Sales assistants serving customers with Traumatic Brain Injury

Glenn Goldblum

Submitted in partial fulfillment of the requirements for the degree

DPhil Communication Pathology

Department of Communication Pathology
Faculty of Humanities

University of Pretoria

Pretoria

October 2005

ABSTRACT

Sales assistants serving customers with Traumatic Brain Injury

General lack of awareness regarding neurogenic communication disorders generally, and cognitive-communicative disorders following a traumatic brain injury (TBI) specifically has resulted in pervasive environmental and attitudinal barriers for these individuals. Paradigm shifts within the rehabilitation context have been highlighted which aim to remove barriers, provide social supports, and thereby enhance their participation in all aspects of life. While collaborative communication partner training programs have been advocated as a means to achieve this, a dearth of published programs is evident within the field of TBI, leading to the need for such programs to enhance the awareness and skill of the communication partner, and reduce barriers for the individual. Transformations are likewise apparent in the corporate context, where in spite of legislative changes encouraging diversity awareness programs for employees, few training programs exist worldwide, and in South Africa particularly, which remove barriers between employees and customers with a communication disability, and a TBI specifically.

The current research targeted the retail supermarket environment as a context in which a significant number of everyday communicative exchanges take place. The study investigated the ability of a group of sales assistants to identify barriers to, and facilitators of interaction involving customers with a cognitive-communication disorder, using a control group design. This was achieved by the development and administration of 2 questionnaires on 2 different occasions to determine the confidence and skill with which they identified barriers and facilitators during videotaped sales interactions. A once-off training session was developed and conducted with the experimental group participants, in order to increase their confidence and skill in identifying barriers and facilitators of such interactions. The training session employed a number of customized components considered to be powerful contributors to the positive outcome of the study. These included: extensive use of customized video material professionally produced and comprising real interactions involving individuals with a TBI as "customers" in various stores of the participating national supermarket chain during operating hours. Collaboration with an individual with a TBI in the training, together with use of adult learning and diversity awareness principles were considered effective in shifting previous attitudes and fostering new learning.

Inter-and-intra-group results on the confidence and skill constructs of the pre-and-post questionnaires were examined. All pointed consistently to the impact of the training session on the improvement demonstrated in the experimental group as compared to the control group on the post-questionnaires as compared with the pre-questionnaires. In addition all subjective training session evaluations by the experimental group participants were consistently highly rated, reflecting the active participation observed during training.

The need for companies to expand their concept of customer service to include an acknowledgement of the customer with a disability is emphasized. Training programs empowering their employees to interact with greater awareness and confidence with customers with a TBI specifically will potentially facilitate deeper participation for both. The current research lays the groundwork for more in-depth research that can be generalized beyond this specific population of individuals with a communication disorder.

Key terms: Traumatic brain injury; customer with a cognitive-communication disorder; sales assistants; communication partner training program; retail environment; ICF (WHO, 2001); barriers; facilitators; confidence; skill; South Africa

OPSOMMING

Verkoopsassistente wat deel met kliënte met Traumatiese Hoofbeserings

Algemene gebrek aan bewustheid aangaande neurogeniese kommunikasiegestremdhede in die algemeen, en kognitief-kommunikatiewe gestremdhede na ‘n traumatiese hoofbesering (THB) in die besonder, het omvattende omgewings- en gesindheidsprobleme vir hierdie individue veroorsaak. Paradigmaskuiwe binne die rehabilitasie konteks het ten doel om hindernisse te verwyder en sosiale ondersteuning te bied, ten einde hul deelname aan alle aspekte van die lewe te verhoog. Terwyl samewerkende kommunikatiewe vennootskappe bepleit word as ‘n manier om dit te bereik, is daar ‘n skaarste aan gepubliseerde programme in die THB veld. Sulke programme is dus noodsaaklik om die bewustheid en vaardigheid van die kommunikasie vennoot te versterk en om belemmerings vir die individu te verwyder. Transformasie is ook sigbaar in die korporatiewe konteks waar, ten spyte van wetlike veranderings wat diversiteitsbewustheid programme vir werknemers aanmoedig, daar wêreldwyd, en veral in Suid-Afrika, min opleidingsprogramme bestaan om belemmerings tussen werknemers en kliënte met ‘n kommunikasie gestremdheid, spesifiek THB, te verwyder.

Hierdie navorsing het die kleinhandel supermarkomgewing geteiken as ‘n konteks waarin daar daagliks betekenisvolle kommunikasie plaasvind. Die vermoë van ‘n groep verkoopsassistente om belemmerings vir, en fasiliteerders van interaksie met kliënte met ‘n kognitief-kommunikatiewe gestremdheid te identifiseer, is ondersoek deur gebruik van ‘n kontrole groep. Dit is gedoen deur die ontwikkeling en toepassing van 2 vraelyste by 2 verskillende geleenthede, om die selfvertroue en vaardigheid vas te stel waarmee hul belemmerings en fasiliteerders geïdentifiseer het gedurende video-opnames van verkoopsinteraksies. ‘n Eenmalige opleidingssessie is ontwikkel en met die eksperimentele groep uitgevoer om hul selfvertroue en vaardigheid om belemmerings en fasiliteerders te identifiseer, te verhoog. Die opleidingssessie het ‘n aantal doelgemaakte komponente gebruik wat beskou is as sterk bydraers tot die positiewe uitkoms van hierdie studie. Dit het die omvangryke gebruik van doelgemaakte, professioneel vervaardigde videomateriaal ingesluit. Dit het bestaan uit werklike interaksies tussen “kliënte” met THB in verskillende winkels van die deelnemende nasionale supermarkgroep gedurende besigheidsure. Samewerking met ‘n individu met THB gedurende opleiding, tesame met gebruik van volwasse opleiding en diversiteitsbewustheid beginsels is as effektief beskou in die verandering van vorige gesindhede, en om nuwe kennis aan te moedig.

Inter- en intragroep resultate aangaande die vertroue en vaardigheid van pre-en postvraelyste is ondersoek. Alles het konsekwent gewys op die impak van die opleidingssessie op die verbetering van die eksperimentele groep in vergelyking met die kontrole groep op die postvraelyste in vergelyking met die prevraelyste. Daarbenewens is al die subjektiewe opleidingssessies konsekwent hoër aangeslaan en dit reflekteer die aktiewe deelname wat gedurende opleiding waargeneem is.

Dit is nodig dat maatsappye hul denkbeeld van kliëntediens uitbrei om kliënte met ‘n gestremdheid in ag te neem. Opleidingsprogramme wat werknemers bemagtig om met groter bewustheid en selfvertroue spesifiek met kliënte met THB om te gaan, sal potensieel beter deelname vir albei fasiliteer. Die huidige navorsing lê die grondslag vir meer in-diepte navorsing wat wyer strek as slegs hierdie spesifieke populasie van individue met ‘n kommunikasie probleem.

Kern woorde: Traumatiese hoofbesering; kliënt met ‘n kognitief-kommunikatiewe gestremdheid; verkoopsassistente; kommunikasie vennootskap opleidingsprogam; kleinhandelsomgewing; ICF (WGO, 2001); belemmerings; fasiliteerders; selfvertroue; vaardigheid; Suid-Afrika

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDIXES

CHAPTER 1

ORIENTATION

1.1 Introduction

This chapter provides an orientation to the study. It encompasses background information, the purpose of the research, an outline of each of the chapters in the research, definitions of terms used within the context of the research, and finally an explanation of the abbreviations used.

1.2 Background

A general lack of awareness is evident regarding traumatic brain injury (TBI) and its impact, resulting in pervasive environmental, attitudinal and informational barriers marginalizing the individual. Paradigm shifts within the rehabilitation field (with specific reference to individuals with neurogenic-based communication disorders), have been advocated by various sources including the participation-based International Classification of Functioning, Disability and Health framework (ICF) (developed by the World Health Organization (WHO) in 2001); together with consumer-driven models of intervention, including the social model of disability (French, 1994; Jordan & Kaiser, 1996; Oliver, 1996); the Life Participation Approach to Aphasia Project Group (LPAA, Chapey, Duchan, Elman, Garcia, Kagan, Lyon & Simmons-Mackie, 2000); and the supported participation model (Ylvisaker, Jacobs & Feeney, 2003). Their combined focus is to progress beyond creating functional and relevant outcomes for the individual with communication disorders, in order to create environmentally-and-communicatively-friendly places, with fewer barriers and more facilitators. One of the ways to achieve this aim is by means of collaborative interventions with communication partner training programs, thereby empowering both the individual with a communication disorder and their communication partner. Training which aims to form partnerships between the individual with a disability and their community, enhancing both the awareness and the skill of the communication partner and thereby building community capacity in a sustainable way, has likewise been strongly advocated by Alant (2005a, 2005b), and Alant and Lloyd (2005). Examination of the literature specifically in relation to individuals with a TBI, reveals a dearth of published research evaluating the results of training the communication partners of individuals with a TBI (Togher, McDonald, Code & Grant, 2004). The call has thus been made to train individuals across uninformed sectors of society in order to facilitate enhanced participation for the individual with a TBI.

As in the rehabilitation context, so too are transformations apparent within the corporate context not only internationally, but also in South Africa specifically. These include legislative changes addressing some of the inequalities within the workplace, particularly in relation to individuals with a disability. Corporate diversity awareness programs worldwide are increasingly common, with particular focus being evident on awareness related to race and gender issues, as well as on reduction of environmental barriers for individuals with disability. In spite of this trend, very few South African companies have reportedly addressed the issues of integrating individuals with a disability into the workplace, as well as of transforming company values in order to modify attitudes and remove barriers for both employees, and customers with disability (Silver & Koopman, 2000). Furthermore, in spite of the focus of contemporary business on the importance of customer care and service, only minimal reference, if any, is made to the customer with a disability. Various corporate consultants in South Africa have advocated the need to re-examine the corporate environment in relation to customer service, and to focus on a relationship economy, where a facilitative, barrier free and human-oriented environment is the focus (Bramley, 2003a, 2003b; Coats, 2003a, 2003b, 2003c, 2003d; Codrington, 2003a, 2003b, 2003c, 2003d, 2004). Philosophically this call relates to the South African concept and spirit of an Ubuntu management approach (Bhengu, 1996; Mbigi & Maree, 1995), emphasizing working together in a respectful and dignified way.

While the transformations within both the rehabilitation and corporate environments reflect efforts to reduce barriers for individuals with disability, many gaps remain within these two diverse contexts, specifically in relation to the ongoing need for the dissolution of barriers regarding individuals with a cognitive-communication disorder following a TBI. The current study, which develops and refines a communication partner training session aimed at customers with a TBI and sales assistants in a supermarket, evolved from the combination of these two contexts. The aim of this study is specifically to investigate the ability of sales assistants to identify barriers to, and facilitators of interaction with customers with a cognitive-communication disorder following a TBI, and whether training impacts on this ability.

1.3 Chapter outlines

The research is presented in seven chapters. In chapter 1, the basic orientation and motivation for the research, as well as this outline are provided. Definitions of terms used within the context of the research, as well as an explanation of abbreviations, are likewise included.

Chapter 2 provides an overview of the contemporary intervention issues specifically regarding the individual with a TBI, by examining the conceptual frameworks of the ICF (WHO, 2001) and the social disability model, which advocate participation and empowerment, together with a reduction of environmental and attitudinal barriers for these individuals. An overview of TBI is given, together with the potential range of cognitive–communication impairments that may result. Society's ignorance regarding the impact of these difficulties is highlighted, resulting in many of the obstacles that further marginalize these individuals. The literature reveals a paucity of research aiming to train communication partners in the effort to create communicatively friendly and accessible environments, which further emphasize the need for research aiming to lessen barriers, and empower communication partners, thereby potentially enhancing the participation of the individual with a TBI.

