority will link to. It seems to me this is probably why so many sites have sunk without trace (too accessible, not enough authority) and why our path is probably correct, regardless of the majority of our potential audience having a reading age of 12 (it's probably lower in the USA). (From an email by Rod 6.8.07)'

'Thanks for your email. Yes. please, be much more explicit about what you are doing. I want to know!!! And I want to learn as well, but apart from that it'll be nice to know what you are doing so I feel like we are doing this as a team. I guess I am a bit more explicit with my blog, you can often go and read up what I am doing. If you ever feel like more blogging, it would be great if you use your blog in the same way. That would give me a bit of a written record too as to what you do as a web master. However, talking is fab too. (From an email by Gudrun 4.10.06)

12. **IDEAS:** New ideas for improvements for Sex-and-Relationships.

Examples:

‘My only residual concern is that of pitching the text at the right level, and I thought your suggestion of a quick and easy guide to sex and relationships was worth more thought. (From an email by Rod 6.8.07)’

‘Also, you have now put on the ask for links box. My original idea for it is quite a bit different, so wanted to tell you about that. I have no idea, which one would be better, so will leave that decision to you. You have made it quite formal with inviting web masters to link to us. I would do it more informal, and ask all people, who like the site to support us by linking to us, or talking about us in their blogs or online fora etc. I think that way we get more people involved, not just web masters. I would also put the box on all pages, or at least also on the contact page and maybe change the colour. What do you think? (From an email by Gudrun 28.3.07)’

13. **TECHNOLOGY:** Discussions and information about technical issues.

Examples:

‘Sounds great to me! Bit overwhelming to come home to 1000+ emails, even if most of them are spam. I like the idea of spam interceptors, and will investigate the details..... (From an email by Rod 26.9.07)’

‘You're right in what you say about downloading the site, the way to avoid duplication is to bring the site folder over to the left but don't put it over any other folder, just drop it in what I call the white space (so it doesn't highlight any other folder already there). That way it will simply overwrite the files rather than producing a duplicate site inside the existing folder. (From an email by Rod 1.10.06)’

14. **PHD:** Issues about my PhD and my work on it.

Examples:

‘Otherwise, I am doing really quite well, chilling out and fiddling with my PhD. It's quite amazing to have so much time off without traveling or doing other things. I feel like I am now really making sense of the last step of the PhD, the writing. It's always important that things take shape in my head first. Once they have done so, translating what's in my head onto paper isn't stressful any more. I feel like I have really got there now with the PhD! (From an email by Gudrun 29.12.07)’

‘Action research? Well, yes, not sure any books are that good on it, will see what articles I have. However, we could have a longer conversation about it when we meet, or I could write a document specifically for you, which would feed into the PhD. What's the bits you want to understand? If I write an introductory paper on it, very basic, I could put that on the

web site as well under RH. See whether you can give me some direction about what you still need to know. (From an email by Gudrun 1.11.06)

15. **JOBS:** Discussions about procedures for working together, tasks, which need completing or have already been completed.

Examples:

'Many small changes to correct discrepancies of typeface between Front Page, Patrick's machine, Macs, and IE browser. E.g. getting rid of the incorrect quote marks - loads of silly things that will make the html more legible to Google. (from an email by Rod 5.10.06)'

'Excellent, that's all fab. Will have a look at the picture now. I guess the pics are nothing special, but they do make the text look much more interesting. I think they are pretty good. the only add on I would make, which is really boring, is that it needs a bit more space between pics and the text next to it, so the sideways spacing needs increasing. I appreciate that that's a really dull job.... (From an email by Gudrun 3.5.07)'

16. **WRITING:** Comments about writing content for Sex-and-Relationships.

Examples:

'Have now uploaded new page on female perspective on premature ejaculation. I really had to get that done before I'll go mostly because I started to get really frustrated with myself. The whole page took me from sitting down to uploading the related pages with added in hyperlinks exactly 1 hour! Why the hell have I been avoiding this for again? Need to think much more about writing. (From an email by Gudrun 2.9.06)'

'.....on all my other sites, I've gone with American spelling (emphasize, behavior, color) - but this one is (mostly) UK spelling. I think it better to go with the American spelling, simply because that's how most of our audience spell. Do you agree? (From an email by Rod 16.11.06)'

17. **DATA:** Comments about data collection, data analysis and data interpretation.

