

Deaf and television news: finding a better path to knowledge

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been accepted for the award of any other degree or diploma of a university or other institution of higher learning.

A handwritten signature in black ink, appearing to read 'Danielle L. Mulrennan', with a large, stylized flourish at the end.

Danielle L. Mulrennan

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Abstract

Television broadcast news is a complex construct of imagery and sound which provides an audio-visual representation of facts and information on events deemed newsworthy and of interest to the viewing audience by the broadcasting network. The audio (sound) and the video (pictures) work in harmony with each other to give a total experience of the news message. However, these two types of content are not mutually exclusive; therefore, when a viewer's ability to receive either of these is impaired by a disability such as a hearing impairment, the efficacy of the news message is likely to diminish. Accordingly, this study has answered the question: How does a Deaf person position himself or herself in the home environment in relation to a television news broadcast. By using the interpretative paradigm, this study focused on four Deaf adults who have a significant hearing impairment, and use sign language as their primary mode of receptive and expressive communication. Video-taped ethnographic observation and field notes were used to record the behaviour of the adults while watching a television news bulletin. The data were analysed using a qualitative research methodology, Multi-modal Interaction Analysis (Norris, 2009; Norris, 2011) which provides an holistic analysis of the multiple real-time sequential and simultaneous communication modes that participants engage in while watching television news. Traditional research in this area has addressed the Deaf within social, educational and linguistic contexts. However, until now, the area of the interactions between Deaf individuals and television broadcast media has not been investigated.

Introduction

Background of the study

According to Habermas (1964) newspapers and magazines, radio and television are the media of the public sphere. Furthermore, citizens are a public body which should have the freedom to gather and express opinion and communicate information freely received without influence (Habermas, 1964). Television broadcast news has been a significant ingredient in our regular news diet since the early BBC broadcasts of the 1930s. Shook et al. (2009) state that “television’s primary strength is the television screen, and through that screen its ability to help viewers vicariously experience – hence understand – current and historical events” (p. 2). The primary language of television news is widely acknowledged as the pictures, and the medium’s secondary language, the sound, is oft overlooked. The two components work together in a complementary fashion to bring meaning to the television news message. The television viewer mediates the news message through the communicative modes of sight and hearing. However, where the viewer is Deaf, the message becomes diminished and the information can likely become compromised. To similar effect, a viewer who watches a television news broadcast with the sound off is also likely to have little understanding of the news story.

For academics, the challenge is to discern the extent to which this occurs, by empirical studies into the viewing experience of the Deaf person. As a sensory

impairment, Deafness is regarded as having a greater impact on an individual's receptive communication than blindness. For example, while a blind person cannot see, they are most often able to understand the world around them through environment sounds, conversations and other auditory cues. Deaf-blind pioneer, Helen Keller, wrote succinctly in a letter to Dr Kerr Love in 1910:

The problems of deafness are deeper and more complex, if not more important, than those of blindness. Deafness is a much worse misfortune. For it means the loss of the most vital stimulus - the sound of the voice that brings language, sets thoughts astir and keeps us in the intellectual company of man. (Kerr Love, 1933, p.68).

Deaf woman Rachel Noble (personal communication, March 21, 2011) commented that blind people will access information and ideas through conversation by using their imagination to create pictures from the descriptions provided; however, a Deaf person does not receive the language needed to construct the concepts and meanings behind what is being experienced as seen. An example of this phenomenon is the circumstances experienced during the occurrence of a fire engine heading to a fire, where a hearing person may experience the situation thus: the siren is heard; they will localize the origin of the sound and follow its tone, loudness and frequency in order to decode the location and magnitude of the event the vehicle is traveling to. This process of thought selection is completed when the fire engine appears, and the visual cue of speed together with the decreasing or increasing sound of the siren tell them the proximity of the incident and therefore they can determine whether there is any immediate danger. This scenario was presented to Rachel Noble, who described the situation as it would typically unfold to her. Noble (personal communication, March 21, 2011) stated the first indication of the occurrence would be when she

noticed a hearing person in close proximity suddenly become distracted, or, if alone, the view of a fire engine passing if she was gazing in that direction; she would watch it travel along her line of sight while scanning the landscape for smoke or other clues to help her judge her safety more accurately, something which could take several minutes, long after the hearing person knows he is safe, and has returned to his activities.

This example demonstrates the typical extent to which a Deaf person has to use their eyes to decode environmental cues the hearing person takes for granted. Furthermore, when these cues are condensed into the audio-visual medium of television news, the Deaf person's ability to absorb the story is likely to become compromised. However, it is logical to first benchmark, through ethnographic enquiry, how a Deaf person interacts with television news content within their home environment in order to identify the communicative modes and how they are applied.

New Zealand television and the Deaf community: a brief history

Television in New Zealand was first established in 1960 using the British Broadcasting Corporation model. A number of public service broadcasters have also adopted key elements of this model, including Australian Broadcasting Corporation (ABC) and Special Broadcasting Service (SBS) in Australia, Canadian Broadcasting Corporation (CBC), South African Broadcasting (SABC), French Broadcasting (TF1), RTE in Ireland and the Public Broadcasting Service (PBS) network in America. Ladd

(2003) states that from 1966 onwards, public broadcasters began to focus on how the Deaf could get better value from television as a medium. Dugdale (2001) comments that Britain became among the first countries to provide subtitling and Teletext services for the Deaf; however, New Zealand did not follow suit, much to the disappointment of the local Deaf community. In protest, in 1978 they gathered a petition of 19,000 signatures seeking a television captioning service (Mooar, 1991). Their campaign was unsuccessful, with the state broadcaster claiming the challenges of the “massive technological considerations involved” were too great and that “signing or captions would be regarded as irritating by viewers with normal hearing” (Dugdale, 2001, p. 165). Furthermore, Dugdale (2001) states that Deaf community member, John Hunt refused to pay his public broadcasting fee, and when prosecuted, other Deaf community members crowded the court room in protest, and paid his fine for him. Although the case drew much publicity, the public broadcaster stated it had neither the money nor the resources to provide captions. Then, in 1981, the broadcaster hosted “Telethon”, a live-to-air fundraiser targeting the International Year of the Disabled Person, and \$800,000 was used to set up a Teletext information service, albeit barely understood by many Deaf adults who had low levels of literacy or could not afford a Teletext-enabled television (Dugdale, 2001). Moreover, the broadcaster subsequently established a weekly news programme loosely based on the BBC’s *News Review for the Deaf* programme; but while the initiative was meritorious, the Deaf community was critical claiming that it was delivering out-of-date information: “old news, not what was happening day by day” (Dugdale, 2001, p. 171), adding that the

sign language used was too colloquial for the national audience. The programme was eventually ended.

With the deregulation of the New Zealand broadcasting sector in 1989, came the establishment of the state-owned enterprises, Television New Zealand (hereafter TVNZ) and Radio New Zealand (hereafter RNZ). In 1991 government fund-holder, NZ On Air commissioned a quantitative survey on the television preferences of the Deaf called “Everybody is talking at me, I don’t hear a word they’re saying” (a parody on a popular song at the time). Mooar (1991) states that the survey was conducted over 15 days in 15 cities, and 524 questionnaires were completed. Results of note include that the first choice of programme for captioning was News (44%), followed by Drama (15%); second choice was Documentaries (20%), followed by News (18%). Mooar (1991) states that one viewer commented: “You can’t imagine how frustrating it is for Mum and Dad to watch television when they have to explain a lot of what happens to me” (p. 11). Furthermore, a number of recommendations were made including “that English language appropriate to the skills of the Deaf be used in any captioning” and “that where possible, NZSL be introduced into existing programmes” (p. 14). Moreover, it was noted “that the Deaf have a civil and legal right to have access to television news all year round” (Mooar, 1991, p. 16). However, significant as they were, these recommendations were not followed (Dugdale, 2001).

However, captioning has since become prominent across all genres of television broadcast. In the past 20 years, TVNZ has been increasing its international programme acquisitions, many of which are captioned, and today 98% of TVNZ’s prime-time programmes on TV One and TV2 are captioned. This includes over 230

hours of New Zealand content each week, in particular, news and current affairs (TVNZ, 2011). This sets the network apart from its main competitor TV3 which does not feature broadcast captions. Maori Television, however, has the accolade of producing and screening “Kiwi Maara” the first tri-lingual television programme in the country, featuring Maori, English captions and a New Zealand Sign Language interpreter (Throng, 2007).

The Broadcasting Act (1989) states that TVNZ is to deliver seven principles which include maintaining and developing broadcasting as a system of human communications, and serving the people of New Zealand, reflecting identity and culture. Furthermore, access is required to a range of programmes catering for different sections of the community including accurate and impartial news and current affairs with due regard to the need for good taste and decency and the rights of the individual (Broadcasting Act, 1989).