Chapter 3 examines the legislative changes worldwide, and in South Africa specifically, and the extent to which they have influenced contemporary practice in the day to day workplace environment. The dearth of training programs in relation to serving the customer with a disability is emphasized, as is the concomitant need for training programs enabling customers with a TBI specifically to function more fully and independently as a consumer. The chapter concludes with a visual representation of the theoretical rationale for the study, emerging from the gaps identified in both the rehabilitation and corporate contexts in relation to the individual with a TBI.

The methodology is set out in chapter 4, and includes a description of the aims, sub-aims and research design. The preparatory phases establishing the foundation of the main study are presented, followed by the pre-experimental phase in which the video scenarios and pre-and-post questionnaires 1 and 2 are developed and refined. This is followed by a presentation and evaluation of the pilot study, and thereafter the main study. A description of the training context, participants, equipment, measuring instruments, the training session itself, and data collection is provided, as well as of the data analysis and statistical procedures.

Chapter 5 provides an overview of the results obtained. The outcome of measures specifically examined within the experimental group before and after their once-off training session is presented. The chapter then focuses on sub-aim 3 of the research – to examine and compare the similarities and differences between the experimental and control groups' performance obtained by means of the confidence and skill constructs of pre-and-post questionnaires 1 and 2.

Chapter 6 offers a critical discussion of the results in relation to the similarities and differences between the experimental and control groups' performance on the confidence and skill constructs of pre-and-post questionnaires 1 and 2. Factors contributing towards these outcomes are postulated. Finally, the results are considered more broadly in relation to the relevant literature that formed the conceptual foundation for the research.

In chapter 7, an overview is provided of the conceptual rationale for the research, together with a summary of the results in relation to the development, refining and administration of 2 questionnaires and a training session aimed at increasing the confidence and skill of a group of sales assistants in identifying the barriers to, and facilitators of interactions involving customers with a cognitive-communication disorder following a TBI. The chapter concludes with a critical evaluation of the study, and makes recommendations for future research.

1.4 Definition of terms

The following frequently used terms need some clarification within the context of the study:

Facilitators - derived from the French "faciliter," meaning "to make an action or process easier" (Pearsall, 1998, p.656). Facilitators are defined in the ICF (WHO, 2001, p.214) as "factors in a person's environment that, through their absence or presence, improve functioning and reduce disability." The list of possible facilitators includes an accessible environment, positive attitudes of people towards disability, and the absence of stigma and negative attitudes.

Barriers - derived from the old French "barriere," denoting a fortification defending an entrance. Barrier refers to "an obstacle preventing movement or access, or communication or progress" (Pearsall, 1998, p.141). Barriers are defined in the ICF (WHO, 2001, p.214) as "factors in a person's environment that, through their absence or presence, limit functioning and create disability." The list of possible barriers includes an inaccessible physical environment and negative, stigmatizing attitudes of people towards disability.

Confidence – derived from the Latin "confidential," meaning having full trust. This word refers to "a feeling of self assurance and certainty arising from one's appreciation of one's own abilities or qualities" (Pearsall, 1998, p.385). Confidence comprises one of the internal mental functions identified by the ICF (WHO, 2001) that enable an individual to react in a particular way, and that distinguish one individual from another. It is defined by the ICF (WHO, 2001) as comprising

"mental functions that produce a personal disposition that is self-assured, bold and assertive, as contrasted to being timid, insecure and self-effacing" (WHO, 2001, p.51). In the context of the current study, confidence refers to the manner in which the sales assistant serves and interacts with a customer with a TBI (defined in Table 4.8).

Skills - derived from late old English "scele," meaning "knowledge, expertise and the ability to do something well" as a result of "knowledge, ability or training" (Pearsall, 1998, p.1745). Skills comprise a bridging construct between the internal and external factors, referring to the practical skills in performing a particular task which, while they require a knowledge base, are easily learnt through demonstration and supervised practices (Bornman, 2001). Silberman (1990) has stressed how confidence grows as individuals master skills of increasing complexity. In the context of the current study, skill denotes the manner in which the sales assistant observes and responds to this kind of customer - including feelings regarding the customer's competence.

In the current research, confidence and skill are conceived as positive constructs, so that the presence of confidence and skill are regarded as potential facilitators for an individual, while the absence or diminution of these constructs are regarded as potential barriers for an individual.

1.5 Abbreviations

CAAC - Centre for Alternative and Augmentative Communication, University of Pretoria
CCA - Customer Care Assistant
CSM - Customer Service Manager
GM - General Manager
SLP - Speech Language Pathology/Pathologist
TBI - Traumatic Brain Injury

1.6 Summary

The current chapter provided the rationale for the research by describing the background information that led to its development, as well as offering a description of the purpose of the study. It included an outline of the different chapters in which the aims of the research are described and realized. The chapter concludes with a definition of terms used within the context of the research, together with an explanation of the abbreviations used.

CHAPTER 2

SOME MAJOR CONTEMPORARY REHABILITATION ISSUES REGARDING THE INDIVIDUAL WITH A TRAUMATIC BRAIN INJURY

> Rehabilitation …is more than the mechanical application of technical procedures. In our judgement, it involves a commitment to enter the lives of people with disability, to create collaborative relationships with them and the everyday people in their lives, and to support them in part by serving as an ongoing source of optimism, creativity, flexibility, and enthusiasm in the face of the obstacles that often seem overwhelming.
>
> (Ylvisaker & Feeney, 1998a, Preface, p. xi)

2.1 Introduction

The nature of contemporary intervention with adults with acquired communication disorders is shaped by, and reflects the influence of past and present social and health care models. The current research is aligned with the contemporary concept of society's obligation to individuals with disability worldwide to lessen their marginalization, reduce environmental and attitudinal obstacles, and enhance their participation in all aspects of life within their own capabilities (Alant, 2005b; Alant & Lloyd, 2005; Fox and Sohlberg, 2000; French, 1994; ICF (WHO, 2001); Kagan & LeBlanc, 2002; LPAA Project Group, Chapey et al., 2000; Pound, Parr, Lindsay & Woolf, 2001a, 2001b, 2001c; Sarno, 1986, 2001, 2004; Simmons-Mackie, 1998; Simmons-Mackie, Kagan, Christie, Huijbregts, McEwen & Willems (in press); Threats, 2002, 2003, 2004; Threats & Worrall, 2004).

This chapter examines the ability of the individual with a TBI to participate in society – in relation to the participation-based ICF model of the WHO (WHO, 2001). This conceptual framework advocates the removal of societal barriers, together with the provision of social supports and facilitators, thereby encouraging individuals with disabilities to integrate themselves and be more visible in society. In addition, an overview will be provided of the social and participation-based approaches (Alant, 2005b; Alant & Lloyd, 2005; French, 1994; Jordan, 1998; Jordan & Kaiser, 1996; Kagan, 1995; Kagan, Black, Felson Duchan, Simmons-Mackie & Square, 2001; Kagan & Gailey,1993; Kagan & LeBlanc, 2002; LPAA Project Group, Chapey et al., 2000; Lyon, 1992; Parr, Byng, & Gilpin (with Ireland), 1997; Pound et al., 2001a, 2001b, 2001c, Simmons-Mackie et al., (in press); Sarno, 2004), which aim to remove the numerous

social environmental and attitudinal barriers that still exist for many individuals with disabilities, and in particular those with invisible communication disabilities, who are frequently stigmatized, facing a range of barriers including hostile, uncomfortable and even fearful reactions by society (Fine & Asch, 1988; Goffman, 1963a, 1963b; Lubinski, 1981, 2001; Sarno, 2001, 2004).

2.2 Traumatic brain injury (TBI) and cognitive-communication problems

TBI results from an external trauma to the brain (rather than disease) producing altered states of consciousness in the acute stage, and resulting in a range of diverse chronic cognitive-communication, physical and psychosocial problems (Togher, McDonald & Code, 1999b, 1999c; Togher et al., 2004; Ylvisaker & Feeney, 1996). Blunt head injuries are reportedly the most common type of head injury, caused by rapid acceleration and deceleration of the head occurring most commonly in a motor vehicle accident. The orbital and lateral surfaces of the frontal and temporal lobes are the most vulnerable in these injuries (Sohlberg & Mateer, 1989, 2001c; Togher et al., 1999c; Ylvisaker & Feeney, 1996; 2001) resulting in potentially debilitating problems with the regulation of cognitive, behavioural and social-communication functions which fall under the "umbrella term" of executive system impairments. (Ylvisaker & DeBonis, 2000; Ylvisaker & Feeney, 1996; Ylvisaker, Szekeres & Feeney, 2001a). The outcome may be a potentially varying range and degree of cognitive impairments including problems with attention; memory; new learning; impulsivity; self awareness; judgement; planning; problem solving; decision-making and self regulation of mood and emotional reactions (Sherer, Bergloff, Boake, High, & Levin, 1998; Sohlberg & Mateer, 1989, 2001c; Togher et al., 1999c; Ylvisaker & DeBonis, 2000; Ylvisaker & Feeney, 1996; Ylvisaker, Szekeres & Feeney, 2001a).

In the USA and Australia, the general incidence has been estimated at approximately 200-300 per 100 000 people per annum sustaining a severe brain injury, with the highest incidence occurring in the 15-24 year age group (McDonald, Togher & Code, 1999; Togher et al., 2004). Togher et al. (2004) note how these figures are on the increase, and with it a concomitant increase in social cost and burden. In South Africa, Nell and Brown (1990) reported the incidence of TBI being 316/100 000 (higher than the statistics more recently reported in the USA and Australia), while the Brain Injury Group (BIG) (retrieved May 15, 2004 from http://www.headway-gauteng.org/brain-injury/statistics.htm) reported approximately 80 000 new cases of TBI annually. D.A. Howitson (Chairperson, National Council for Persons with Disabilities) has noted that the South African Census 2001 reveals that there are 2 233 982 persons with disability in South Africa (5.07% of the population), with no specific information

being identified about individuals with a TBI (personal communication, May 3, 2004). Disabled People South Africa (DPSA) (2000) notes a "serious lack" of reliable information regarding the nature and prevalence of disability in South Africa for a number of reasons including the stigma attached to disability, as well as differing definitions of disability (retrieved May 2, 2004 from http://www.dpsa.org.za/documentspocketguide.htm).

2.3 Cognitive-communication problems following TBI

The American Speech-Language-Hearing Association (ASHA) (1988) defined the communication problem following TBI as a cognitive-communication disorder. In a recently updated position statement ASHA (in press) has stated that:

> Cognitive-communication disorders encompass difficulty with any aspect of communication that is affected by disruption of cognition. Communication includes listening, speaking, gesturing, reading, and writing in all domains of language (phonologic, morphologic, syntactic, semantic, and pragmatic). Cognition includes cognitive processes and systems (e.g. attention, memory, organization, executive functions). Areas of function affected by cognitive impairments include behavioural self-regulation, social interaction, activities of daily living, learning and academic performance, and vocational performance.

The potentially widespread impact of this possible range of cognitively-based communication impairments has been extensively described and highlighted in the literature to include deficits that impact on the individual's academic and work-related performance, social participation, and ability to resume their pre-traumatic roles in society (Coelho, 1999; Holland, 1982; Isaki & Turkstra, 2000; Larkins, Worrall & Hickson, 2004; Mentis & Prutting, 1987; Milton, Prutting & Binder, 1984; Penn, 2000; Penn & Cleary, 1988; Penn & Jones, 2000; Sherer et al., 1998; Sohlberg & Mateer, 2001a; Togher, 2001; Togher et al., 1999b; Watt & Penn, 2000; Watt, Penn & Jones, 1996; Ylvisaker & DeBonis, 2000; Ylvisaker et al., 2001a). Larkins et al. (2004) have further emphasized the impact of the cognitive changes on the individual's communication interaction as not only creating a negative impression on friends or employers, but additionally impacting on their level of insight, as well as their adherence to acceptable social customs.