Examples:

'I have incorporated your two questions into the survey, but had to delete the first entry to do so, which is ok. However, it was a good one, it was from a guy, over 50, had read more than 5 pages, wanted to access the site again and had found what he was looking for on erectile dysfunction. It's good to feel we are doing something useful. No emails yet in response to my requests for links on STDs. (From an email by Gudrun 6.8.07)'

'In relation to the Google Analytics figures: It recorded in total 8,430 visitors, which gives us a ratio of 1 sale per 702.5 visitors. I guess it gives us a base line! Will put more info on the rest of the figures for December on the blog, (From an email by Gudrun 3.1.07)'

Appendix 3: Demographics Survey 9.8.06 – 28.10.06

Informed Consent Statement¹³

This questionnaire is part of a PhD research project at Manchester University, UK. The data you may contribute by filling in this questionnaire will be used to improve the service we offer on sex-and-relationships.com. Any data we collect will be treated as confidential. You do not have to allow us to use your data and if this is the case, please do not fill in this questionnaire. However, if you are willing to contribute to this project, please tick the consent box and fill in the following questionnaire. Thank you for your contribution. *

I accept

Basic statistics

2. What is your gender?*

Select at least 1 response and no more than 1 response.

Male

Female

Transgender

3. How old are you?*

Select at least 1 response and no more than 1 response.

below 16 years

16 - 19 years

20 - 29 years

30 - 39 years

40 - 49 years

50 years and above

4. What is your sexual orientation?*

Select at least 1 response and no more than 1 response.

Homosexual

Heterosexual

Bisexual

Other, please specify

5. What is your geographical location?*

Select at least 1 response and no more than 1 response.

North America (US and Canada)

Europe

South America

Australia and New Zealand

South East Asia (China, Japan, Rep. of Korea, etc.)

Far East (Indian subcontinent)

Middle East

Central Asia

¹³ Underlined text constitutes a headline for one page of the survey, which consists in total of 5 pages including an informed consent statement and a thank you page at the end.

¹⁴ A star denotes a mandatory question.

Africa
Central America and Caribbean
Oceania
or specify your location in your own terms

Your Interests

6. Have you visited the site before?*

Yes No

7. What are you looking for on this site?¹⁵

8. Please let us know any comments you have about our web site!

Accessibility and inclusiveness

9. Do you think it is appropriate that there are only pictures of white heterosexual couples in our logo banner?

10. Do you think it would improve this web site if we include pictures of non-white couples?

11. Would you like to see more content on homosexual or bisexual sexuality and relationships?

12. Do you have any other comments on making the site accessible to different groups of people?

Thanks

THANK YOU FOR COMPLETING THIS SURVEY!

Your answers will help us improve this web site. We hope to get to know our viewers and their interests better and make this web site as interactive as possible. Please don't hesitate to send us comments via our 'Contact Us' page.

All the best, Anna

¹⁵ No star at the end of the question describes it as an optional question

Appendix 4: Email Advice Service Contact Page

Contact us for free and anonymous advice

As part of the research project into this web site, **we would like to offer you a free and anonymous email advice service on psychosexual issues and relationships.** If you would like more information on anything about sexuality and relationships please email us. Choose which of the authors you would like to approach directly:

anna@sex-and-relationships.com (female)

or

rod@sex-and-relationships.com (male)

How to use our advice service:

- **We assume that all names and email address you are writing from are completely anonymous and not connected to your real name or contact details.** Please set up a new email address at Yahoo or Hotmail if you want the assurance of complete anonymity. **This is important, because any data which is not encrypted can be read while in transit on the internet.** Please protect your privacy by not including any details (name, address, work email address), which can identify you when you write to us.
- We will save your query and our answers to you for further reference and to be included in our research project (see below). However, the email address which you wrote to us from stays separate from this data. Your email address only stays on our web email server for 1 month before being deleted.
- **Give us 3 - 4 days to reply to you.**
- **If you haven't heard from us within 1 week:** Please assume our reply to you has got lost! Currently, **we are answering all queries** which people send to us. However, from our follow up survey it appears that some of our replies do not arrive. Firstly, please check your spam filter. Secondly, please check my blog, I may be on holiday. Thirdly, assume we have replied, but our email got lost. **PLEASE WRITE TO US AGAIN AND LET US KNOW!** I spend up to 45 minutes answering individual emails, the last thing I would want is for it not to arrive in your mail box!
- **Please write some words about this service into your emails subject field, e.g.** "Hi Anna...". As you can imagine leaving an email address on a web site means we get loads and loads and LOADS of spam and that way it's easier for us to spot your email.