Yet, it is my proposition that TVNZ is not fulfilling its obligations to the principles of identity, culture and access to content in particular news content. This proposition is based on the researcher’s own observations while interacting with Deaf New Zealand adults during the past 12 years, more notably, during the television news coverage of a high profile murder case in 2007. A young Deaf woman, Emma Agnew, had disappeared in her home city of Christchurch, while negotiating the sale of her motor vehicle with an unknown buyer. Several days after the disappearance, her body was discovered in dense bush, north of the city. Emma had been a well-known member of a prominent Deaf family and was recognised throughout the wider Deaf community. At the time her disappearance was reported, I was approached by

a senior member of the Deaf community seeking help to appease members who were becoming increasingly upset by stories they were unable to understand broadcast on television news each night. (It is noteworthy that these stories were being captioned at the time.) As the lecturer of television journalism at AUT University, I was able to produce a version of the nightly television news stories interpreted into NZSL which was uploaded to YouTube and linked to TVNZ's website, enabling the Deaf to use their own language to decode the television news story. Throughout the ten day period, Deaf organisations publicised the service, and the videos received between 700 and 1100 hits each night. These interpretations continue to be used today.

Figure 0.1.1.1: Danielle Mulrennan (right) reviews a recording of an NZSL interpretation of a news story by Sue Williams (left) in the AUT University television studio.



Aims of the research

This dissertation asks the question: How does a Deaf person position himself in the home environment in relation to a television news broadcast. It aims to provide greater understanding in the field of knowledge that juxtaposes the Deaf with television broadcast news by exploring through five communicative modes (Norris, 2009) the natural behaviours of a Deaf person in situ. The study involved four Deaf adults randomly selected from a population of 24,090 New Zealanders with minimal or no hearing, who use NZSL as their principle language and identify with Deaf culture. Data were gathered through videotaped ethnography and supporting field notes as each participant watched television during an hour long news bulletin, and was able to freely move about their home environment to reflect the natural occurrences of their daily lives during this time. Multi-modal Interaction Analysis (MIA) has been used as a qualitative measure of five communicative modes in order to gain greater understanding of the subconscious use of body language and non-verbal speak during social discourse (Norris, 2009).

Cheong and Karras (2009) state that there is a substantial body of research which addresses deafness, sign language and the education of the Deaf. However, there are significant gaps in knowledge relating to the Deaf and the media. Furthermore, “although a mélange of electronic media exist to facilitate Deaf persons' communication, there is a relative neglect of communication research on the media use by Deaf persons embedded in their every-day communication ecologies” (Cheong & Karras, 2009, p. 8).

Television broadcast news is received by the viewer through communication modes, therefore it is prudent to begin this academic enquiry through the qualitative analysis of how a Deaf person uses modes while interacting with the television during a news broadcast. This is to journey beyond assumptions the hearing population may have about Deaf behaviour, based on historic and cultural divergences. Moreover, it is only then we can gain greater understanding of the Deaf and the capabilities of the television news medium to provide them a path to knowledge. And it underpins a Multi-modal framework for research into the accessibility of television news broadcasting and the responsibility of public broadcasters to create accessibility - not just for mainstream audiences – but also for members of society who are marginalized by a disability.

Organisation of the study

This dissertation consists of three chapters. Following this introduction, Chapter 1 reviews extant literature that motivates the research question. Gaps in previous research are subsequently identified and the research question is raised for investigation.

Chapter 2 describes the qualitative methodological approach which has been applied to this study. Multi-modal Interactional Analysis (Norris 2004, 2011) has been adopted and justification for this approach is provided.

Chapter 3 presents key results from the research data and provides analysis of these findings with relevant examples.

This study concludes with a summary of the study findings and provides details of its implications within research and pedagogy, along with recommendations for further directions of inquiry.

Chapter 1: Literature review

1.1 Introduction

This chapter has been organized thematically in order to review the research and non-research literature in a way that summarises and synthesizes background information relevant to the research question. It provides a critique of the theoretical perspectives which underpin the research study, identifying notions and arguments for and against key issues. Furthermore, this chapter assesses these theories and identifies strengths and weaknesses therein. Gaps in this knowledge are identified, and rationale is provided to justify why such shortcomings are significant enough to be addressed. Finally, there is an explanation of how the reviewed literature has provided a focus for the research question and guided an appropriate methodology and design.

1.2 Deaf culture

Ladd (2003) largely attributes the origins of Deaf culture to the development of Deaf schools in the late eighteenth century, in which a unifying cultural entity was formed, based around the principal communications of sign language. However, Ladd states the medical nexus developed a model of deafness as an affliction, whereby a Deaf individual was expected to turn their back on their own communities

and integrate into the mainstream society if they were to attain full humanity (as cited in Lane & Philip, 1984). This concept continued into the early twentieth century, only to be displaced by the term “disability” which aligned the Deaf to the broader category of “physically impaired” (Ladd, 2003). At the time, there was a movement across Western societies to place children with disabilities into mainstream education and this led to the closure of hundreds of Deaf schools (as cited in Lee, 1991). It is clear that this would have had a significant impact on the subsequent growth of Deaf culture, and likely explains the few Deaf schools currently remaining. In New Zealand, for example, there are two schools for the Deaf: Kelston Deaf Education Centre in Auckland and Van Asch Deaf Education Centre in Christchurch. However, a prevailing characteristic reflecting Deaf culture continues to be the use of the term with the prominence of a capital “D” for Deaf.

To understand how the Deaf view the world, and in particular electronic representation of the world through television news, it is important to understand how the Deaf perceive themselves within society itself. Ratner (1991) states that self-perception can have a significant influence over a disabled person’s potential for personal success or failure in their role as a human being has been promulgated in Vygotsky’s theory of cultural psychology, in which an individual is the subject of cultural, rather than natural processes. In other words, a person’s environment and engagement within society has a far greater impact on them, than do the consequences of their disability. Boréus (2006) discusses the labeling of the disabled as “oppressed others”, a discourse which describes “others” or the related concept of “othering” as the marginalisation of those who become psychologically distanced

from the mainstream society represented as “us”. Furthermore, he give examples of “others” as those categorized as mentally deficient, or as deaf, stating there are four main concepts of discrimination: “1) exclusion from discourse; 2) negative other-presentation; 3) objectification; and 4) proposals pointing towards unfavourable non-linguistic treatment” (Boréus, 2006, p. 405).

However, in contrast, Ladd (2003), a Deaf academic, presents a culturo-linguistic model which takes social constructs of the Deaf experience to a more cognizant level, refuting “deafness” for “deafhood” as a term reflecting positivism and empowerment of the state of being a human being who happens to be Deaf. Furthermore, in this counter narrative, “deafhood” aims to disrupt the discourse of deafness in a traditional sense, arguing that it is a testimony to the resilience of Deaf people that they have survived what history has bestowed on them, and re-emerged in contemporary times with greater visibility in society and also in the media (Ladd, 2003). It is clear that this model of “deafhood” brings with it a sense of empowerment which enables participation beyond the safety of the Deaf community, enabling the phenomenon of Deaf culture to be sustained within the wider community.

Medical interventions of high powered hearing aids and cochlear implants offer Deaf people alternative communication choices, something which could be deemed as a positive factor. Ladd (2003) states that this presents two pathways: one, to resist the pressure to become more interlinked with the mainstream communities; and two, to adopt new technologies while retaining their cultural beliefs. It is reasonable to deduce that each pathway would have its own strengths and weaknesses

for the Deaf individual. However, one thing is clear: Sign language forms the basis of Deaf culture and this is most likely to remain a key factor in how a Deaf person differentiates themselves from one who is “hearing impaired”.

1.3 The language of the Deaf

Ladd (2003) states that some of the earliest and most important data recorded refers to sign language as being superior to spoken languages because it provided the ability to communicate across national boundaries. Therefore, it is surprising that in more recent times the pendulum swung strongly away from sign language in favour of “oralism” or lip-reading and speaking. And while this trend was also reflected in countries like New Zealand, Dugdale (2001) describes how the New Zealand Deaf community was not receptive to oralism, and campaigned and lobbied the government until the publication of the first New Zealand Sign Language (hereafter NZSL) dictionary in 1997, and then the adoption of NZSL as a national language in 2006 (New Zealand Sign Language Act, 2006). According to the Census (2006) there are 24,090 New Zealanders who use NZSL as their primary form of communication. Mulrennan, Noble and Wilson (2004) state that NZSL is a visual communication mode reflecting the fact that a Deaf person sees the world rather than hears it, and their culture of behaviours and values demonstrate this. It could be argued that written text is also a visual communication mode, yet it is claimed that it

is not particularly useful as many Deaf adults are believed to have a reading age of 8-9 years, or are capable only of reading the headlines of a tabloid newspaper (Ladd, 2003; Burnham et al., 2008). This statistic refers to the British and Australian Deaf and hearing impaired population, but it is also very likely to be relevant to the New Zealand Deaf population. What is not clear, however, is whether this statistic indicates shortcomings in the school education system, or reflects the fact that sign language contains a syntax and structure that differs from that of English language.