Penn & Cleary (1988, p.3) consider the commonly-used adjectives to describe the characteristics of the expressive language of the individual with a TBI as including "confabulatory, tangential, irrelevant, non-specific, vague, digressive, fragmented and incoherent." Penn and Jones (2000) noted that the following communication difficulties that have been found to interfere with successful return to work include "oral motor abnormalities, high level receptive difficulties,

expressive difficulties, difficulties in reading and comprehension and memory tasks, and slowed speed of verbal reasoning" (p.111).

Togher (1997); Togher and Hand (1999); Togher et al. (2004); and Togher, Hand and Code (1996, 1997a, 1997b, 1999a) have made more in-depth and complex examinations of the interpersonal functions of language in interactions between individuals with a TBI and various communication partners, across status and social distance, using a sociolinguistic framework, Systemic Functional Linguistics (Halliday, 1994), as well as a macrolinguistic generic structure potential (GSP) analysis (Ventola, 1979). These communication partners included family members, the police, and people working for the bus timetable information service. Their overall findings reveal how people with TBI were disadvantaged in their interactions with a number of communication partners, with reduced opportunity to provide information, and being less likely to have their contributions followed up by supportive comments. They were also more likely to be questioned regarding the accuracy of their contributions, and more likely to be asked repeatedly whether they had understood what had just been said. Togher and Hand (1999) noted how individuals with a TBI communicated more competently when in an information-giving role than in the less powerful information-requesting role. The conversation partner, on the other hand, was found, for example to change their communicative behaviour when speaking to an individual with a TBI (possibly compensating for their perceived deficits by, for example clarifying with the individual with a TBI whether they understood the intended message) (Togher et al., 1996), and also tended to use disempowering strategies for the individual with a TBI (Togher et al., 1997a). The implications drawn out by Togher and Hand (1999) included empowering individuals with a TBI by training them using different scripts and cues to "cognitively reorder that which is suggested to be deficient in TBI discourse" (p. 721), and in so doing, to be able to better anticipate and manage different communicative styles of interaction. Scripting as a form of executive system support for the individual with a TBI, has likewise also been widely advocated by Ylvisaker and Feeney, 1998f; Ylvisaker, et al., 2001b; and Ylvisaker, Wedel-Sellars & Edelman, 1998.

Armstrong & Togher (2001) have noted how service encounters account for a significant number of everyday communicative exchanges, and that focusing on these encounters "has the potential to have a significant impact on the communicative effectiveness of people with TBI" (p.6). Togher et al. (2004) advocate training larger numbers of individuals with a TBI, as well as service providers, to manage language choices and interactions across a number of different service encounters such as shopping, buying goods from a supermarket, banking, dealing with a

travel agent; and making enquiries in governmental departments such as the police. These researchers undertook a pilot 6 week training program with the New South Wales police, where the latter learned strategies to communicate more efficiently and satisfactorily with the caller with a TBI (making a telephonic police service enquiry), who likewise managed the communicative exchange more easily as a result. In so doing, more normal communication opportunities were created for people with a TBI.

Prutting (1982) has referred to appropriate communication as "social competence" since linguistic behaviour is the "vehicle by which one initiates, maintains and terminates relationships with others" (p.129). This understanding of competent communication being the product of the appropriate use of verbal behaviour together with nonverbal and paralinguistic behaviour within a context and a relational system (Prutting, 1982), underlies the reasoning offered by Prutting that one's social identity (Goffman, 1963b) is often affected by having a communication disorder. This thinking demonstrates how the above range of cognitive-communication difficulties in the individual with a TBI could potentially impact on the perceived appropriateness and efficiency of their communication interactions generally, and specifically on their ability to independently manage a service encounter such as shopping (Mazaux et al., 1997; Mentis & Prutting, 1987; Milton et al., 1984; Togher et al., 1997a, 1997b; 2004; Ylvisaker et al., 2001a). More specific examples of the manner in which these cognitive-communication problems could potentially impact on such an individual's being able to manage a retail interaction could include: difficulty reading labels and prices correctly; difficulty being understood by the sales assistant; working out how much money to give the cashier, and the change to expect when the transaction is completed; impulsive buying of unwanted items on the shopping list; asking relevant questions of the sales assistants regarding the required purchase; difficulty making decisions regarding items to buy if they don't have enough money; over-familiarity with the sales assistant or other customers and chatting lengthily to them (possibly unaware of other customers in line, and creating anxiety and discomfort in these communication partners); feeling pressured by shoppers in the line or an impatient sales assistant in a busy shop, which could spark an outburst; eating or using items before they have paid for them; walking out of the shop without remembering to pay for items; and inappropriate behaviour and inability to deal with delays such as waiting in a line, or even while being served. Larkins et al. (2004) asked 5 stakeholder groups (comprising individuals with TBI and their families, health professionals working with individuals with a TBI, third party payers funding TBI rehabilitation programs; employers providing work; and also Maori community members in New Zealand) to consider a list of communication activities seen as particularly important for the individual with a TBI.

Some of the highest rated items identified by these groups included the same kinds of the above-mentioned cognitive-communication skills that would also be pertinent within the retail environment, including: initiating conversations, social greetings and basic conversation; focusing in a noisy environment; negotiating assertively; speaking slowly and clearly; asking questions and getting basic help.

In addition to the range of cognitive-based communication disorders described above, individuals with a TBI may also have impairments in speech (dysarthria); motor planning (apraxia) and / or language (aphasia) (Sohlberg & Mateer, 1989) which intrude upon the overall ease and efficiency of communicative interactions. According to Beukelman & Yorkston (1991) (cited in McDonald et al., 1999) dysarthria following TBI is reportedly one of the most persistent communication impairments impacting significantly on the individual's functional independence, and has been reported to occur in from 8% to 100% of patients with a TBI. Aphasia has been reported to occur in from 2% (Heilman, Safran & Geschwind, 1971 cited in McDonald et al. (1999)) up to roughly 30% (Sarno,1980, 1988; Sarno, Buonaguro & Levita, 1987), with anomic aphasia reported as the most common aphasia type. Sarno, Buonaguro & Levita (1986, p.402) termed the aphasic-like symptoms "subclinical aphasia" in the less severely impaired individuals with a TBI. The discussion below highlights the controversy around this classification of the communicatiion deficits following a TBI as a purely linguistic impairment, rather than reflecting underlying cognitive deficits (Holland, 1982; McDonald et al., 1999; Milton et al., 1984; Sohlberg & Mateer, 1989, 2001a).

2.4 Differences between TBI and aphasia

While both acquired aphasia (following a stroke) and TBI potentially impact on the interactional style and conversational roles of the individual, an examination of the literature highlights numerous differences between the aphasic and TBI populations. Darley's original definition of aphasia (cited in Davis (2000)) has been re-defined by Davis as being "a selective impairment of the cognitive system specialized for comprehending and formulating language, leaving other cognitive capacities relatively intact" (p.16). With regard to the TBI population, Ylvisaker et al. (2001a) have emphasized the heterogeneity of this population in terms of pre-injury variability and variety of pathophysiologic mechanisms (related, for example to site of impact), so that "constellations of communication-related strengths and weaknesses potentially associated with the TBI are extremely varied, depending on the nature, location, and severity of the injury, as

well as the characteristics of the individual who is injured and post trauma supports" (p.752). Ylvisaker et al. (2001a) have further noted that:

> although symptoms of aphasia are often present early in recovery, and in some cases specific language impairment does persist, aphasia defined in terms of the classical syndromes is relatively uncommon after TBI. … generalized and persistent expressive and receptive language impairment is generally associated with widespread diffuse injury that also produces global cognitive deficits (p.754).

With specific reference to pragmatic competencies, Milton et al.(1984) noted that "communication may be disrupted in this population in ways which are qualitatively different from the stroke patient we label as aphasic" (p.114). Furthermore, in relation to Holland's (1977, p.173) observation that "aphasics probably communicate better than they talk," Milton et al. (1984, p.114) noted that "the reverse seems true for head injured individuals. This population appears to talk better than they can communicate." Holland (1982, p.345) emphasizes this difference most emphatically by stating that:

> if the language problems seen in closed head injured patients don't look like aphasia, sound like aphasia, act like aphasia, feel, smell or taste like aphasia, then they aren't aphasia. Further, they will not be terribly responsive to the traditional methods by which we have come to treat aphasia.

In addition to the impact of the above-described cognitive-communication difficulties on the ability of the individual with a TBI to resume pre-traumatic roles and functions, Togher (2001); and Togher et al. (1996; 2004) have extended this notion further by emphasizing the importance of assessing the real barriers faced by individuals with a disability in real life situations, and the need to take cognisance of the broader role played by societal skill and attitude in facilitating, or interfering with the ability of the individual with a TBI specifically to resume their role in society as for example, a parent, student or employee. With reference to the therapeutic process specifically, Togher et al. (1996) refer to disability in relation to society's response, and the need to change the stereotype within the therapist-patient interaction to a more equal dyadic one. In addition (in support of Fine and Asch, 1988), they note the awareness of the role played by the individual with a TBI in the community, and the importance of modifying the attitudes and response of the community displayed towards such individuals in these broader contexts. Thus, for example, Togher et al. (1996, 1997b; 2004) advocate the need to improve communication in Governmental agencies and in private organizations dealing directly with the general public. They emphasize the importance of training programs "for the uninformed sections of the

community" (1997a, p.502) (such as the police) to enhance interactions when dealing with customers with a TBI. By changing their communication behaviours, the person with a TBI "could assume the role of the primary knower more often in service counter interactions" (Togher et al., 1996, p.565), thereby empowering them to take a more equal role in the conversation.

Sarno (1986, 2004) has repeatedly referred to "society's ignorance and lack of awareness of aphasia" (2004, p.23) and in recent personal communication (M.T.Sarno, May 24, 2004) has confirmed how her philosophy regarding aphasia, public ignorance and the impact of the invisibility of communication disorders extends beyond aphasia to other acquired communication disorders. Within the field of acquired brain damage specifically there has been a growing endeavour to tackle the stigma and disability (barriers) associated with aphasia in particular through the use of public surveys (Parr & Byng, 1998). Elman, Ogar and Elman (2000) reviewed the top 50 newspapers in the USA for stories referring to disabilities, and found that the word aphasia was used least frequently as compared with other conditions. These writers conclude the need for advocacy in individuals with aphasia to increase awareness and "give aphasia a name" (p.459). Code et al. (2001) surveyed an unselected group of 929 shoppers in England, USA and Australia to determine their awareness concerning aphasia. Despite some cultural variation, their findings overall highlighted a generally low percentage awareness of aphasia in the general public, as compared with respondents who were professionals. Garcia, Laroche & Barrette (2002) used three focus groups (comprising consumers across 6 categories of communication disorders (including stuttering, voice disorders, aphasia and dysarthria), employers, and SLP's and Audiologists) to examine the awareness of barriers to integration specifically perceived to exist within the workplace for individuals in Canada with a range of communication disorders. They concluded that "there appear to be perceivable psychosocial and environmental factors that contribute to the integration of persons with communication disorders in the workplace" (p.206). Difficulties associated with the communication disorder itself comprised some of the barriers identified. Other factors consensually identified as barriers included self esteem, noise, and attitudes of colleagues, with the latter reportedly a "major barrier for many groups" (p.206).