- This email advice service is part of a PhD research project at Manchester University, UK. We are collecting information about the use of this web site for information on psychosexual and relationship issues to develop an online sexual health service called sex-and-relationships.com. **The data you contribute by using this service will be used in the research on this site.** Any data we collect will be treated as confidential and is anonymous. The collected data will be used for this purpose only and will not be disclosed to any third party. You do not have to allow us to use your data and if this is the case, please let us know in your email.
- The email advice service is a way for us to develop text for pages for the web site according to the real needs of our visitors. **We may use our answers to you as the basis for a page we write for the project. However, we will never publish your query to us on our web site.**
- As part of the research project **we would like to evaluate the quality of our email advice service. To do that we will send you an email with a link to a confidential survey** 1-2 weeks after we have replied to your email. We would be grateful if you could help us improve our service by following the link and completing the follow up questionnaire.
- Both of us have had extensive training in psychotherapy. Anna is a qualified psychotherapist running a private practice, teaching and supervising. Rod has completed his training, but has then veered off into online work and has been doing that ever since. We both hope to **give you advice and information which is accurate and of high quality. However, we take no responsibility for how you might apply the information we offer.** Additionally, **we are not medical doctors nor do we know everything**, so please use common sense when using information from this web site and advice service. Please look at our [disclaimer](#) before using the service.
- If you want to find out a bit more about how [online counseling works](#), please [click here](#).

last edited 25.11.07

Appendix 5: Demographic data of survey respondents

Demographics Survey 9.8.06 – 28.10.06

The 'demographics survey' had been accessible to visitors from the 9.8.06 until the 28.10.06 through a link on the home page. 103 respondents clicked on the informed consent statement and completed the first page with questions collecting demographic data.

The gender balance was equal with 51% of respondents clicking on 'male' and 49% of respondents on 'female', with one respondent clicking on 'transgender'. The distribution of respondents across age ranges was also very even. Only 1 respondent or 1% stated he or she was below 16 years of age. 10% or respondents stated they were between 16-19 years old. Additionally, 26% stated they were between 20-29 years old, 20% stated that they were between 30-39 years old, 25% clicked on 40-49 years of age and 19% on 50 years and above.