1.4 Deaf and television broadcast news

The Broadcasting Act (1989) states that, as the country's public broadcaster, Television New Zealand (hereafter TVNZ) is bound by seven principles. These principles include maintaining and developing broadcasting as a system of human communications, serving the people of New Zealand, reflecting their identity and culture, ensuring access to a range of programmes which cater for different sections of the community, and providing accurate and impartial news and current affairs programming. However, it is clear that the commercial imperatives of a deregulated and commercially-driven market pose a challenge to these ideologies. For example, Herman and McChesney (1998) state that the 1989 deregulation of the New Zealand broadcasting sector has had a negative effect on the public broadcasting sphere and is part of a global phenomenon. Furthermore, the rapid rise of the commercial television model has seen a corresponding decline in public service broadcasting even among the larger public broadcasters in Sweden, Germany and Britain where "survival as a public

service institution depends upon its becoming a significant commercial media force globally” (McChesney, 2008, p. 13).

It is proposed that where decisions are made on the basis of revenue generation which caters for the tastes of the wider populis, minority viewing interests will continue to be overlooked. Furthermore, the notion of a public service broadcaster providing all audiences with a pathway to inclusion in the broadcasting public sphere has been widely documented by many academics. Ladd (2003) attributes Britain as leading Europe with the introduction of Deaf television programmes in sign language in the 1970s. New Zealand followed suit in 1981, with a weekly news review programme (News Review), but as Dugdale (2001) states, while the concept was meritorious, its design was flawed by content which was up to a week out of date, and the use of regional sign language not always understood by a national audience. Had these issues been addressed, the programme would have provided a valuable platform on which to build a positive cultural identity among the Deaf. However, it is unlikely that the programme would have continued as in the post-deregulation era its cost would have far outstripped any revenue brought in by the necessarily small audience of viewers.

Nonetheless, the presence of sign language on television has brought confidence to the community, prestige in the eyes of the public and an increase in the numbers of lay people wanting to learn sign language (Ladd, 2003). Furthermore, while it is acknowledged that televised sign language can enhance the Deaf viewer’s broadcast experience, it also has applications within an educational setting. Academic inquiry has explored the use of multimedia to teach Deaf sign language

users. Davis (1999) states that receiving communication from an individual is very different from receiving information from a fixed communication medium, particularly in an educational setting where a student is situated in a classroom environment for significant periods of time. Two issues identified by Davis appear relevant to my research: Firstly, a Deaf person must continually look at the television screen or risk missing part of the message; and secondly, there are no natural breaks in the signed conversation which would allow the processing of new concepts or new vocabulary, particularly during finger-spelling of names or complex terms. Both these issues also have relevance to experience of the Deaf television broadcast news viewer.

1.5 Subtitling or captions as a means of mediation

“Television captions are a form of assistive text-based technology intended to make the auditory component of television accessible to viewers who are deaf or hard of hearing” (Burnham et al., 2008, p. 393).

Moar (1991) states that, in New Zealand, the news genre is the most popular choice of television programming for captioning among the Deaf albeit that the English language level is not always appropriate to that of Deaf viewers. Davis (1999) concedes that images on the screen help in the understanding of the captioned content delivered; however, where sign language is present, a Deaf person will likely ignore the captions. Therefore, the question is: How effective is captioning when used to

mediate television broadcast news? Due to a shortfall of academic enquiry on this topic, this study has drawn on the subtitling of foreign-language television programmes for comparison of common themes.

In considering the pros and cons of captioning, Koostra et al. (2002) state that, there is no clear empirical evidence which can be relied upon, and subjectivity lies in the individual viewer, the type of programme and the nature of the subtitles. However, Koostra et al. (2002) raise four issues: Firstly, part of the television picture is masked by captioning of texts, and while this can be generally accommodated by the viewer, it is critical within the news genre, where captioning obscures the name and title of interviewees. Secondly, captions are often condensed to match the average rate of speech, and information loss is not always avoidable. Thirdly, Koolstra et al. (as cited in Sohl, 1989) claim that the viewer's ability to understand what is seen is significantly slowed when subtitles are used. And fourthly, subtitles may distract the viewer away from the picture, resulting in a loss of meaning. Koostra (as cited in Gielen, 1988) states that eye-movement-registration experimentation indicates that viewers adopt a viewing strategy which focuses on a part of the television screen which allows them to look at the pictures and read the captions "almost simultaneously" (p. 331).

Burnham et al. (2008) state that the true accessibility of captions is understudied among viewers of lower literacy including the Deaf, and their literature is the result of the use of quantitative research methods which gauge comprehension levels vis-à-vis the amount and speed rate of captioned text on television on an Australian adult sample group. These findings inform this study in a broader sense, showing there is a direct

correlation between an individual's literacy level and the level of comprehension of information in a television news broadcast.

1.6 Summary

In answering the research question, this literature review has considered the fields of Deaf culture, the (non-verbal) language of the Deaf, the nature and effectiveness of the television broadcast news genre and associated themes. This has provided an epistemological framework of variables which influence the broader understanding of Deaf individuals and the relevant television systems. Evidence shows that the role of the Deaf person within society relies on Deaf culture as a cornerstone of a community of which sign language is a defining factor. Furthermore, while it is a person's right to have access to a television broadcasting system in order to participate in the public sphere, the research shows that the inherent nature of television broadcast news presents a challenge to individuals who rely on visual forms of communication, such as sign language. Moreover, while subtitling and captioning have been designed to enhance the viewing experience, in reality these have limited efficacy for the Deaf person.

This dissertation engages Multi-modal Interaction Analysis (Norris, 2009) as a methodology to achieve qualitative data which explores and interprets the verbal and non-verbal interactions of a sample group of Deaf adults and their engagement with the television broadcast news medium. This study is designed as a video

ethnography, in order to record and explore all relevant communication modes including gesture, head movement, proximity, layout and posture. Listening and speaking are not relevant, as all subjects are Deaf adults and their primary form of communication is NZSL.

It has been identified by Cheong and Karras (2009) that there is a dearth of research on interactions between Deaf adults and the media, and in particular, television news broadcasts. And while quantitative data exists on the comparison of behaviours between hearing and Deaf students using pre-recorded video content in an educational setting, there is no clear qualitative enquiry which affirms behavioural observations in the home environment. These themes are therefore addressed in this study, and the results and analysis will make a positive contribution to a broader level of inquiry into the relationship between the Deaf and the mass media.

Chapter 2: Methodology

2.1 Introduction

This chapter introduces and discusses the qualitative methodological approach and the research design most relevant to the examination of the research question: How does a Deaf person position themselves in the home environment in relation to a television news broadcast? It aims to provide greater understanding in the field of knowledge that juxtaposes the Deaf with television broadcast news by exploring, through five communicative modes (Norris, 2004), the natural behaviours of a Deaf person in situ. The methodology begins with a short contextual overview of media discourse as advanced by two leading linguists in the field (van Dijk, 2001; Cotter, 2001). This is applied to the proposed Multi-modal methodology (Norris, 2004) which considers the communicative modes engaged when a Deaf person interacts with the television set. This methodology and its relevance to the research question is then justified. It is followed by a description of the locations where the data collection has occurred, and details of the data collection process itself. Within the research process, there have been a number of ethical concerns, and these are outlined and addressed. The chapter concludes with a brief summary which recaps the methodological approach, its relevance to the research question and the value it provides in developing further research inquiry into the broader topic of the Deaf and the mass media.

2.2 Media discourse

According to van Dijk (2001), members of powerful social groups and institutions have access and control over public discourse, and the more control one has, the more influential and ultimately the more powerful one can be. Moreover, van Dijk (2001) states that by considering the notions of critical discourse analysis the researcher is able to define public discourse in terms of communicative events.

Cotter (2001) states that the discourse of the news media has two key components. The first is the news story itself, where texts, spoken or written, encode the values and the ideologies which have an impact on, and reflect upon, the world. The second is the process by which news is created, which focuses on “the norms and routines of the community of news practitioners” (Cotter, 2001, p. 418). Cotter acknowledges that the primary focus of the majority of media research focuses on the first component as outlined above.