2.4.1 Consumerism

Parsons, Elkins and Sigafoos (2000) have noted how one of the most valued social roles in Western society is that of the customer/consumer and how in spite of this (with specific

reference to individuals with intellectual disabilities), "surprisingly few investigators have examined the views of business communities towards such customers" (p.244). They refer to research in the United Kingdom by Saxby, Thomas, Felce and De Kock (1986) who interviewed a small number of employers in businesses (cafes, pubs and retail shops) used by customers with intellectual disabilities, and concluded how exposure to such customers may result in more accepting attitudes by the business community. Parsons et al. (2000) extended this research by examining the views of a larger sample of business owners and employers across Queensland, Australia, looking specifically at their attitudes; experiences and perceptions related to interacting with such customers. Their results overall suggested that while business people appeared to exhibit "few special concerns about having people with intellectual disabilities as customers" (p.250), nearly half of the businesses surveyed verbalized concern about the appearance of such customers, who "often acted differently" (p.249). Parsons et al. (2000) emphasize the importance of further research to "assess the acceptance of such individuals in today's highly commercial society" (p.251). With regard to this issue of community barriers for Augmentative and Alternative Communication (AAC) users specifically, Alant (2005b) addresses the "onerous task" faced by AAC interventionists to create opportunities for greater community participation, and highlights the importance of increased visibility of such individuals in everyday life activities. This will facilitate greater awareness and understanding by the community of both disability and diversity. Alant (2005b) stresses the need to build community capacity to accommodate and integrate individuals with disability in society, and in so doing, for the latter's level of participation to deepen with more sustainable long-term outcomes. Furthermore, Alant (2005b) highlights the mindshift that will be necessary for communities to become prepared to change their priorities and work in partnership with professional services in accommodating individuals with disability. She adds that such a process will be empowering for everyone. Bedrosian, Hoag, and McCoy (2003) undertook the first in a series of investigations looking at sales clerks' attitudes towards AAC users, by having 96 sales clerks look at 12 scripted videotapes involving AAC customers (actual AAC users using a Liberator) dealing with a clerk (an actor) at a bookstore checkout counter. The messages of the AAC users were manipulated according to, for example, relevance and speed of delivery. Videos were made from behind the clerk so that only the AAC user's face was visible. After viewing the videotapes the clerks completed a questionnaire assessing their attitudes toward the AAC users. Results revealed that AAC users were rated more highly under slowly delivered message conditions than under any other condition, and the researchers conclude that these findings are valuable in the endeavour not only to facilitate greater independence for the AAC user, but also their inclusion and acceptance in society.

Cottrell (2001) likewise examined the attitudes and perceptions of employees working in a supermarket in England towards individuals with communication disorders, by interviewing them using both an individual and focus group format. She showed the employees video clip footage of individuals with aphasia, dysarthria and other communication disorders, and after a discussion, gave them a questionnaire to complete. Her findings revealed that people's beliefs about communication disability are varied and complex and are influenced by numerous factors, including for example, personal experience, as well as policy within the workplace. In addition, Cottrell (2001) suggests that there may be a hierarchy of general awareness in the public consciousness, with communication disabilities far lower down than physical and visual disabilities. When people meet others with communication difficulties they approach the individual with a wide range of pre-conceived ideas and ideals which may be rigidly adhered to and difficult to modify and which need to be taken cognisance of when developing relevant training programs for communication partners. Cottrell (2001) noted how, when unsure about this person, people tended to react in one of two ways: either through a process of "normalization" (treating them like any other person), or by perceiving them as different, and stereotyping them into an "other" category (such as "they, people like that").

In relation to the Disability Discrimination Act (DDA) (in the UK), Cottrell (2001) observed that discrimination in the workplace is probably occurring as a result of attitudinal barriers caused "unwittingly" (p.88) through a lack of awareness, and that the removal of these attitudinal barriers in order to facilitate greater access is by no means straightforward. In addition, she refers to the apparent lack of communication disability modules evident in disability training programmes to date, and stresses the many existing challenges remaining for the development of suitable training programs, as well as for the creation of more communication-friendly environments. These challenges exist for a number of reasons, such as that people with communication impairments have difficulty complaining about the discrimination against them because of their communication problem, and because service providers are mostly unconscious of this discrimination owing to their lack of awareness. In addition, Cottrell (2001) suggests that training programs will need to take cognisance of how communication disabilities are highly varied and complex, as well as of how to teach individuals to deal with people with differing kinds of communication disabilities and communicative needs. She concludes that "there is a need for wide-ranging and increased training and awareness-raising among the general public about communication disability" (Cottrell, 2001, p.102).

From the above it is clear that the impact of a cognitive-communication disorder on the individual's life can be widespread, and the following discussion will consider models identified by the current researcher as useful in examining this impact further.

2.5 The evolution of the classification of communication disabilities using the World Health Organization schemes

Since 1980, the World Health Organization (WHO) has published a number of classification schemes that have been revised from time to time. The first scheme, namely the International Classification of Impairment Disability and Handicap (ICIDH) (WHO, 1980), used the categories of impairment, disability and handicap. These terms, which reflected "a consequence of disease classification" with negative connotations (WHO, 2001, p.4), were replaced in 1997 by body, structure and function, activity in the revised Beta 1 and Beta 2 drafts (ICIDH-2) (WHO, 1997), aiming to help clinicians shift from a strictly medical impairment-orientated understanding of how to help individuals with chronic impairment, to a social, participation-and-support-orientated paradigm (Holland & Hinckley, 2002; Ylvisaker, 2003). The most recent version in the evolving family of WHO classifications, the ICF (WHO, 2001) is the WHO's current framework for health and disability, to be used internationally as a unified and standard language and framework across disciplines and sectors (WHO, 2001). It is based on a biopsychosocial approach allowing clinicians and researchers to document a wide range of human functioning from biological, individual and societal perspectives (Threats, 2002). Threats, Shadden, Vickers and Lyon (2003) have noted that the ICF (WHO, 2001) is significantly improved in relation to previous versions of the WHO classification. Amongst other things it contains operational definitions for all items, environmental factors; as well as a social model orientation, highlighting the recognition given in this classification scheme to the role of the environment as either facilitating functioning or creating barriers for the people with disabilities. In 2001 the American Speech-Language Hearing Association's Legislative Council (ASHA, 2001) voted for a new Scope of Practice for the profession, stating that the ICF (WHO, 2001) is the chosen framework for the field, reflecting ASHA's "present and future need to broaden our view and demonstrate that the profession makes an important impact on the lives of our clients and the health of the nation" (Threats, 2003, p.4).

The ICF's (WHO, 2001) classification scheme reflects the multiple interactions of the person with the environment, and provides one with a means of organizing measures of function, activity, participation and environmental context. The latter "make up the physical, social and

attitudinal environment in which people live and conduct their lives" (WHO, 2001, p.22) and include aspects external to the person's control which can have either a positive (facilitative) or a negative (barrier) effect on their functioning.

Numerous criticisms have been lodged in the past against the WHO family of classification schemes, and more recently regarding the ICF (WHO, 2001). Hurst (2003), as a disability rights activist and a member of the World Council of Disabled Peoples' International, has criticized the earlier versions of the WHO classification schemes (WHO, 1980; 1997) as being formulated by "non-disabled experts….who perpetuated the concept of disability being another word for incapacity, impairment or lack of functioning" (p.573). In contrast to these earlier versions, Threats (2004) has noted how the ICF (WHO, 2001) "represents an advocacy approach to disability….designed to empower persons with disabilities and organizations that are trying to ensure the right of persons with disabilities to be fully integrated into society " (p.5). Threats and Worrall (2004) have emphasized how the details of the ICF (WHO, 2001) continue to be "work in progress" (p.56), attempting to deal with numerous limitations and practical issues including considerable ambiguity and overlap of codes that are complex and require training to use properly (Simmons-Mackie, 2004; Threats & Worrall, 2004). Despite these limitations, and the ongoing need for clarification and usability of the codes, Threats (March, 2003) has commented that "Using the ICF codes will take time….ICF must be thought of as a constitution, which sets the rules and framework. It's the ingenuity of individuals to use it and make it really grow and prosper" (retrieved May 21, 2004 from http://www.cdc.gov/nchs/data/icd9/Threatspot.pdf). Threats (2002) has furthermore noted how the ICF (WHO, 2001) provides a common language between clinicians and researchers, thereby advancing the quality and quantity of clinical research, and enhancing our understanding of the relationship between Body Structure/ Function and the Activity /Participation domains; as well as the role of Environmental Factors and Personal Factors in the rehabilitation process. Specifically, with reference to the Speech Language Pathology (SLP) profession, Threats & Worrall (2004) maintain that the ICF (WHO, 2001) promotes systematic examination of the environmental barriers for individuals with disabilities, emphasizing the importance of a facilitative and barrier-free environment to enable individuals with disabilities to function optimally.

Although the importance of environmental factors for individuals with communication disorders has been recognized in the SLP literature for many years (as referred to by, for example, Lubinski, 1981, 1995, 2001; McCooey, Toffolo & Code, 2000; Sarno, 1969; Van Riper, 1939; Wepman,1968 (cited in Avent, 2004)), Threats and Worrall (2004) note how policy development

to date has paid much attention mostly to the physical environment (resulting in initiatives such as wheelchair-accessibility for public buildings). Since communication depends heavily on a physically-and-attitudinally-facilitative environment, the ICF (WHO, 2001) provides a broader framework from which to view barriers relevant to individuals with communication disabilities, so that policies addressing these barriers will in the future create "more accessible and communication-friendly environments for all language-impaired people" (Threats & Worrall, 2004, p.59). In promoting systematic examination of such environmental barriers, and in emphasizing the centrality of a facilitative environment for the optimal functioning of individuals with disabilities, the ultimate goal will be the improvement in the person's actual life of the activities he or she finds important (Hirsch & Holland, 2000; Lubinski, 1981, 2001). T. Threats (personal communication, April 30, 2003) has further stressed his belief that it is the SLP's responsibility "to reduce the environmental barriers for our neurogenic clients with communication disorders, and their moral obligation to advocate for creating environmentally and communication friendly places for all persons with communication disorders."

2.6 Shifting from the medical to the social model

As with the above-described shifts within the evolution of WHO classification schemes (WHO, 1980, 1997, 2001), there has, over the past decade, likewise been a philosophical shift regarding intervention with the adult with acquired neurogenic communication disorders (including TBI and aphasia), from the traditional medical model (focusing on the impairment and viewing these individuals as 'patients' with an illness that will recover with treatment), to a social model of intervention, promoting an individual's participation in a social world with reduced barriers, in which the chronicity of the communication impairment is acknowledged. This conceptual model, in a sense, reflected the maturation of Sarno's thinking (Sarno, 1969, 2004; Sarno, Silverman & Levita, 1970), who for over 4 decades has advocated the need for SLP's to examine the impact of a communication disorder on the lives of the individuals for whom they provide therapy. Numerous authorities have described the concept of living with aphasia from a long-term perspective, with services viewed along a continuum as the needs of the individual evolve over time (Parr et al., 1997; Pound et al., 2001b; Simmons-Mackie, 2000). This concept is particularly pertinent in the TBI population - the majority of whom are young when the injury occurs, and who still have many years of living, working and socializing ahead of them (Larkins, Worrall & Hickson, 2000; McDonald et al., 1999; Snow & Douglas, 1999; Ylvisaker & Feeney, 1996).