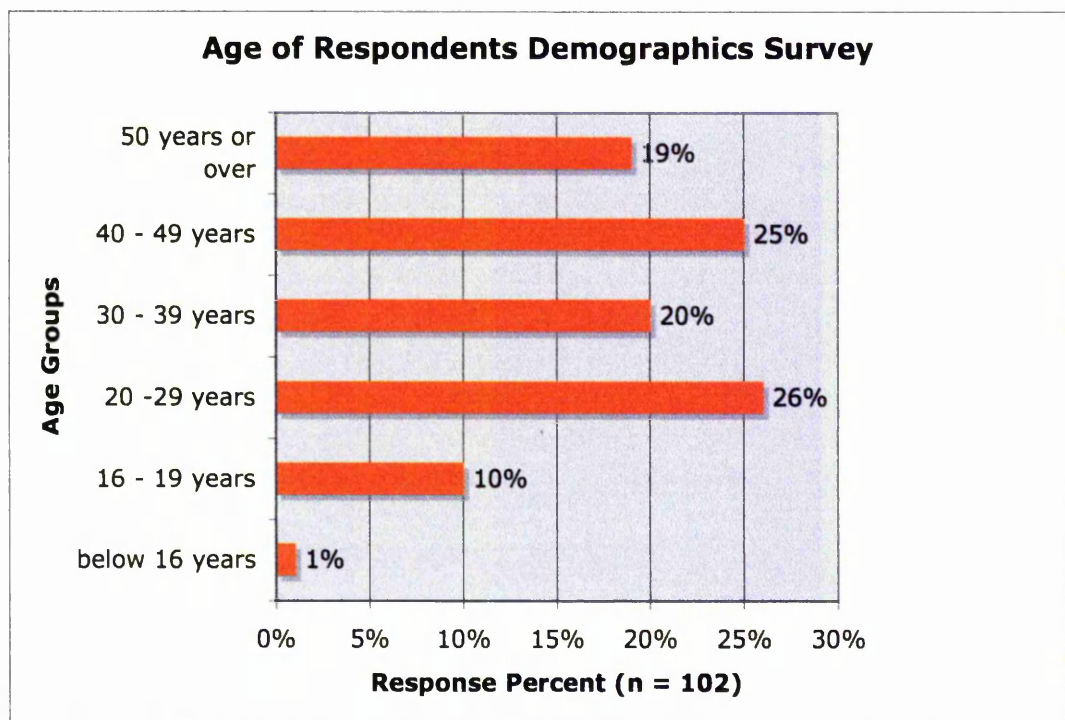


Diagram 22: Age distribution in percentage of respondents to the demographics survey.

With respect to our question about sexual orientation of participants 9% stated 'homosexual', 72% 'heterosexual' and 13% 'bisexual'. We received 8 answers under 'others' most of them stating 'no answer'.

As to their geographic location 56 respondents or 55% stated North America as their geographical location. 22 respondents or 22% stated Europe, 2 or 2% South America, 7 or 7% Australia and New Zealand, 3 or 3% South East Asia, 3 the Indian Subcontinent, 3 the Middle East, 2 Central Asia, 3 Africa, and 1 Oceania and 1 respondent from Central America and the Caribbean. Overall more than half of our respondents located themselves in North America and about one fifth in Europe. All other regions of the globe were represented by at least one respondent.

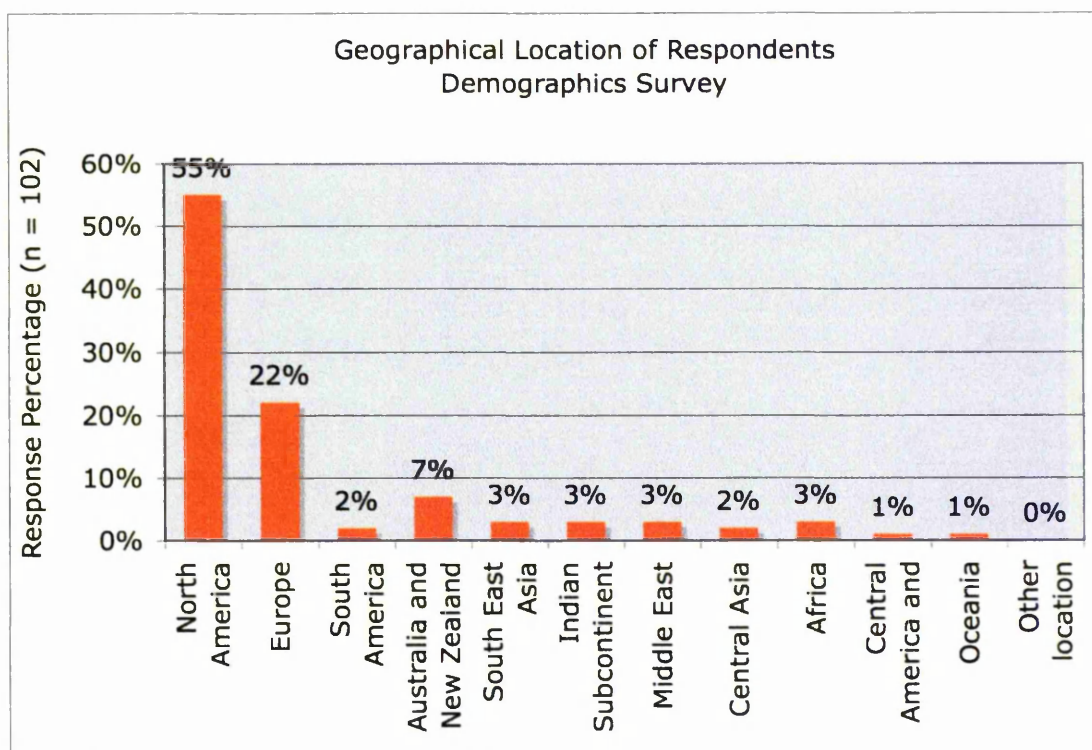


Diagram 23: Geographical location of respondents to the demographics survey (n = 102)