Cotter adds that the two aforementioned key news media components underpin six primary approaches to analysis which are:

- i) critical, which is informed by social theory;
- ii) narrative/pragmatic/stylistic, which focuses on discourse-level elements and explanations such as presentation and the issues of audience response;
- iii) comparative/cross-cultural, the role of culture and politics in the production of news discourse;
- iv) media/communication studies, using traditional positivist methods;

v) practice-focused, where situated practices are often informed by ethnography;

and

vi) cognitive methods, relative to comprehension or aspects of mental structure. (2001, p. 418-419)

The approach most relevant to the research question is iii) comparative/cross-cultural method, as Deaf culture and the communication modes of the Deaf have a significant impact on the nature of the research design. Within the interpretive paradigm, a qualitative research methodology which utilises video ethnography as the primary form of data collection, is engaged to provide insight into how this marginalised cultural group of subjects uses inherent communication modes to mediate the television broadcast news message.

2.3 Methodological approach

The comparative/cross-cultural method is applied within the methodological framework during data gathering and analysis. The most relevant methodology for this form of enquiry is Multi-modal Interaction Analysis (Norris, 2002). This research project has used qualitative rather than quantitative methodologies, as modes cannot be counted (Norris, 2004).

Multi-modal methodology (hereafter MM) is a qualitative measure of communication modes which enables deeper exploration of discourse analysis (Norris, 2004). Norris states that MM Interaction Analysis (hereafter MIA) provides a mathematical framework to research human subconscious use of body language and non-verbal communication during social discourse. By breaking down the data into heuristic units of analysis, the ethnographic videorecorded data and supporting field notes will be analysed using MIA (Norris, 2004, 2011), to measure the use of the communicative modes of layout, proxemics, posture, gesture, and head movement. However, while MIA recognizes that language is often a dominant mode, it is not relevant to this study as the research subjects are Deaf, and their chosen form of communication is visual, rather than auditory. By treating each mode with equal value, objectivity is maintained and the researcher is able to construct meaning thematically and collectively. Furthermore, MIA defines actions at differing levels such as a higher-level action of meeting a friend, or a lower-level action of a single utterance (Norris, 2011); however they are not deemed relevant as these actions are present in conversations between two individuals, rather than when one individual interacts with a social tool, which in this study is a television set.

2.4 Data collection and analysis

2.4.1 Participants

Four participants have been randomly selected from a group of individuals who responded to a publicly displayed invitation to participate in the research project. The participants (females aged over 18 years) all lived in Auckland, due to ease of access of data gathering by the researcher, and identified themselves as being Deaf. All stated that they had a significant to profound hearing impairment, used NZSL as their primary form of communication, and identified with Deaf culture. They also stated that they watched television news on a regular basis. Deaf-plus, or multiple sensory disabled, participants were not invited to participate, it was identified that such candidates' secondary disabilities would likely impair their ability to provide reliable data for the methodology used.

The data was collected in the participants' home settings as they watched television news, between 6pm and 7pm. This time frame aligns to the television news programmes broadcast live-to-air on New Zealand's two free-to-air television networks, TVNZ and TV3, as these channels are readily accessible to all viewing audiences throughout New Zealand.

2.4.2 Instruments

As stated by Norris (2002), MM video transcription provides data for analysis of MM actions and interactions. Furthermore, where the action becomes mediated, such as through interaction with a computer or in this case a television set, the video transcription provides contextualization of the communication modes which feature therein, and the mediational means under which they are applied. Videotaped ethnographic observation was the preferred instrument in the gathering of data, and the videocamera was operated by the researcher in the home environment of each participant. The participants were able to go about their normal viewing habits in a setting they felt comfortable with. The video camera and the researcher were located in a room where a television set was positioned, 15 minutes prior to the news broadcast. This time lag was established so the presence of these instruments did not become an inadvertent “cue” for the participants to commence their engagement with the television news broadcast. The participants were able to move into and out of the room, engage in secondary actions, such as eating, drinking and communicating with another resident when they chose to do so naturally. In this way, the instruments aimed to minimize any risk of impacting on the data as participants went about their daily lives. The video camera and the researcher remained silently located until the news hour had concluded.

2.4.3 Data reliability

Data reliability becomes limited when a video camera which can be ably focused to capture specific interaction, but is unable to record peripheral actions due to the limited camera angle (Norris, 2004). Thus, the researcher has contextualized the videoethnography with supplementary field notes. These notes have included key elements within the environment of each participant, such as other residents who have been actively present on the periphery of the data gathering and may have influenced the reliability of the data. The researcher has also recorded details of the news content broadcast during the data gathering, in order to triangulate the influence the news discourse has on the participants' viewing actions. However, it is acknowledged that these details are likely to be of greater value in future research projects which probe further into the area of Deaf and the mass media.

The research design has been to focus on the visual evidence of communication modes, however, the data gathered features synchronized audio. While this may be deemed as unnecessary, it cannot be ruled out that sound messages may, in some subordinate way, affect the reliability of the data gathered. For example, a Deaf person may subconsciously react to a vibration which is felt when a very high or very low level frequency sound occurs.

2.4.4. Data validity measures

Issues of validity have been considered by the researcher. Norris (2004) acknowledges that MM transcription is a complex process because it requires the researcher to translate visual and auditory data into text for analysis; however, the communicative modes do not translate easily into language. For example, body posture which is easily recorded by the camera, is difficult to describe textually. MM transcription “is a constant interplay between analysis and method of description, and, of course, is always based in theoretical assumptions”. Therefore, in order for the data to be validated, the researcher should not simply analyze the images recorded, but instead relate those images to describe specific moments in time, and how the communication modes are played out by the participants (Norris, 2004, p. 65).

2.4.5 Data analysis

Data analysis methods, which feature in this research project, were determined by the research question which has driven the study and the method upon which the data has been gathered. The video ethnography has been analysed within an interpretive paradigm, using MM interaction analysis to identify the communication modes that occur when a Deaf person engages in watching television broadcast news discourse. The researcher has transcribed each of these modes independently, in

order to preserve the validity of the academic inquiry and minimize the risk of potential ambiguity or confusion. The results were then assembled into a combined transcription in order to provide an holistic overview of the data analysed.

2.4.6 Ethical considerations

In accordance with AUT University ethical requirements issued by the university's ethics committee, privacy and confidentiality were respected throughout the research process as personal details and data recorded during the course of the research have remained confidential to the researcher and supervisor. It is the interpretation of the data which has been published. In an acknowledgement of respect for Deaf culture, the design of this project has been achieved in consultation with Deaf Aotearoa New Zealand, the national organisation of Deaf New Zealanders which is guided by the principles of the New Zealand Disability Strategy.

Each of the four participants received general information on the study by email, and were provided with a printed Participant Information Sheet (appendix 1) and Consent Form (appendix 2). Both documents were discussed with the researcher using a NZSL interpreter on the date of data collection. The NZSL interpreter was also available throughout the data collection period to mediate communications between the researcher and the participants before and after the recording period. Furthermore, all participants to the study were advised that, as volunteers, they could withdraw at any time, without prejudice. Signed consent was obtained from all

participants prior to the commencement of the research project. Each participant was assured no identifying information would be included in the study, and that a number was assigned to each to ensure their confidentiality was preserved. Furthermore, all participants were assured that the information they provided would be used to fulfil the aims of the research project only.

A Confidentiality Agreement (appendix 3) was signed by the NZSL interpreter and an Observational Protocol (appendix 4) was completed and adhered to by the researcher throughout the data collection period.

As a parent of a deaf child, I have learned how to conduct myself with honour and good faith in the Deaf community through participation and showing respect for Deaf culture and the use of NZSL. I have interacted in a social context with the Deaf sector members on a regular basis for more than twelve years.

2.5. Summary

This chapter has outlined the research design and described in detail the research procedure undertaken. A qualitative approach was adopted to explore an area of academic inquiry which has been identified as under-researched within the literature reviewed. Within the interpretive paradigm, MM interaction research has been described as the methodology proposed. As outlined, this methodology has analyzed inherent communication modes recorded in video ethnography as the primary form of data collection. Data validity and reliability were achieved by

supplementing the video recordings with observational field notes. Finally, every effort has been made to preserve the integrity of the participants and integrate ethical considerations into the research process.

Chapter 3: Results and analysis

3.1 Introduction

This chapter presents an analysis of the research data gathered during the video ethnography, and the research question posed in chapter 1 is reiterated and addressed therein. From the hour-long recordings, shorter segments of up to 5 minutes duration have been selected as representative of the events which occurred. These qualitative results have been supplemented with observational field notes and these have been analysed using MIA (Norris, 2004) applied to five communication modes: layout, proxemics, posture, gesture and head movement. These modes were selected on the basis of relevance to the research question and the academic level of inquiry. Firstly, the results are broken down into heuristic units of analysis which are thematically addressed, then secondly, they are addressed collectively as part of the analysis at the end of this chapter.

3.2 Results

Figure 3.2.1.1
Layout of the living area of
Subject 1.