When presenting this social model of disability with specific reference to the field of acquired neurogenic disorders, it will become clear that the literature related to individuals with aphasia is far more extensive than that related to the individual with a TBI. Personal discussions with numerous authorities in the field including Holland (2004); Kagan (2004); Pound (2004); Sarno (2004); Sohlberg (2004); Togher (2004) and Ylvisaker (2004) (*Appendix 1A*), reflect the consensual belief that the issues pertaining to the individual with aphasia can be relevantly extrapolated to the individual with a TBI. C. Pound has likewise noted how the "the social model approach would seem to me to be equally applicable across any disability group since the principle of change lies more in the barriers in the social environment (attitudes; lack of training and attention to access etc.) than anything to do with the specific nature of the impairment" (personal communication, May 28, 2004). M.T. Sarno has likewise affirmed (as is the case with aphasia) that, "The need for all who come in contact with individuals who have communicative disorders secondary to TBI to be sensitive to their feelings, needs, impairments and disabilities, and versed in how to accommodate them into the human community at all levels, is considerable and essential to their wellbeing (and to our functioning as a caring, benevolent society)" (personal communication, May 24, 2004).

The social model of disability emerged within British disability theory, first published in the late 1970's, which challenged the medical model about misleading people to view disability as a disease process and a personal tragedy. According to this model, disability did not arise from the functional limitations of the individual, but rather the failure of society and the physical environment to take their needs into account, thereby creating a role of dependency and disempowerment (French, 1994; Jordan & Kaiser, 1996; Oliver, 1996). Pound et al. (2001b) have identified two key concepts as reflecting the essence of this model: disabling barriers; and the concept of disability and identity. Oliver (1996, p.33) powerfully highlights the former by stating that:

> "All disabled people experience disability as social restriction whether these restrictions occur as a consequence of inaccessible built environments, questionable notions of intelligence and social competence, the inability of the general public to use sign language, the lack of reading material in Braille, or hostile public attitudes to people with non-visible disabilities".

Oliver (1996) emphasizes a diverse range of disabling barriers confronting such an individual, including environmental, informational, and attitudinal barriers. These barriers were construed as being created by a society bounded by non-disabled assumptions, filled with attitudinal stereotypes and institutional discrimination. The second concept, namely disability and identity,

is likewise stressed by Oliver who challenges "the dominant social perceptions of disability as a personal tragedy and the affirmation of positive images of disability through development of a politics of personal identity" (1996, p.89). Tregaskis (2000) refers to the social model of disability as being "an emancipatory concept in the lives of many disabled people" (p.343), and she observes how disabled people in Britain have begun to "reclaim control of their lives" (p.344). Initiatives such as the establishment of the Independent Living Movement, which started in the United Kingdom, and the formation of Disabled Peoples' International represented the birth of the international disability rights movement worldwide (Disabled People South Africa (DPSA), 2000). These disability movements have constituted powerful lobby groups that continue to pressurize various governments worldwide to implement changes and to gradually erode the stigma of disability. The message conveyed by these groups has been to acknowledge the right of the disabled to be both equal and different – rather than to try and hide their disability (French, 1994). In South Africa specifically, the foundation of the disability rights movement was laid in 1981 – the year designated by the United Nations as the International Year of Disabled Persons. According to the DPSA (2000), the South African Government did not recognize this year, but despite that, disabled activists came together to discuss their marginalization, which, in the context of a racially-segregated South Africa at the time, strengthened their goal to eradicate discrimination on several levels. People with disabilities then started to organize themselves into local groups and in 1984 disabled activists came together in South Africa to form DPSA (2000), which today is a democratic cross-disability umbrella body of organizations of people with disabilities in South Africa, aiming to unite people with disabilities across type of disability, race, gender, language, religion and socio-economic group. Furthermore, through consulting with people with disabilities countrywide, the Integrated National Disability Strategy (White Paper) was formulated in 1997, providing a blueprint for inclusion and integration of disability into every aspect of government in South Africa, and highlighting the challenge of the transformation of attitudes, perceptions and behaviour towards people with disabilities at all levels of society (DPSA, 2000).

Clearly this social model has endeavoured to increase self determination, personal responsibility, self advocacy and participation for the individual with a disability, advocating that the true experts are those who experience the disability firsthand, so that, for example in the case of TBI, the personal reactions and experiences of the individuals and their partners are central to understanding the meaning of living with a TBI. Professionals and individuals with disabilities have since begun to collaborate and share their respective expertise in the endeavour to identify and ultimately remove disabling environmental barriers (Finkelstein, 1991). In the late 1980's

the consumer movement for individuals, specifically with acquired brain injuries, began to flourish in the USA, resulting in the establishment of the National Head Injury Foundation and the National Aphasia Association (NAA) (Sarno, 1986; Sohlberg & Mateer, 2001b). Sarno (1986, p.23) celebrated the formation of the NAA, adding that although each disability group considers itself a unique minority, "the special problems of the aphasic community transcend those of most disabled groups because the very faculty which gives each of us a voice, the power to communicate, is impaired." Holland (2000) has noted the following combined group of factors leading to limited self determination for individuals with aphasia including: a) the language impairment itself – making it difficult to advocate on behalf of one's causes and beliefs; b) society's unease with brain damage and regarding how to interact with such individuals; and c) until recently the relative lack of advocacy for people with aphasia, resulting in both public ignorance and apathy, which, according to Holland (2000); and Pound et al.(2001b) have recently shown an increase, with support programs flourishing worldwide. As A. Holland has commented (personal communication, June 2, 2004), "My own sense is that it extends beyond aphasia and even TBI to most neurologically-mediated communication disorders …. Disablement is a societal response to difference as well as a problem to the individual who possesses a disability."

2.7 Approaches to training communication partners of individuals with neurogenic communication disorders

Shifts within the WHO classification schemes (WHO, 1980, 1997, 2001), together with alterations within the models of intervention, from the medical to the social model of disability, have clearly resulted in the endeavour to extend the view of the individual with a communication disorder from a narrow patient perspective, to that of a "consumer" of society, whose perspective needs consideration (Parr, 1996) in their endeavour to resume their role in society. These shifts have likewise been reflected in the consideration of the facilitators and barriers in the individual's environment, encompassing the role of the possible range of communication partners within the environment. The training of conversation partners to enhance life participation is consistent with the framework of the ICF model (WHO, 2001), as well as with the social approach to disability. The importance for individuals, that they can participate as valued members of a more facilitative society, is likewise reflected in the literature, where studies by numerous authorities working with individuals with acquired communication disorders such as aphasia , and cognitive–communication disorders (following a TBI) have called for environmental accommodations, contextualized cognitive supports, and the training of

as wide a range of communication partners as possible to communicate more easily and satisfyingly with these individuals (including Coelho, De Ruyter & Stein, 1996; Cottrell, 2001; M.Cruice (personal communication, October 18, 2002); Cruice, Worrall, Hickson & Murison (2003); Elman et al., 2000; Jordan, 2001; Kagan & LeBlanc, 2002; Lubinski, 1981, 2001; Lyon, 1989; Lyon et al., 1997; Pound et al., 2001b, 2001c; Racino & Williams, 1994; Simmons-Mackie & Kagan,1999; Sohlberg, 2002; Threats, 2002; Togher, 2000, 2001; Togher & Hand, 1999; Togher et al.,1997a, 1997b; 2004; Worrall & Yiu, 2000; Ylvisaker, 2002; Ylvisaker et al., 2003; Ylvisaker, Feeney & Urbanczyk, 1993). In so doing, they will "restore their membership in the human community" (Sarno, 2004, p.29), and impact positively on the quality of life of both the individual with a disability (who will feel more respected and in control of their own lives), as well as their communication partner.

Kagan (1995); Kagan and Gailey (1993); Kagan and LeBlanc (2002) and Kagan et al.(2001) have acknowledged the influence of the earlier writings of Sarno (1993, 1997) in their endeavour repeatedly to highlight the reduced opportunities that individuals with aphasia have to participate in conversation, which in turn "reduces opportunities for revealing competence" (Kagan, 1995, p.17). Kagan and Gailey (1993), in providing a rationale for the need for training conversation partners to create access to conversation for individuals with aphasia, note the absence of anything analogous to wheelchair ramps for these individuals, and advocate the need to create "communication ramps" (1993, p.204). In 2000, Kagan together with Chapey, Duchan, Elman, Garcia, Lyon and Simmons-Mackie joined to form the Life Participation Approach to Aphasia Project Group (LPAA, Chapey et al., 2000). This advocated a consumer-driven model of intervention reflecting 5 core values making real life differences, and minimizing the consequences of the disease or injury. The first of these values is to work towards enhancement of life participation for the individual. Within this framework, Kagan et al. (2001); Kagan and LeBlanc (2002), and Simmons-Mackie et al. (in press) report on programs undertaken under the auspices of the Aphasia Institute, Toronto, where volunteers are trained to use an approach, 'Supported Conversation for Adults with Aphasia' (SCA), as a tool for communication partners, providing the necessary communicative support for individuals with aphasia. Kagan et al. (2001, p.634) noted how "the lack of skill of the untrained conversation partners can pose a barrier to effective communication" and advocated training to provide the communication partner with the skill to both acknowledge and reveal the inherent competence of the individual with aphasia. Results provided experimental support for the efficacy of this training in improving such partners' skills, and Kagan et al. (2001) concluded that the brain injured partners, though not specifically trained, also reportedly improved significantly. Kagan and Shumway (2003a,

2003b, 2003c, 2003d, 2003e, 2003f) have recently developed a series of pictographic resources for various healthcare professionals including chaplains, counsellors and doctors in the ongoing endeavour to empower both the individual with aphasia as well as the communication partner in society, and thereby to lessen barriers. Kagan and LeBlanc (2002), and Simmons-Mackie et al. (in press) use their data to motivate for infrastructure change within the healthcare services in Canada. Such change would aim to provide individuals with aphasia and their families truly client-centered care along with relevant support to enable them to participate in society. Alant and Lloyd (2005) likewise advocate a change of training paradigm for professionals, with an emphasis on focusing on developing support systems to build community capacity for enhancing the participation of individuals with a disability across the range of culturally and socio-economically diverse contexts. In the same vein, Simmons-Mackie et al. (in press) similarly advocate that long-term sustainable changes in communicative access for individuals with aphasia are achievable through programs training different sectors of society to provide communicative supports to these individuals, and in so doing, to increase access and participation. Given the "little information about intervention and outcome related to improved communicative access within the larger realm of society or systems" (Simmons-Mackie et al. (in press)), these clinician-researchers developed the Communicative Access Improvement Project (CAIP). This targeted the training of individuals within the health care systems where people with aphasia face ongoing decisions regarding e.g. menu choices; agreeing to surgery; and decisions re living situations once out of hospital.

More specifically in the area of individuals with AAC needs, Alant (2005a) has referred to the concept of participation as being comprised of levels – and that interventionists need to consider whether the client is participating at a more tacit (more obvious) or deeper level (Seligman, 2002). For sustainable intervention to take place, Alant (2005a) advocates the necessity of a dynamic relationship between participation and skills. Alant (2005b), and Alant and Lloyd (2005) have likewise urged the formation of collaborative partnerships beyond the individual with a disability and their family members, to include the broader community, and in so doing, to facilitate deeper, more sustainable participation for the individual with AAC needs. Despite this call for greater community integration and participation by individuals with disability, with specific reference to the individual with a TBI, Togher et al. (2004) have noted how there are only a few documented cases where community agencies have been trained regarding how to create more normal and respectful communicative opportunities for such individuals through partner training (Holland & Shigaki, 1998; Togher et al., 2004; Ylvisaker et al., 1993).