Language Survey

The 'language survey' was open from the 28.10.06 until the 23.3.07. Both the informed consent statement and the demographics page were completed by 64 respondents. Of the 64 respondents 47 stated that they were male (73%) and 17 respondents ticked female (27%). With respect to sexual orientation 47 or 73% stated heterosexual 10 or 16% homosexual, 4 or 6% bisexual and 3 or 5% of respondents gave no answer. Diagram 15 gives the age distribution of respondents and diagram 16 their geographical location.

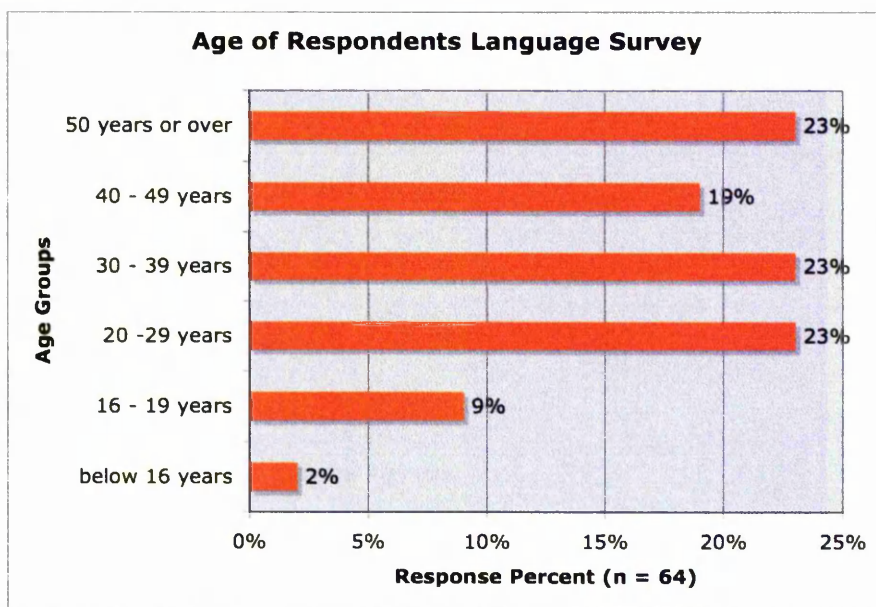


Diagram 24: Age distribution in percentage of respondents to the language survey (n = 64)

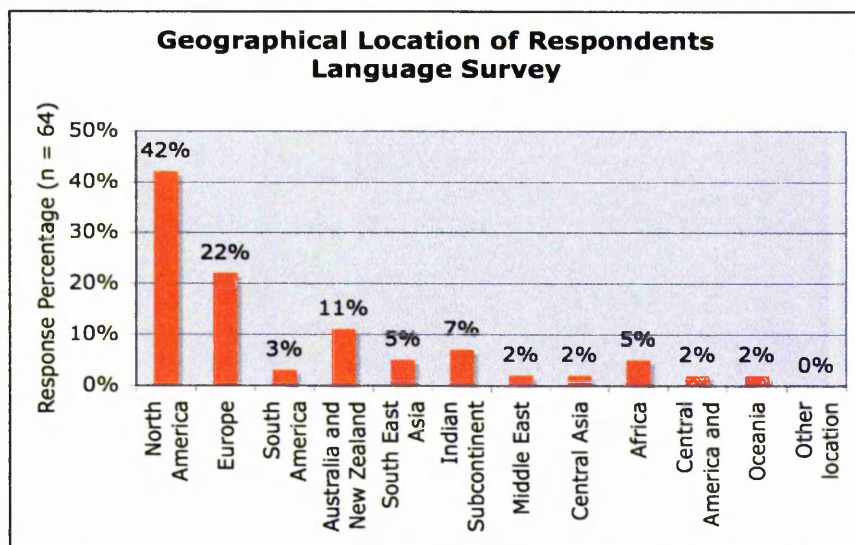


Diagram 25: Geographical location of respondents to the language survey (n = 64)