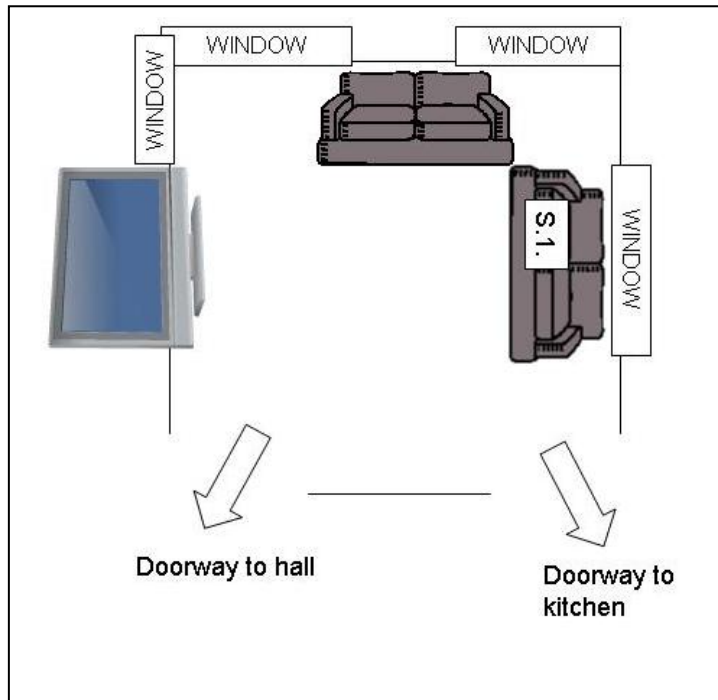


Figure 3.2.1.2
Layout of the living area of
Subject 2.

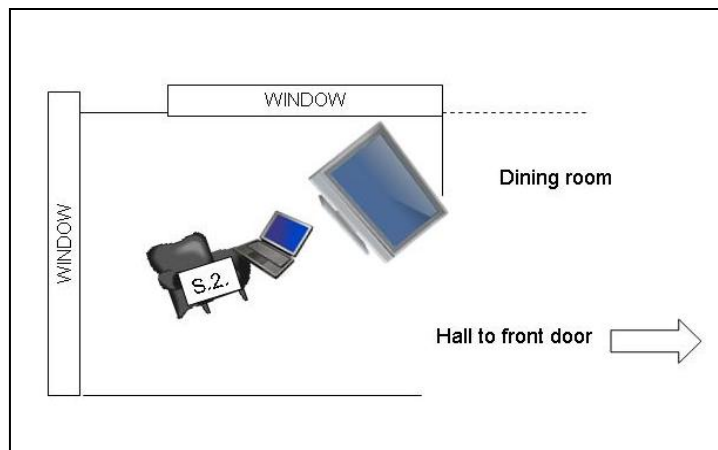


Figure 3.2.1.3
Layout of the living area of
Subject 3.

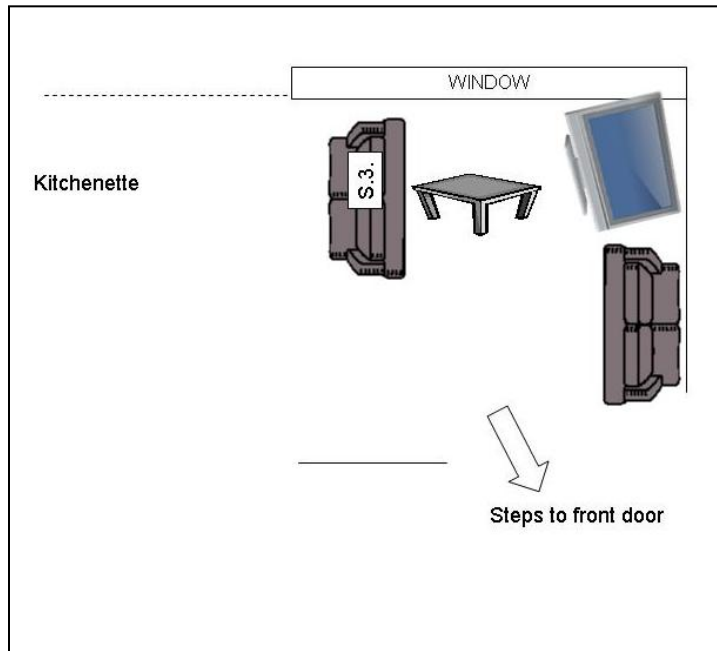


Figure 3.2.1.4

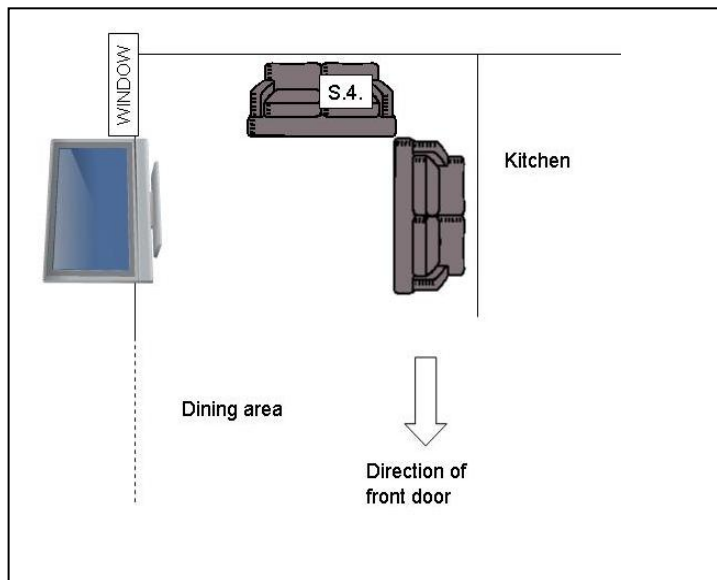


Figure 3.2.2.1a

Proxemic of the television set in the living area of Subject 1.

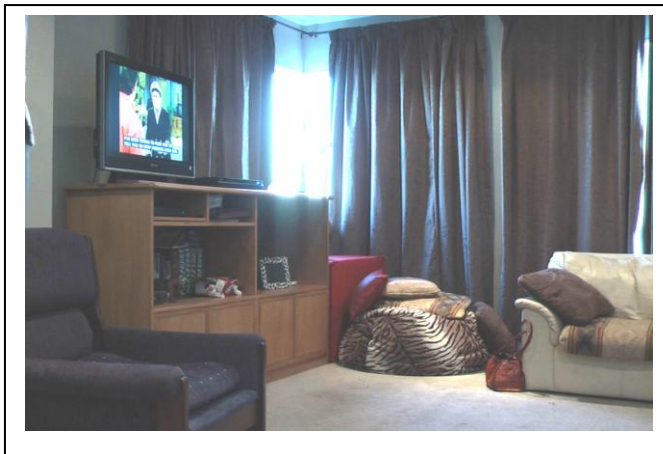


Figure 3.2.2.1b

Proxemic of Subject 1 from the viewing position.



Figure 3.2.2.2

Proxemic of Subject 2 to the television set.

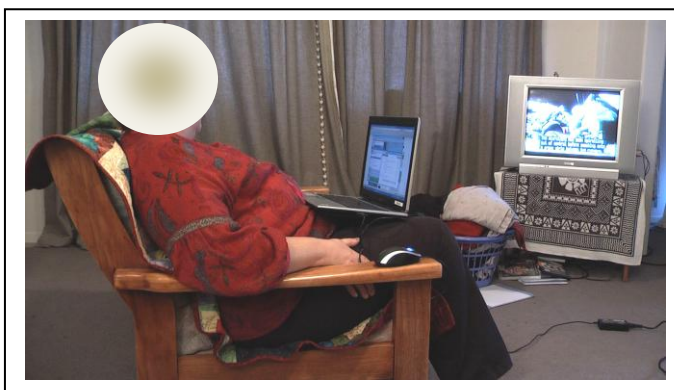


Figure 3.2.2.3a
Proxemic of Subject 3 from
the kitchenette.

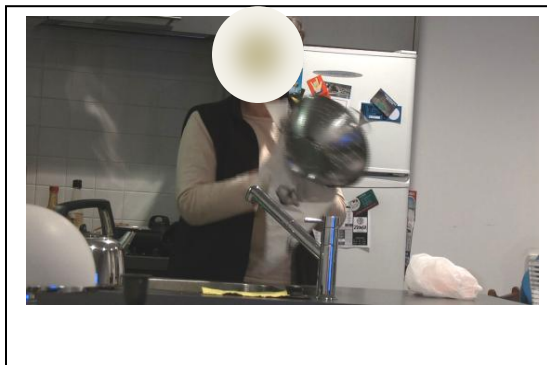


Figure 3.2.2.3b
Proxemic of Subject 3 from
the viewing position.