Table 2.1 identifies research by Togher and her colleagues (Togher, 2000; Togher and Hand, 1999; Togher et al., 1997a, 1997b) who carried out in-depth examinations of the communication interactions of individuals with a TBI, as an emerging rationale for her police officer training program (Togher et al., 2004). In addition, Table 2.1 presents an overview of the published volunteer and communication partner training programs, as well as of programs aimed at training and empowering the individuals with aphasia and TBI themselves, which aim ultimately to facilitate greater community integration for individuals with aphasia and TBI. Closer examination of Table 2.1 reveals the dearth of published research evaluating the effects of training on communication partners of individuals with TBI specifically (noted by Togher et al. (2004), emphasizing the need for such research. More specifically, Togher et al. (2004) note the surprising lack of descriptions of training programs that could be appropriate for training community groups who might interact with individuals with a TBI, in spite of community reintegration being frequently suggested as the primary aim of the rehabilitation of an individual with a TBI (Coelho, et al., 1996; Ylvisaker & Feeney, 1998d).

Table 2.1 Research reflecting published partner training programs of individuals with aphasia and TBI

RESEARCHER	GOAL OF RESEARCH	OUTCOME AND RECOMMENDATION
Lyon, J.G., Cariski, L., Keisler, J., Rosenbek, J., Levine, R., Kumpula, J., Ryff, C., Coyne, S. & Blanc, M. (1997).	Developed a treatment model, Communication Partners, using trained community volunteers to train 10 communication pairs (consisting of patient with aphasia; and caregiver) with effective communication skills both in the clinic, as well as in the home and community twice weekly over a total of 20 weeks.	No significant gains on standardized Aphasia test batteries, but all participants noted statistically significant gains in the aphasic adults' sense of well being, and increased ability to participate in life.
Togher, L., Hand, L. & Code, C. (1997b).	Examined communicative exchanges of 5 individuals with a TBI and 5 matched controls across 4 speaking situations including speaking to a therapist, the police, the bus timetable information service, and their mothers.	Examined disempowering strategies used by partners on the telephone dealing with individuals with a TBI. Urge training individuals to deal more competently with individuals with a TBI in service encounters such as requesting bus timetable information and licenses, and in so doing, to learn how not to disempower the communication partner with a TBI.
Togher, L., Hand, L. & Code, C. (1997a).	Examined and compared the communicative abilities of an individual with a TBI and his brother during 4 communicative interchanges.	Individuals who have sustained a TBI may be compromised in social interactions. Society generally, as well as the individual with a TBI specifically, needs education about interacting more equally and competently.

Table 2.1 (continued). Research reflecting published partner training programs of individuals with aphasia and TBI

RESEARCHER	GOAL OF RESEARCH	OUTCOME AND RECOMMENDATION
Sohlberg, M.M., Glang, A., & Todis, B. (1998).	Trained caregivers using single subject experiments to provide appropriate cognitive support to 3 individuals with a TBI in their natural living environments.	All 3 subject/caregiver groups demonstrated improvement in the target behaviour during the baseline period before intervention commenced. The act of measuring the performance of the subjects and support persons was considered to change the behaviours of the support persons.
Togher, L. & Hand, L. (1999).	Looked at interactions of 7 individuals with a TBI and their matched controls in 2 conditions: speaking to two 16 year olds about driver education; and requesting information from the 2 researchers.	Individuals with a TBI become disempowered when requesting information, versus giving information. Recommend the need to train individuals with a TBI about expected structure and scripts of interactions in order to be more effective.
Booth, S., & Swabey, D. (1999).	Ran a group communication skills program for carers of adults with aphasia over 6 weeks (2 hours at a time), teaching skills, and modifying perceptions about aphasia.	Advice and information about aphasia improved perceptions of caregivers regarding their relatives' aphasia.
Simmons-Mackie, N., & Kagan, A. (1999).	Examined videotapes of good and poor communicative skills of 10 volunteer non-aphasic partners interacting with 10 individuals with aphasia.	Partner training needs to target both communicative skills, and attitudes towards aphasia. The "good" partners judged the individual with aphasia as more competent; interesting and sincere than the "poor "partner.
Worrall, L., & Yiu, E. (2000).	Trained 15 volunteer conversation partners for 2 hours each about stroke and aphasia, and demonstrated a structured functional communication therapy program to use with individuals with aphasia in their homes over a 10 week period. The program focused on 10 general daily communication domains such as banking and using the telephone.	Volunteer training made small (clinically significant) changes in everyday communication of individuals with aphasia, reducing their isolation in society.
Togher, L. (2000).	7 subjects with TBI were compared with 7 matched control subjects across 2 communicative conditions.	Using the tenets of functional linguistics, Togher suggests democratization of discourse via: a) empowering individuals with a TBI by teaching them various discursive skills with various partners (as they appear to communicate better when in a more reciprocal or powerful linguistic interaction); and b) equalizing power relationships with people communicating with individuals with a TBI, training them, e.g. to be less controlling.

Table 2.1 (continued). Research reflecting published partner training programs of individuals with aphasia and TBI

RESEARCHER	GOAL OF RESEARCH	OUTCOME AND RECOMMENDATION
Kagan, A., Black, S., Felson Duchan, J., Simmons-Mackie, N. & Square, P. (2001).	In an effort to increase the social participation of individuals with aphasia (by reducing barriers to effective communication), this study evaluated the efficacy of Supported Conversation for Adults with Aphasia (SCA) which taught conversational techniques to 20 volunteer participants using a 1 day workshop and 1.5 hours of hands-on experience within a 2 week period. 20 other control volunteers were not trained but exposed to people with aphasia only.	SCA training of volunteers increased access to opportunities for conversation by reducing barriers for the person with aphasia. Empirical evidence of positive social and communicative outcomes of training communication partners. Their partners with aphasia also improved significantly even though they did not receive specific training.
Cottrell, S. (2001).	Examined attitudes, perceptions and beliefs of 13 lay people working in a British supermarket towards individuals with communication difficulties following aphasia. Looked at videotaped interviews with an individual with aphasia, and used focus groups and individual interviews to access information.	Noted a varied range of beliefs about communication disability as a result of differing pre-conceived ideas that may not be easily modified. Attitudes of communication partners a key component in attempting to remove barriers and facilitate access.
Togher, L., McDonald, S., Code, C., & Grant, S. (2004).	Trained 10 police officers over a 6 week period to determine whether training these communication partners would enable them to deal more effectively with telephonic service inquiries from individuals with a TBI.	Trained police improved their conversational skills involving individuals with a TBI, thereby enabling such individuals to communicate more appropriately and to resume some of their social roles in the community. Advocate replication of the study using a larger trial to train a range of service providers interacting with individuals with a TBI.
Feeney, T.J. & Ylvisaker, M. (2003).	Collaborated with teachers and parents of 2 children with challenging behaviours resulting from a TBI in order to reduce their challenging behaviours in the classroom and at home. Behavioural, cognitive and executive behaviour supports were implemented.	Reduction of behavioural problems reported in both children, through the use of a support-oriented intervention combining cognitive and behavioural components, with the collaboration of the team and everyday people in the children's environment.

Table 2.1 (continued). Research reflecting published partner training programs of individuals with aphasia and TBI

RESEARCHER	GOAL OF RESEARCH	OUTCOME AND RECOMMENDATION
Braga, L.W., Campos da Paz, A., & Ylvisaker, M. (2005).	Used 2 groups: First group trained parents of children with TBI aged between 5 - 12 years in an intensive 2 week program to work on cognitive and physical abilities within the child's home environment. Weekly follow-ups with the professional team over a year period to work with their children. Second group, the direct clinician-delivered group, received conventional cognitive-physical rehabilitation 2 hours a day 5 days a week over a year period.	Although both groups demonstrated improvements in physical and cognitive functioning, the family-supported intervention group demonstrated statistically significant and clinically important improvements in these 2 outcome domains. Family-supported intervention advocated.
Simmons-Mackie, N., Kagan, A., Christie, C.O., Huijbregts, M., McEwen, S., & Willems, J. (in press).	Implemented the Communicative Access Improvement Project (CAIP) to train teams (including managers, aides, housekeepers as well as professionals) working in an acute care, rehabilitation, and long care health facility with knowledge and skill in providing communicative supports and access to decision-making for people with aphasia. Training took place over 2 days, with a follow-up 4 months later.	The CAIP succeeded in improving communicative access to communication, as well as the decision – making of people with aphasia, thereby increasing their participation. This project considered a useful way of targeting systems level change, and removing barriers within healthcare facilities.

In the area of cognitive rehabilitation specifically (which aims to rehabilitate individuals with cognitive impairments (such as individuals with a TBI)), attention has likewise shifted increasingly towards a consideration of barriers existing within the social environment. Sohlberg & Mateer (2001b, p.3) note how:

> "Although some of the fundamental goals of improving and compensating for cognitive abilities continue to be the mainstays of rehabilitation efforts with this population, the last 25 years have allowed a richer appreciation for the influence of contextual variables, the personal, emotional, and social impacts of brain injury; and their interactions with cognitive function".

These authorities stress how empowerment principles guide rehabilitation efforts so that the rehabilitation should not only build strengths within the individuals and their families, but should also, through a coaching process, assist these people to become involved in planning the intervention, setting goals, participating and evaluating its outcome.

Sohlberg et al. (1998); Ylvisaker and Feeney (1996, 1998b, 1998d, 1998e, 1998f, 2001); Ylvisaker and Holland (1985); Ylvisaker et al. (2001a; 2003) likewise advocate a collaborative brain injury intervention approach for the rehabilitation of individuals with chronic cognitive behavioural and communication impairments after brain injury, using an apprenticeship or 'supported participation' model (Ylvisaker et al., 2003, p.9). In this functional and richly contextualized approach, everyday people collaborate with, and provide ongoing supports for the individual with a TBI to participate within the context of their everyday routines (such as in the home, work and school environment). Collaboration ranges from, for example, providing in-service information to relevant everyday people, to situational coaching of both the individual with a TBI and the relevant person in that particular environment (e.g. the teacher, parent, therapist, aide, employer) about ways to use positive behaviour supports and become "facilitative conversationalists" (Ylvisaker et al., 2001a, p.787) in the endeavour to elicit positive, respectful communicative interaction from, and enhanced participation for, the individual with a TBI (Ylvisaker, 2002; 2003). In addition, these authorities advocate the use of projects - taking the form of, for example, collaboratively produced self-advocacy videos (Ylvisaker & Feeney, 1998b, 1998c, 2000; Ylvisaker et al., 2001b), ideally creating an expert role for the person with a disability, which is empowering for the individual, as well as empowering for the targeted individual/s who in turn gain more competence in interacting with that person.

In addition, through working repeatedly on goal setting, planning and monitoring with support by others in everyday contexts, practice becomes increasingly automatic and strategies become increasingly internalized (Ylvisaker & DeBonis, 2000; Ylvisaker et al., 2003). This helps the individuals succeed at levels "beyond those predicted by their degree of neurologic impairment" (Ylvisaker & Feeney, 1996, p.223). Not only has this collaborative/supported participation approach within the individual's own culture and context been viewed by Ylvisaker and Feeney (1998c); and Ylvisaker et al. (2003) as working towards the goal of a more meaningful and ultimately satisfying life for the individual, but with reference to the ICF (WHO, 2001) this approach can be conceptualized as removing social barriers and improving their ability to participate more deeply and in a more sustainable way in their everyday communities (Alant, 2005a, 2005b; Alant & Lloyd, 2005).