Sex Education Survey

The 'sex education survey' was open from the 23.3.07 until the 5.8.07 and 240 participants completed the informed consent statement and the first page of the survey. 140 or 59% of respondents stated they were male, 96 or 40% of respondents stated female and 4 or 2% stated transgender. With respect to sexual orientation 23 or 10% stated homosexual, 187 or 78% stated heterosexual, 24 or 10% stated bisexual and 6 or 2% of respondents gave no answer. Age distribution and location of respondents is given in the diagrams below.

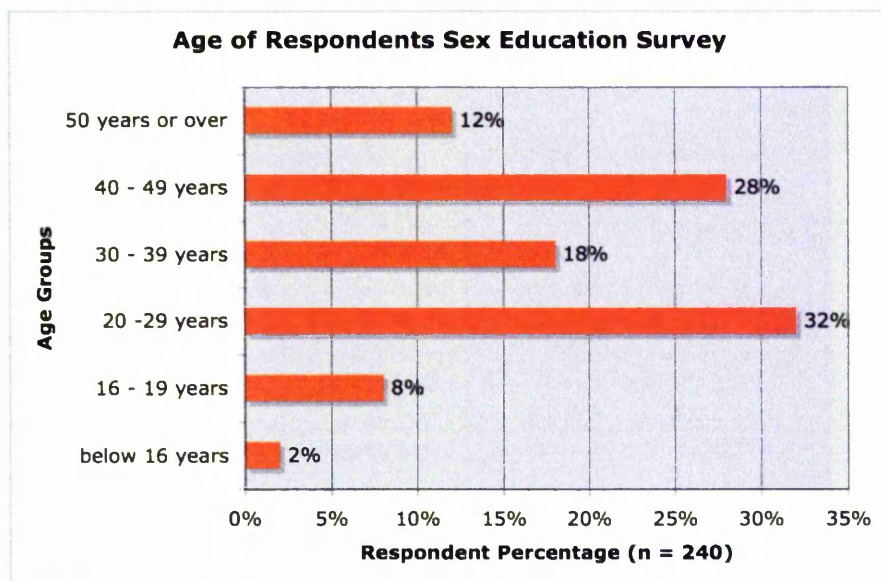


Diagram 26: Age distribution in percentage of respondents to the sex education survey (n = 240)

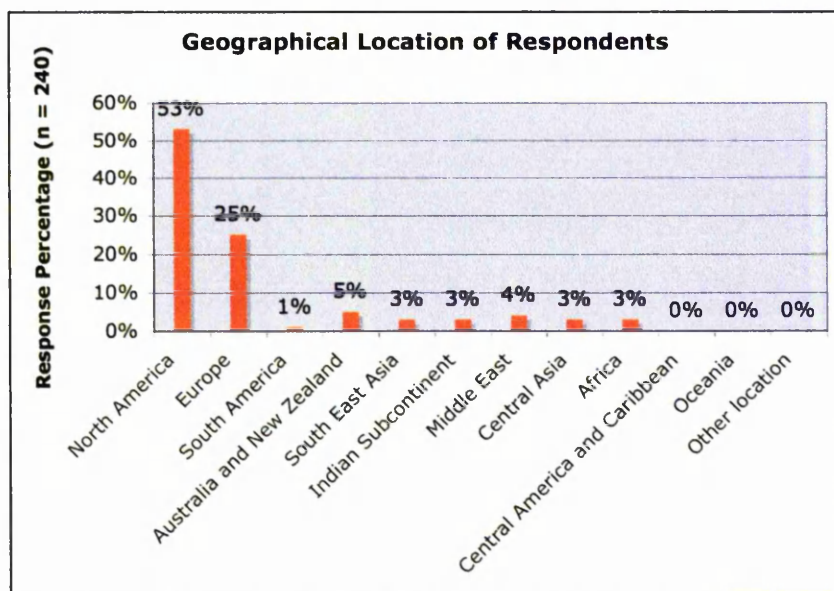
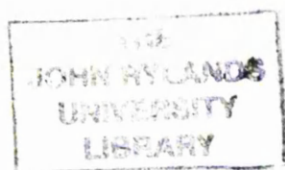