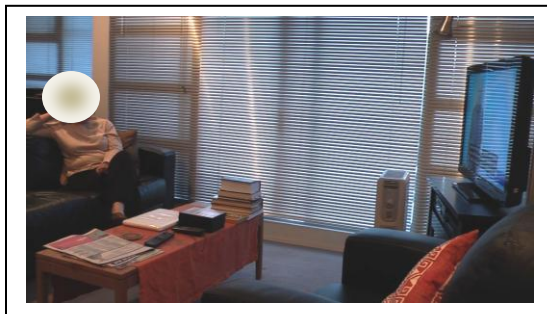


Figure 3.2.2.4a
Proxemic of the television set
in the living area of Subject 4.

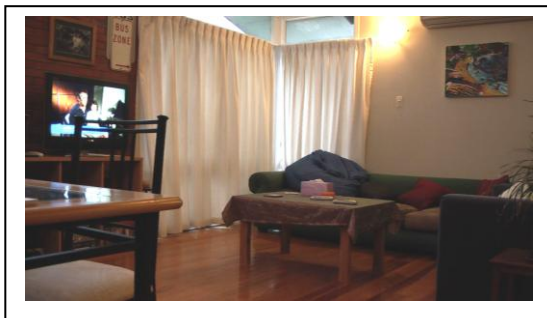


Figure 3.2.2.4b
Proxemic of Subject 4 from
the viewing position.



Figure 3.2.3.1
Posture of Subject 1.



Figure 3.2.3.2
Posture of Subject 2.

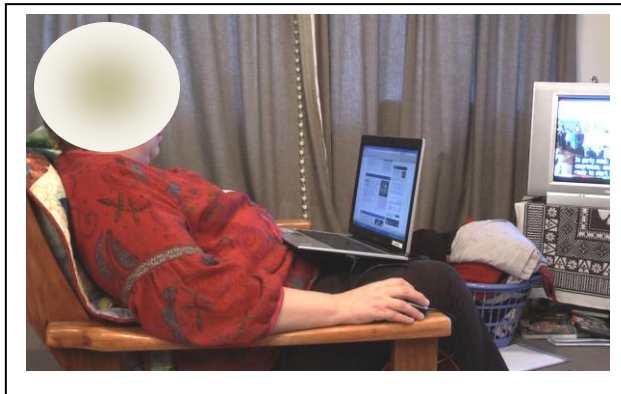


Figure 3.2.3.3a
Posture of Subject 3 in the
viewing position.

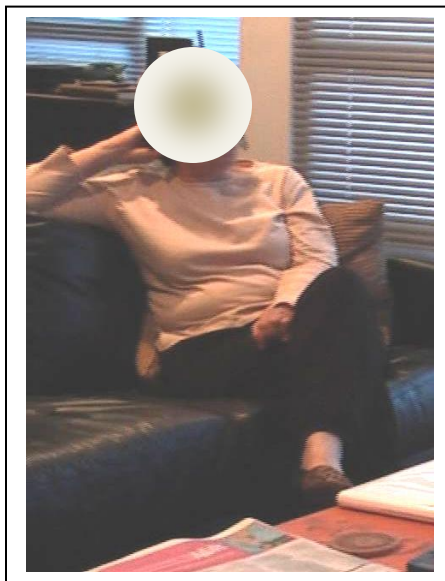


Figure 3.2.3.3b

Posture of Subject 3 while using a laptop in the viewing position.



Figure 3.2.3.3c

Posture of Subject 3 while her hand has moved to her face.

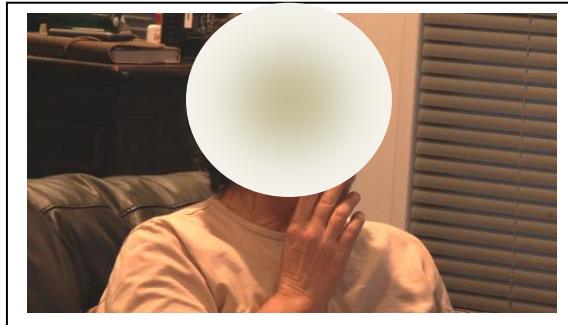


Figure 3.2.3.3d

Posture of Subject 3 while drying a pot in the kitchenette.

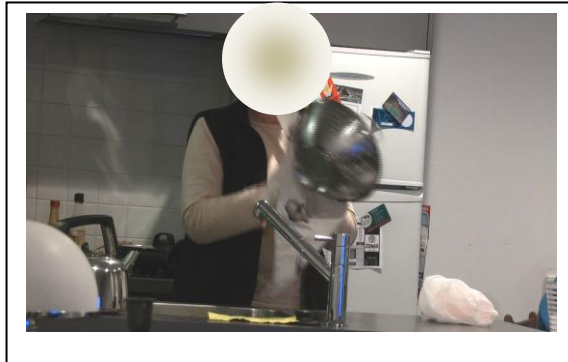


Figure 3.2.3.3e

Posture of Subject 3 while her hand has moved to her face in the kitchenette.



Figure 3.2.3.4

Posture of Subject 4 as she uses her mobile telephone.



Figure 3.2.4.1

Gesture of Subject 1 as she interacts with Adam.



Figure 3.2.5.1

Head movement of Subject 1 as she looks at Adam.



Figure 3.2.5.2

Head movement of Subject 2 as she looks at her laptop.

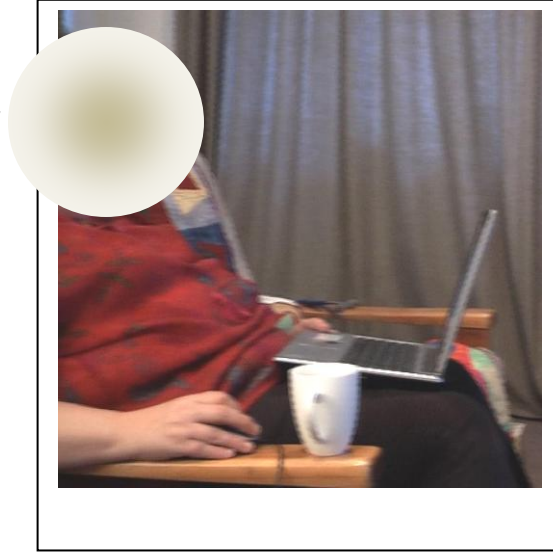


Figure 3.2.6.1a

Head movement of Subject 2 as she follows an online news story.

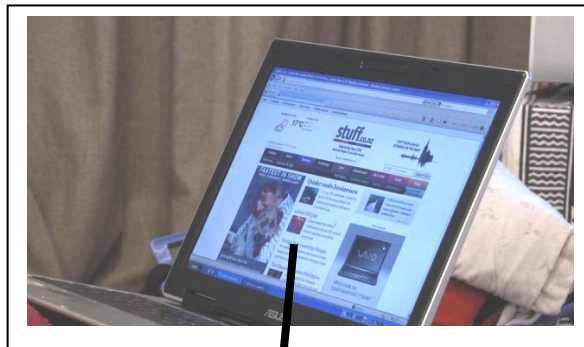
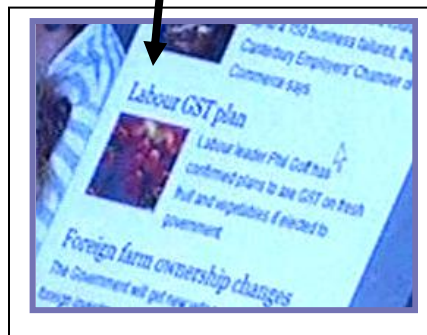


Figure 3.2.6.1b

A close up of the online news story featured in figure 3.2.6.1a.



3.2.1 Layout

“The communicative mode of layout refers to the setting and the objects found within it” (Norris, 2004, p. 49). Norris adds that the layout is a result of frozen actions, or moments in real-time, whereby a participant has interacted with (or moved) an object and positioned it within a room setting. Mulrennan et al. (2004) state that many Deaf people arrange the layout of their main living environments for ease of visibility, such as the placement of chairs and electronic equipment such as a television set. Furthermore, indoor lighting is typically stronger than in hearing homes and plain interior walls are a preferred option to patterned wallpaper, which may be regarded as visually distracting. All four participants chose to position the television set within the layout of their main living rooms, used a moderate to large size television set, and all sat on a couch or chair located to provide a direct eye-line to the hallway or entrance or front door of the home.

In figure 3.2.1.1, subject 1 had arranged the layout of her lounge so she can see the entrance ways into the room from the couch she sits on when watching the news.

In figure 3.2.1.2, subject 2 featured a laptop computer (with wireless modem) in the layout. This, she explained, was a regular action directly related to the television news broadcast viewing experience.