2.8 Summary

The purpose of the current chapter was to describe the conceptual framework of the ICF (WHO, 2001), and the social disability model, specifically in relation to the individual with a TBI. The

chapter began with an overview of TBI and the possible range of cognitive-communication impairments that may result. A more in-depth look at TBI research and the interpersonal functions of language in the interaction between individuals with a TBI and various communication partners was undertaken. Differences between aphasia and TBI were also highlighted. The views of society towards individuals with a communication disorder generally, and with a TBI specifically, were examined, reflecting a general lack of awareness, with an environment concomitantly filled with informational and attitudinal barriers and a resultant marginalisation of the individual in society. The ICF (WHO, 2001) and the social model of disability are used to examine this impact further, and to emphasize the need to create environmentally–and-communication–friendly places for all individuals with communication disorders. One of the ways to achieve this is through communication partner training programs, and the literature reviewed reveals a dearth of published research reflecting such programs using communication partners of people with a TBI. The need for such training (incorporating broader social systems) with skills to provide support, lessen barriers, and empower both the individual with a TBI and their partners, (thereby potentially enhancing life participation), is suggested.

CHAPTER 3

CONTEMPORARY CORPORATE PRACTICE AND TRAINING TRENDS IN RELATION TO INDIVIDUALS WITH A COMMUNICATION DISABILITY

3.1 Introduction

Chapter 2 noted some of the shifts that have been observed in the field of rehabilitation, from a medical model to a social model, advocating increased participation for an individual with a disability by means of the removal of environmental and attitudinal barriers. This chapter examines the legislative changes that have taken place worldwide generally and in South Africa particularly, in relation to such individuals, and the extent to which they are daily impacting on contemporary corporate doctrines and practice in the workplace. In addition, the dearth of corporate training programs, specifically in relation to customers with a communication disability following a TBI, is considered.

3.2 The corporate legislative environment

In 1994, South Africa emerged from four decades of Apartheid, inheriting a legacy of inequalities across all spectrums of society (Fisher, Katz, Miller & Thatcher, 2003; Grobler, Warnich, Carrell, Elbert & Hatfield, 2002; Swart, 2001). In the South African workplace specifically, various legislative changes have since been made (in line with worldwide trends) aiming to address these inequalities through the removal of some of the existing barriers for previously disadvantaged and minority groups, including those within the reported approximately 2,5 million individuals with disabilities in South Africa (Silver & Koopman, 2000; Swart, 2001). These have included the Employment Equity Act (No 55 of 1998) (outlawing discrimination on the basis of disability during the recruiting process, as well as within the workplace itself), applying to employers with more than 50 employees, or with a turnover annually that exceeds a specific amount (DPSA, 2000). Such companies are termed: designated employers. Other laws include the Skills Development Act (No. 97 of 1998) aimed at improving the skills of the South African workforce and encouraging employers to use the workplace as an active learning environment (Alant, 2001; DPSA, 2000; Grobler et al., 2002; Silver & Koopman, 2000). The Code of Good Practice (Employment Equity Act No 55 of 1998)

serves as a guide for the employer and the employee with a disability, promoting equal opportunities and fair treatment for individuals with disabilities. Silver & Koopman (2000) note how in spite of the legislation, very few companies in South Africa have addressed these issues to date, and they challenge South African businesses to join worldwide trends in becoming socially-responsible companies, integrating these laws, and creating inclusive workplaces, which Grobler et al.(2002) likewise emphasize as being "necessary for organizational survival" (p.45). Grobler et al. (2002) have further stressed how companies will need to commit themselves to a diverse workforce, tapping the potential of that workforce, and changing attitudes within the culture of the company from the top management down towards accommodating such a workforce, and removing prejudice and stereotypes.

Swart (2001) undertook research to determine the attitudes of a sample of businesses in the Cape Province as regards: complying with the Employment Equity Act (No 55 of 1998); employing and accommodating individuals with disability; together with the perceptions of non-disabled employees regarding colleagues with a disability. He noted how (as compared with research carried out by companies in the UK and USA on the costs and benefit of employing individuals with disability), in South Africa "very little, if any research has been done locally on these issues" (p.1-2). His findings included the ignorance and discomfort of non-disabled people around people with disabilities, lack of knowledge concerning the abilities of such individuals, difficulties reported in finding suitably-qualified people with disabilities to employ, and he reported that 25% of his sample of companies (in spite of being designated employers), had no policy in place to integrate employees with disability. Swart (2001) concluded that South African companies need to be more "pro-active" (p.9-1) in implementing policies dealing with such issues. Silver and Koopman (2000) likewise observe that a major change of attitude is needed in the culture of organizations in order to integrate individuals with disability, to match the job with the individuals, and to put the correct supports in place. They encourage South African businesses to become "the employer of choice" (p.9) for people with disabilities, thereby "positioning your organization and managing it in such a way that the most talented people with disabilities and people with the greatest potential are drawn to work for your organization" (p.9).

The ability to be gainfully employed and enjoy the job is one of society's "most valued life participation events" (Garcia et al., 2002, p.187). With regard to individuals with communication disorders specifically, Garcia et al. (2002); Jordan and Kaiser (1996); and Ruben (2000) have highlighted how people in many workplaces need good communication skills, placing such individuals at a disadvantage when seeking and maintaining employment, owing in large part to

the obstacles they encounter. These include the attitudes of colleagues within the workplace who are mostly ignorant about communication disorders, owing to their invisibility. Jordan & Kaiser (1996) advocate the need for partnerships with employers to educate them about reducing barriers for these individuals, and setting realistic goals. However, in spite of this recommendation, since Supported Employment (SE) was defined in the 1986 Amendment to the Rehabilitation Act in the USA, Wehman et al. (1988; 1990); and Wehman, West, Kregel, Sherron & Kreutzer (1995) describe the many challenges remaining of integrating individuals with a TBI specifically, in the workplace. The need for individualized models incorporating trained employment specialists working closely with the supervisor/employer, and ensuring that environmental modifications, strategies and contextualized cognitive supports are in place in an ongoing way to assist them in maintaining employment, has been emphasized by these authorities, together with Ylvisaker, 2003; Ylvisaker & Feeney, 1996, 1998b, 1998d, 1998e, 1998f; Ylvisaker, Feeney & Feeney, 1999.

3.3 Corporate practice and training trends

> A customer is the most important visitor on our premises.
> He is not dependent on us.
> We are dependent on him.
> He is not an interruption on our work.
> He is the purpose of it.
> He is not an outsider on our business.
> He is a part of it.
> We are not doing him a favour by serving him.
> He is doing us a favour by giving us an opportunity to do so.
>
> (Mahatma Gandhi, cited in Ackerman, 2005, p.2)

In South Africa, the Skills Development Act (No. 97 of 1998) was implemented to encourage businesses to invest in educating and motivating their workforce, and in so doing, to ensure the ongoing broadening of employees' skills in order to improve the quality of life of their workers (Fisher et al., 2003; Grobler et al., 2002). The process of employee education describes training in which the employee gains information and skills tailored to their own workplace (Grobler et al., 2002). Grobler et al. (2002) refer to the terminological shift from training and development to learning and development, highlighting the acquisition of knowledge that is sustainable. These writers refer to the contemporary shift in focus in business today to empower employees from

management downwards to be responsible to the customer, and how customer service gives the company the competitive edge in their own industry. Grobler et al. (2002) have pointed out that the traditional South African company is undergoing change, with a shift of values from (among others) "individualism to teamwork and from short-run profits to a customer-driven focus" (p.4), where people form the intellectual growth of the organization, and empowerment and enabling becomes an integral part of the culture of the organization. Ackerman (2002) has consistently emphasized the endeavour to practice this philosophy through his company's 'caring for the customer is everything policy' (p.186). A review of numerous well-recognized business resources emphasize the importance of the customer, and personalized customer service in contemporary retail practice, without any specific reference to interacting with customers with a disability (Ackerman, 2002, 2005; Cheales, (retrieved April 26, 2004 from http://www.petercheales.co.za/presentationsiwasyourcustomer.htm); Covey, 1992, 2004; Hammer, 2001; Kotter & Cohen, 2002; Lewis & Bridger, 2000; Majchrzak & Wang, 1998; Raymond, 2003; Ulrich, 1998; Underhill, 1999). Hammer's concept of 'customer economy' (2001, p.6) reflects his belief in how "executives of the most powerful companies in the world now tremble before their independent and demanding customers" (p.5). Although Hammer (2001) stresses the need to remove any barriers for customers, his concept of barrier only includes brands and product availability, with no mention of barriers for a potentially diverse range of customers. Similarly Underhill (1999), in examining the 'science of shopping' (p.33), in which he emphasizes the need to spend time with the shopper, makes no mention of diversity issues, or the necessary skills to interact with customers with a disability.

Bramley (2003a, 2003b); Coats (2003a, 2003b, 2003c, 2003d); and Codrington (2003a, 2003b, 2003c, 2003d, 2004), (a group of generational experts developing strategies for both large and small South African and global businesses), have extended the concept of customer service to a consideration of the corporate environment. They propose that the focus of contemporary business needs to start from within a relationship economy, where the 21st century model concerns relationships, respect and a human touch in relation to both its employees and customers. This concept can likewise be aligned with the conceptual framework of the ICF (WHO, 2001), emphasizing the benefit of creating an environment that is facilitative, more accommodating for diversity, and potentially barrier free, thereby facilitating enhanced participation (WHO, 2001). Coats (2003d) has stressed how "relationships ultimately will be more important than transactions" and that loyalty to any company will be facilitated through the customer to whom they need to listen and relate. The company that functions in terms of a

relationship focus will, according to Coats (2003d) and Codrington (2003c, d) be different from all its competitors selling the same products and services at similar prices. Coats (2003c) and Codrington (2003a) maintain that future leadership will have to ask new questions about relationships including: "Do people here know how to listen and speak to each other?" and "Do we respect and embrace diversity?" (Coats, 2003c, retrieved March 28, 2004 from http://www.tomorrowtoday.biz/article011.htm). G. Codrington (personal communication, April 21, 2004 (*Appendix 1B*)) has noted that companies today should create an environment that is "internally attractive to the employee and externally attractive to the customer" where companies no longer pay "lip service" to caring about their customers, and adds that this needs to be cemented into the culture of the company. Furthermore, he stresses how "the spirit of Ubuntu positions us in Africa and globally for a relationship economy."

Individuals in corporate transformation training, and human resource development in South Africa specifically (including Bhengu, 1996; M. Boon (personal communication, April 12, 2005); Bramley, 2003a, 2003b; Coats, 2003a, 2003b, 2003c, 2003d; Codrington, 2003a, 2003b, 2003c, 2003d, 2004; Mbigi & Maree,1995) are among the many who have encouraged companies to harness their own African culture in an innovative way to various managerial concepts and practices, and in so doing, to contribute to and expand global corporate trends. They advocate revisiting the concept of Ubuntu (a Southern African term for humanity implying caring, sharing and being in harmony) (Bhengu, 1996; Mbigi & Maree, 1995) "on a journey to recovery" (Ackerman, 2005, p.130) in order to reduce the disharmony within companies, and to promote co-operation and team-spirit between employees across the diversity of languages and cultures. Bhengu (1996) and Mbigi & Maree (1995) have shown how an Ubuntu management approach incorporates many of the ingredients of finding soul in the workplace, encouraging a spirit of working together and respecting human dignity. These above-described shifts comprise what Pascale, Millemann and Gioja (1998) refer to as "leading from a different place" (p.179), resulting in "transformations that need to begin with the operating state of the leaders themselves" (p.179). Zander and Zander (2000) likewise refer to these shifts as "creating visions and establishing environments where *possibility* is spoken" (p.163). Through discussion of the concept of possibility, they examine the ways in which one can shift paradigms in endeavouring to remove "the barriers that divide us" (p.194), and in creating a more habitable and compassionate world.