Diagram 27: Geographical location of respondents to the sex education survey (n = 240)



Site Usage Survey

The survey ‘site usage’ was accessible to participants between the 5.8.07 and the 31.12.07. 152 participants completed the informed consent statement and the demographics section. Of those 152 respondents 94 or 65% identified themselves as male, 56 or 37% as female and 2 or 1% as transgender. With respect to sexual orientation 12 or 8% identified themselves as homosexual, 120 or 80% as heterosexual, 15 or 10% as bisexual and 5 or 3% entered ‘other’ but did not specify further.

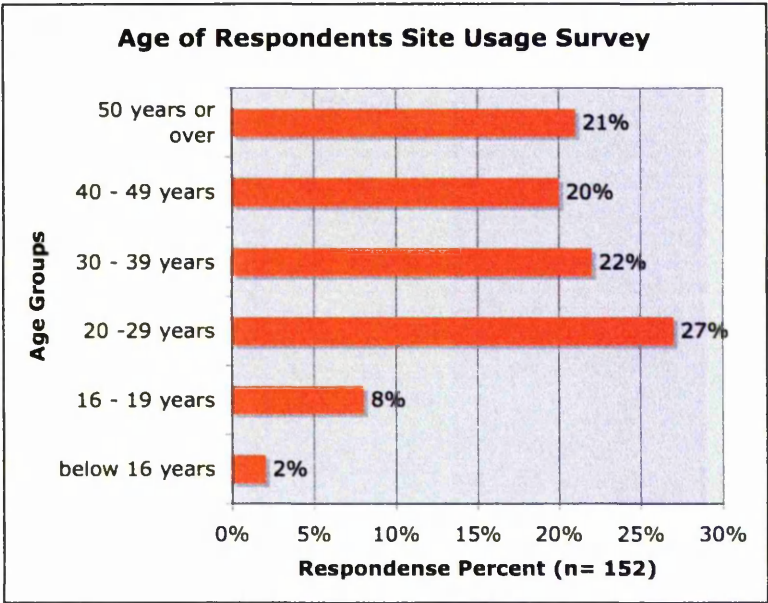


Diagram 28: Age distribution in percentage of respondents to the site usage survey (n = 152)

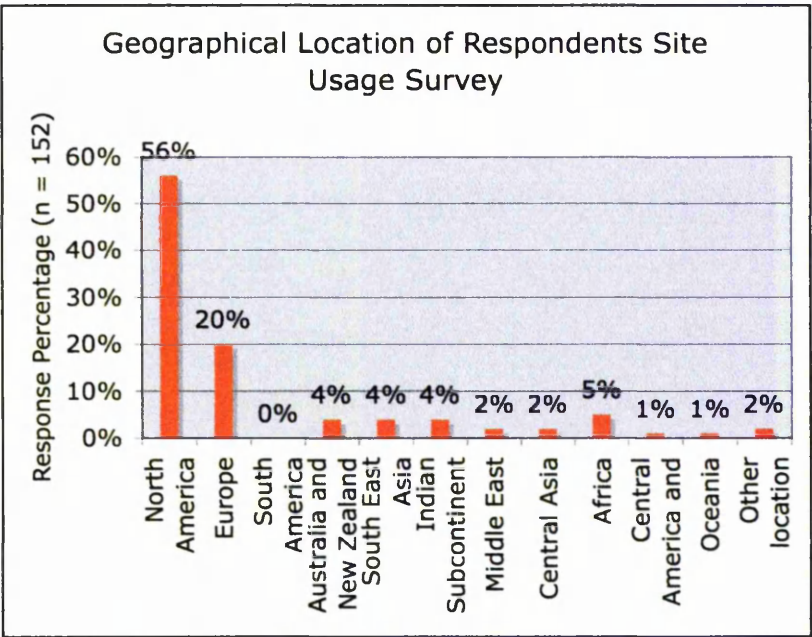


Diagram 29: Geographical location of respondents to the site usage survey (n = 152)