In figure 3.2.1.3, subject 3 located her television set so she could watch it when she was working in the adjoining kitchenette and move about her home.

Figure 3.2.1.4 shows subject 4 located the television set adjacent to the dining area and was able to see the television set by looking around the corner from the kitchen.

3.2.2 Proxemics

Norris (2004) states that proxemics is the study of space utilization, or distance between an individual in relation to relevant objects or other individuals.

Figures 3.2.2.1a and 3.2.2.1b feature two parts of the same room. Figure 3.2.2.1a shows the positioning of the television set in relation to the couch, while figure 3.2.2.1b shows the couch in relation to subject 1. Subject 1 is positioned in close proximity to a second individual we will call “Adam”, while the television set was further away. This indicates that subject 1 is positioned to interact with Adam while also watching the television news broadcast. A coffee table in figure 3.2.2.1b is positioned so subject 1 can intermittently drink from a cup and eat her dinner on her lap.

Figure 3.2.2.2 shows that subject 2 has located herself within close proximity of the television set, the purpose of which she said was “to see the subtitles more clearly”. In between subject 2 and the television is her laptop computer, positioned for ease of use during the news broadcast.

Figures 3.2.2.3a and 3.2.2.3b feature two parts of an elongated room which includes a kitchenette on the left, and living room on the right. Figure 3.2.2.3a shows subject 3 positioned at the kitchenette bench. The bench was located in the kitchenette which was in distant proximity of the television set, in the living room. In figure 3.2.2.3b, her position on the couch is significantly closer to the television set.

Figure 3.2.2.4a and 3.2.2.4b show the proximity of the television set to the couch, immediately prior to and during the period when subject 4 watched the television news broadcast. In the foreground of figure 3.2.2.4a the corner of the dining table and a chair can also be seen. At the time of the videotape recording, a second individual was located at the table, reading a newspaper; and this was explained to be a common occurrence when subject 4 was watching the news. Note that in 3.2.2.4b, a mobile phone is in close proximity to subject 4, enabling her to check and send text messages as a secondary action to watching the news.

3.2.3 Posture

According to Norris, the two important aspects to posture are firstly, the form of the body position, and secondly, the postural direction in relation to others (2004, p. 24).

In figure 3.2.3.1, subject 1 has generally positioned her body facing towards the television set. However, she has crossed her legs towards the right, angling

herself slightly towards Adam who is located in the couch adjacent to her (to the left of this image).

In figure 3.2.3.2, subject 2 has directed her posture towards the laptop which she has located in front of her. This also positions her to face towards the television set, however, at a slight angle.

In figure 3.2.3.3a, subject 3 is seen positioned in one of three postural shifts demonstrated during the data-gathering period. While located in the living room, she first sits against the arm of the couch, her body is facing with her legs crossed towards the television set where she sits relaxed with her head leaning on her right hand.

In figure 3.2.3.3b, she has placed a laptop computer onto the coffee table in front of her, and has moved into a central position on the couch with a cushion behind herself to direct her posture towards the laptop, and at one point has brought her right hand to her face as in figure 3.2.3.3c. Further, in figure 3.2.3.3d we see that subject 3 has put on a vest and located herself at the kitchenette bench area, and while she is engaging in a secondary action of drying a pot, she is also directing her posture towards the television. In 3.2.3.3e she has also moved to the right hand side of the bench to position her body in a more direct line with the television set in between drying items, and once more she has brought her right hand to her face as she watches the television news broadcast.

In figure 3.2.3.4, subject 4 is in a sitting position with legs outstretched on a couch positioned perpendicular to the television set. Her angle is directed towards the television, and her left hand is holding a mobile phone as she types with her right.

3.2.4 Gesture

Kendon (1994) states that the communicative mode of gesture occurs when an individual undertakes to shape a symbolic form of action when communicating with another individual. Norris describes gesture as occurring within four defined actions: iconic, which features the mimicking of specific objects or events; metaphoric, which represents an abstract concept; deictic, which is used to indicate objects or people through pointing; and beat gesture, which represents two-movement phases such as beating a drum in time to music (Norris, 2004, p. 29). This study refers to deictic gesture, and shelve investigation into further implications of gesture – such as a part of sign language - for subsequent research projects. Deictic gesture was recorded by one participant where a second individual was present, as outlined below.

In figure 3.2.4.1, as part of her typical television news watching experience, subject 1 said she regularly watched television broadcast news with a second Deaf individual, whom we have previously referred to as Adam. Throughout the recorded period, she directed deictic gestures towards Adam, such as waving her hand and pointing to attract his attention, then asking him to clarify information she did not understand about the news message, in NZSL. At one point, when he did not respond, this mode was accelerated to a higher level when subject 1 used her body posture to lean forward, gain closer proximity and attract Adam's attention away from the television and towards her.

3.2.5 Head movement

Head movement in interaction has a variety of functions. Conventional head movements are performed as non-verbal messages such as “yes” and “no”; whereas novel head movements include either a directional shift, or as head “beats” or tosses (Norris, 2004, p. 33). This research project has focused on head movement to identify a directional shift in attention to and from the television set.

Subject 1 used head movement throughout the data as her attention shifted between the television news broadcast and Adam, as seen in figure 3.2.5.1. During the head movements towards Adam, subject 1 engaged in bursts of conversation in sign language with him. These conversations were interpreted by the NZSL interpreter as subject 1 seeking and receiving clarification on information featured in the television news story. Moreover, while the content of the news broadcast is not a focus of this research, it was noted that head movement occurred within some news stories themselves. This formed a pattern of movement towards the television when an interviewee or graphic featured, and away from the television when general footage was seen.

In figure 3.2.5.2, subject 2 has engaged head movements between the television set and her laptop computer with high frequency throughout the recorded period. These occurred during each television news story, and within the directional shifts toward her laptop, she performed an action on the computer, such as opening up online news websites or scrolling through news stories as seen in the figure.

Subject 3's head movements did not show any prominence during the period when she was sitting on the couch watching the news. However, during activities, a pattern emerged whereby head movements indicated a directional shift to the activity. This was followed by short-term directional shifts away from the activity, towards the television set and back again.

Subject 4 featured occasional head movements, demonstrating a pattern of directional shifts between the television set and the mobile phone located beside her as she checked and responded to text messages. These appeared to bear limited relation to the television news broadcast.

3.2.6 Analysis

According to Norris (2004), communicative modes are intricately linked and it is necessary to separately measure these in heuristic units, before analyzing how these modes come together to produce meaning. In analyzing the data recorded, there are multi-modal patterns present during the interactions the participants demonstrated while watching a television news broadcast. This analysis will first give an overview of the importance the participants appear to place on the role of television news broadcast, then it will discuss and analyse the key findings.

The medium of the television news broadcast appeared to be a significant feature in the social interactions of all participants. The participants all commented that the prime time broadcast was recognized as an important part of a daily structure;

this was justified as being the main news bulletin of the day, and unlike online news, it featured subtitled captions. In the case of Subject 2, the subtitles also influenced the way she located herself within close proximity to the television set in order to see them more clearly.

Furthermore, the television set appeared to be a social tool of significance within each home setting; it was primarily positioned within the main living area of each home, and secondarily, this position facilitated the view of other important locations within the environment, such as the front hall or front doorway. This most likely reflects the participants' desire to be aware of movement by individuals into and out of the home when the sound of a door knock or bell could not be detected. Moreover, where the home design allowed, the television set was located so ancillary activities could be performed in and around periods of interest, such as drying the dishes, working on a laptop computer, cooking or eating dinner. And, in the case of subjects 2, 3 and 4, moveable social tools such as laptops and a mobile phone were positioned within easy reach of the preferred television viewing locations.

There is some evidence that the television set provided an element of relaxation for the participant viewers. This was demonstrated by subject 1 who drank and ate a meal while watching the television, subject 3 who showed a relaxed posture as she leaned against a cushion or rested her head on her hand, and subject 4 when she put her feet up on the couch in a position which appeared to be comfortable to her and at one point drank from a glass of wine. Subjects 2 and 3 also had legs crossed in a position generally regarded as informal or relaxed while watching the television news broadcast.

Two of the participants used people or objects to mediate the news message, and these occurrences follow. Subject 1 introduced a second individual (Adam), who sat in between her and the television set, and she interacted with him to seek clarification on the details of some of the news stories she didn't understand. On further investigation by the researcher, subject 1 said that Russian (and Russian sign language) was her native language, therefore she felt a frequent need to clarify local meanings and contexts. Although not the subject of this research, Adam said that he felt a responsibility to subject 1 – so much so that he would often read online news prior to the television news broadcast in order to mediate the stories more effectively for her. Due to the fact that Adam is also Deaf, subject 1 used deictic gestures to gain his attention as he mediated between her questions and the news message. These gestures combined with a forward-leaning body posture to elevate the movement to a higher level of action when Adam's attention became inextricably directed towards the television set. Furthermore, subject 1 self-mediated the content of the news stories, and through directional head turns, demonstrated she had a greater interest in textual graphics and interviews than general footage featured in the item. The latter is likely to be because it would be possible for her to lip read the interviewee's words.

The second occurrence of mediation is demonstrated in 3.2.6.1a and 3.2.6.1b as subject 2 interacted with a laptop computer to browse online textual versions of the news stories she was concurrently watching. However, rather than viewing the broadcaster's same story on a different platform, she has triangulated the information between alternative news organisations' websites as is shown in figure 3.2.6.1a and more clearly seen in the close-up figure 3.2.6.1b as she has utilized www.stuff.co.nz

to mediate a TVNZ news story covering the Labour Party's position on tax changes proposed by the New Zealand government.

3.2.7 General

The level of interest in the television news broadcast declined over the hour that the participants were recorded; no participants watched during the commercial breaks – instead engaging in unrelated home-based activities; none watched the subtitled weather section which appeared half way through the bulletin; and none watched beyond the start of the sports news section.

Conclusion

4.1 Introduction

This chapter presents a summary of the key findings of the research undertaken. It is followed by a consideration of the pedagogical implications for educators of the Deaf. Furthermore, there are recommendations proposed and a discussion of implications for further research. Following on, the limitations of the area of study are assessed and discussed, and the chapter concludes with a brief summary of the conclusions herein.

4.2 Summary of key findings

The primary objective of this study was to investigate how a Deaf person positions themselves in the home environment in relation to a television news broadcast. This was proposed as stage one of a greater body of research to be undertaken regarding Deaf and the mass media. The study was carried out among four Deaf participants located in their homes in Auckland, New Zealand. The instrument by which data have been collected is observational videotaped ethnography, supported by field notes, recorded during a period of one hour, in which time each participant watched as a television news bulletin was broadcast. Participants were able to move about freely in order to reflect the natural behaviours they typically exhibit while

watching the news. Representative samples of up to five minutes of data were selected and a qualitative MM interaction methodology was used to analyse the five communicative modes exhibited by the participants, namely layout, proxemics, posture, gesture and head movement. These modes were analysed thematically then collectively in order to gain maximum understanding from the data presented.

Key findings support the notion that, as a social tool, the television set has a significant role within the everyday life of a Deaf person. It was noted that primetime television broadcast news bulletins were regarded by all participants as an important part of a daily structure. Reasons for this included the fact that the news content was generally regarded as a valuable resource of news information. The Deaf participants arranged the placement of furniture and electronic equipment within the layout of the room for ease of visibility, and preferred television viewing locations were influenced by factors such as line-of-sight to the front door or hallway, and so that ancillary activities could easily be performed in and around periods of lesser interest in the broadcast. Furthermore, moveable social tools such as electronic equipment for example laptop computers and mobile telephones were positioned within easy reach of the viewing location to avoid movement and interruptions in the viewing experience, and allowing participants to multi-task. The television provided an element of relaxation in the home setting, as participants drank or ate while watching the television, and adopted relaxed posture characteristics such as stretching out to full length on the couch, crossing the legs and the resting the head.

The presence of captioned subtitles was a factor which resulted in a preference for television news rather than online news as this does not feature subtitles, and one

participant located herself close to the television set principally so the subtitles could be easily read. However, even though subtitles were present throughout the news content, there were outward indications that two of the participants had a desire for more information in order to understand what the news stories meant, so much so that they had designed ways in which to mediate the news messages. This was demonstrated by one participant, who sought mediation from a second individual who had briefed himself on the news stories of the day through an online news services prior to the broadcast of the television news bulletin. In this way, he mediated the news story and was frequently referred to by the participant for clarity and information. Another participant mediated the television news broadcast with an online news source from a different media organisation throughout the viewing experience. These occurrences clearly demonstrate that there are significant gaps in understanding of television news by Deaf individuals.

The general level of interest in the news declined throughout the news hour, and this likely reflects the narrative structure of the bulletin combined with one's attention level at the end of a working day, where weather reports and sports news were abandoned for a soap opera on the other channel, or for household activities, such as cooking dinner. However, within the television news stories themselves, attention variation was identified by one participant who showed greater interest in textual graphics and interviews than in general video footage featured in the item. This is likely to be another example of mediation, where an interviewee may be regarded as a source for lip-reading, reinforcing the notion that a Deaf person experiences gaps in the understanding of a television news broadcast. This

phenomenon is consistent with a separate hypothesis of the research which lends itself to investigation at a later date.

4.3 Pedagogical implications

The results of the present study confirm that, due to the potential for gaps in understanding, the use of videotaped content is likely to be an unreliable social tool in the education of Deaf students. This, however, does not necessarily mean that videos as a teaching tool for the deaf should be discarded altogether, but rather that videos should be made more carefully so that they cater to the specific needs of those with hearing disabilities. Furthermore, enhancements such as subtitling will only provide value where a student has a sufficient level of literacy. International statistics suggest that most Deaf students have a particularly low level of literacy, likely that of an eight year old, and there is no reason to suggest that this would be any different in New Zealand. Academic research has been undertaken into the benefits of presenting sign language on screen in an educational setting; however this should be weighed up against the potential interest this would draw away from the visual message intended.

4.4 Implications for further research

The analyses of the results shed light on investigation into whether television broadcast news has a significant role in the daily life of a Deaf person. Furthermore,

it opens the door to further directions of research into the Deaf and auditory-visual news texts. There is no clear evidence which measures the quality of the Deaf person's reception of news messages nor exposes the gaps in information which we now know exist. Furthermore, the journalists who produce the news are inherently hearing folk who are predisposed towards creating an auditory-visual news message and a Deaf person will not be aware that they have missed auditory information unless there is some visual evidence present. Therefore, a broader measure of research into the receptive communication of a Deaf person is proposed and three separate directions are recommended: Firstly, further analysis of the levels of attention awareness of a Deaf person's use of the communicative modes is proposed, whereby "a participant in interaction can engage in several simultaneous higher-level actions" each of which is analysed in levels of attention and intensity (Norris, 2004, p. 95). Secondly, analysis of the auditory-visual texts which feature in the news stories is proposed, and although this area has been addressed within academic research, it should be considered in light of the highly visual receptive nature of the Deaf individual and the widely acknowledged low levels of literacy among many therein. Thirdly, an investigation is proposed into whether Deaf culture has an influence on a Deaf person's ability to participate in the broadcasting public sphere, and how the television broadcast news message can provide enhancement of this. These areas of inquiry will enhance our understanding of Deaf and the mass media by providing qualitative measures of the salient contributing factors.

4.5 Limitations

The obvious limitation of this research has been the Deaf characteristics of the participants. This was intentional as it has provided a clearer result than the participation by hearing impaired individuals whose degrees of deafness would have likely introduced ambiguity into the study. However, it is acknowledged that high powered hearing aids and cochlear implants are creating opportunities in the mainstream, and therefore are likely to have an impact on the number of individuals who identify with Deaf culture, there will remain members of this group for whom such medical interventions will have no impact on the disability. Therefore, there is justification for the direction undertaken in this study.

Other characteristics of the participants such as gender, and social status also may have influenced the outcome. For example, all participants had access to electronic devices such as laptop computers and mobile telephones. However, it is the generally my considered belief that Deaf adults tend to demonstrate a disposition towards the use of such technologies, most likely enabling a greater ease of communication via mobile phone text messaging, email, skype and social networks.

4.6 Conclusion

The primary purpose of the present study was to examine how Deaf adults locate themselves in relation to the television broadcast news in the home setting. This is the first step toward a larger study into the interactions between the Deaf and the mass media. Four Deaf adults provided data which were recorded through observational videotaped ethnography supported by field notes. The results from this investigation have informed recommendations which have pedagogical implications, and they provide directions for further research into this field of study including the areas of receptive communication, analysis of the auditory-visual news text and Deaf cultural influences on the public broadcasting sphere.

Furthermore, the role of the television broadcast news medium comes into question, as public broadcaster, TVNZ is not fulfilling its obligations to uphold the principles of identity, culture and access to news content as required by the Broadcasting Act, 1989. It is proposed that, along with the increased number and variety of electronic news sources, online news will become a Deaf person's preferred option over traditional news broadcasting. Furthermore, it is proposed that these directions motivate further inquiry into the conscious and subconscious behaviours and intentions of the Deaf person while interacting with the television broadcast news medium. This study has identified a number of factors which set a framework for such inquiry and the MM method of research employed in the present study has been valuable in validating the observational research process undertaken.

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