3.3.1 Implementation of legislative changes in corporate practice

Having highlighted the focus within the contemporary corporate world on the customer and a relationship economy, a closer examination of the implementation of the earlier-described diversity-related legislative changes in current corporate practice revealed the following trends in business both locally and worldwide: In the USA, Barbian (2003) has noted that diversity awareness programs are widespread and "gathering strength as an essential business practice," and that "75% of Fortune 500 companies have diversity efforts in place" (p.44), mostly geared towards awareness of incorporating employees and customer-related race and gender issues, together with accommodations for individuals with physical disabilities. Large companies such as Australian-based Franklins (2001) (a national supermarket chain) developed a disability awareness program based on a 2.5 hour training program "dealing with athletes with a disability" that was, according to B. McGrath (personal communication, May 13, 2004) originally developed for volunteer and paid staff working in the Olympic and Paralympics Village of the 2000 Olympic games. This aimed at making them more comfortable in dealing with people with disability. Franklins adopted and modified this program into a 3.5 hour program, Franklins disability awareness in a retail environment training manual (2001), initially developed for managers, but ultimately planning to implement it with all "customer facing staff who provide services to people with disability on a daily basis" (B. McGrath, personal communication, May 13, 2004). The program comprises a number of activities for small groups to consider surrounding a range of issues related to the Australian Disability Discrimination Act; their own experiences with disability; and some basic procedures to offer assistance to customers with a range of disabilities.

The incentives given to businesses to accommodate diversity by both private consultancies, as well as Governmental agencies worldwide, relates to encouraging them to comply with their country's disability legislation, as well as to be aware of the numbers of customers out there with disability, and the potential buying power and disposable income within that sector of the market (Australia: Commonwealth disability strategy, retrieved April 26, 2004 from http://www.facs.gov.au/disability/cds/cds/cds_index.htm; British Disability Rights Commission, retrieved April 26, 2004 from www.drc.gov.uk); Canadian Human Rights Commission, retrieved April 28, 2004 from http://www.chrc-ccdp.ca/discrimination/default-en.asp; Coleman, 2002; DPSA, retrieved April 23 2004 from http://www.dpsa.org.za/documents_pocketguide.htm; Katz,1998; Richards & Richards, 2003; South African Federal Council on Disability (D.A. Howitson, personal communication, May 3, 2004); Wilkerson, 2001). Prager (1999) has likewise

referred to the concept of 'handicapitalism' to signify the "dawning realization that people with disabilities shouldn't be viewed as charity cases or regulatory burdens, but rather as profitable marketing targets."

Roosevelt Thomas (with Woodruff), (1999a, 1999b) is recognized as one of the pioneers of the application of diversity awareness principles in practice, through his establishment of the American Institute of Managing Diversity in 1984. His training programs make extensive use of his fable, the Giraffe and the Elephant (Roosevelt Thomas (with Woodruff), 1999c) (*Appendix 22*) which relates the story about a giraffe and an elephant struggling to share a workshop. It captures with simplicity a number of issues regarding diversity awareness around which businesses can develop both awareness and skills. Consultancies such as Washington-based W.C. Duke Associates provide training modules to business concerning disability etiquette for all employees interacting with colleagues with different kinds of disabilities; attitudes towards the person; physical accommodations; as well as for front-line employees and management coming into contact with customers (C. Duke, personal communication, May 5, 2004; Duke, retrieved April 23, 2004 from http://www.wcduke.com/programexp.html).Wilkerson (2001) refers to increasing numbers of companies in the Ontario, Canada business sector with inclusive policies in place, and he strongly advocates the need for executives within organizations to reduce discrimination and educate their employees about diversity. Wilkerson (2001) focuses on two Canadian companies (UPS and AmEx) that have their managers undergo "immersion training" working with non-profit organizations for 4 week blocks of time, learning to deal with "the same issues that some of our employees deal with on a daily basis" (p.4). Codrington (2004) has likewise advocated the benefit of applying principles in business practice that are used in non-profit volunteer-based organizations, where managers learn the concept of service towards their employees. M. Boon (personal communication, April 12, 2005) in his South African-based company the Vulindlela Network, launched a powerful program of personal transformation (Vuka) in 2000, where he works with corporate groups, and through the process of immersion aims to get them to deal with issues concerning diversity, racism, gender and cultural differences.

3.3.2 *Disability issues*

In spite of these diversity-awareness trends that are reportedly becoming an increasing part of the corporate culture and training focus in contemporary South Africa specifically, the reality, according to Silver and Koopman (2000), is that very few companies in South Africa have

seriously addressed the issues of integration of individuals with a disability in the workplace, or of transforming their company values to becoming a role model, through modifying the attitudes of their employees to individuals with a disability. Oakley-Smith (2004) has likewise expressed the opinion that South African employment equity (EE) targets are not being met by companies, and has stated that "there is a lack of commitment from senior leadership and management, often derived from a failure to grasp that EE is a business imperative, a strategy that can add real value and continued value to the bottom line" (p.8).

The same omissions have similarly been noted from the rehabilitation perspective where Simmons-Mackie et al. (in press), refer to how in spite of the increasing recognition given worldwide by government and accreditation bodies to issues of access for individuals with disability, resulting in legislative changes, guidelines and mandates, "communicative access has not been widely championed in the same way as physical access". They add that communicative access is "narrowly defined in terms of technology for the hearing impaired rather than defined in terms of broader issues including language barriers" (Simmons-Mackie et al., in press). In order to facilitate long-term and sustainable changes in communicative access, they, together with many other authorities in the field of rehabilitation, propose changes within societal systems such as healthcare and other realms, in order to reduce barriers and enhance participation and satisfaction (Alant, 2005b; Alant & Lloyd, 2005; Cruice et al., 2003; ICF (WHO, 2001); Parr et al., 1997; Sarno, 2001, 2004; Simmons-Mackie et al., in press). Cottrell (2001, p.102) likewise strongly advocates the "need for wide-ranging and increased training and awareness-raising among the general public about communication disability" (p.102). Similarly, Togher et al. (1996, 1997b; 2004) have emphasized the need to improve communication in Governmental agencies and private organizations dealing directly with the general public, through training programs "for the uninformed sections of the community" (1997b, p.502) aimed at enhancing interactions when dealing with customers with a TBI.

The model of a barrier-free and facilitative environment as proposed by the conceptual framework of the ICF (WHO, 2001) encourages individuals with disabilities to participate in society at a deeper level (Alant, 2005a; Seligman, 2002). Individuals with neurogenic-based communication disorders have likewise been shown to need a more facilitative environment in order to thrive as empowered human beings (Threats, 2002). This concept of participation can be conceptually extended into the corporate sector (in South Africa specifically), which is reportedly poised for a more humane relationship economy (Codrington, 2003a, 2003b, 2003c, 2003d), together with an Ubuntu management approach (Bhengu, 1996; Mbigi & Maree, 1995).

In spite of this, and the legislation in place aiming not only to upgrade employees' skills, as well as to integrate individuals with disability in the workplace, Silver and Koopman's observation (2000) that this has been largely ignored to date, represents a disappointing indictment of our society. Given this situation, together with an apparent absence of training programs which deal particularly with individuals with a TBI in the retail environment specifically, the current research has targeted the supermarket environment as a system integral to our everyday lives that requires social change and accommodations in order to enable sales assistants to become facilitators, while customers with a TBI participate more fully and function more independently in the shopping process.

3.3.3 *Principles in the development of a training session for sales assistants dealing with customers with TBI*

The training session developed for the main study incorporated principles and methods used for adult learners, who come to the process of learning with a rich pre-existing background of knowledge and experience that needs acknowledgement, and is the foundation on which new information is built (Caffarella, 1994). Extensive use was made of video material reflecting simulations of daily in-store scenarios that were produced during the pre-experimental phase of the study (Table 4.1). Silberman (1990) has emphasized educating rather than training the adult learner, using meaningful content and in so doing, to "expose participants to new ways of thinking, feeling and acting and to allow them to integrate these ways into their being" (p.34). Mintzberg (2004) likewise advocates exposing learners to realistic and customized problems to solve, facilitating the reframing of assumptions and "the ability to see their world in different and deeper ways" (p.378). He refers to this process of education as "experienced reflection" (Mintzberg, 2004, p.264), encompassing the process of integrating and adapting new ideas and insights into established beliefs, which then impact on behaviour back in the workplace.

The current training session also included the use of collaboration with an individual with a TBI as a research assistant, in order to expose the sales assistants in the experimental group to his personal perspective, to help to generate knowledge and bring about personal and social change (Krogh & Lindsay, 1999; Mertens, 1998; Oliver, 1992; Sohlberg et al., 1998). This form of strongly experiential training has likewise been advocated by Silberman (1990) where "learning flows not from didactic presentations, but from what participants discover for themselves as a result of powerful experiences that the trainer has designed for them" (p.155).

A participation-based training format was used to incorporate principles advocated by Mayo and DuBois (1987a, 1987b, 1987c, 1987d, 1987e, 1987f, 1987g), who include the centrality of participation by the participant as the first of seventeen important principles pertaining to training. They stress the importance of participants doing something, rather than simply having information presented to them, adding how "individual involvement is important when changes in attitude are desired" (1987f, p.16). Active participation in a group format has likewise been advocated by Bornman, 2001; Franklin's disability awareness in a retail environment training manual (2001); Kagan and Shumway (2003a); Mintzberg (2004); Silberman (1990); Togher et al. (2004) and Wastell (1995). Slavin (1996) extends this concept by referring to the positive effects of cooperative learning, where participants work in mixed ability groups, sharing and debating concepts among one another, letting go of misconceptions, considering other solutions for discussion at the end of a period with the group as a whole, which he notes as being a critical component of cooperative learning, resulting in "cognitive restructuring" for the participant (Slavin, 1996, p.50).

Specific strategies that have been advocated for effective cooperative learning include the careful structuring of interaction among participants in small groups, the use of strategies such as question-generation, as well as summarization of topics discussed with the group (Silberman, 1990; Slavin,1996). Napier and Gershenfeld (1983), and Silberman (1990) have stated that the first thirty minutes of training are the most crucial for setting the tone for the entire training, where participants "decide how they perceive you, what role they expect to play during the training program, and what they intend to accomplish during the course" (Silberman, 1990, p.198). It is during this period that they stress the need to create group motivation and interest in the training topic, primarily through the opening exercise. Silberman (1990) also advocates tapping the knowledge of the group about the topic to be trained before training commences, and suggests returning to the same questions later to determine the learning that has occurred. He furthermore advocates the need for the training to be well-paced and sequenced, with a good mix of activities both to maintain group interest and teach new skills. He adds that training sequences should be closed, with a discussion by participants of the implications of that section of content. Silberman (1990) refers to a growth in confidence as individuals master exercises at increasing levels of difficulty. The use of relevant video material is likewise suggested together with key questions to help focus the groups' attention while observing the videos. Silberman (1990) notes how "concluding a training program can be as difficult as beginning one" (p.184), and the importance at this stage of internalizing the discoveries participants have made through making connections to skills previously learned, thereby growing in confidence.

The formulation of a training session combining the above principles and strategies may create the "possibility" (Zander & Zander, 2000) for "experienced reflection" (Mintzberg, 2004, p.264), with a concomitant increase in both levels of confidence and skill.

Figure 3.1 below represents a visual representation of the theoretical rationale for the study, reflecting the needs (described in chapters 2 and 3) in both the rehabilitation and corporate contexts for communication partner training programs to remove barriers for individuals with a TBI, and their communication partners.

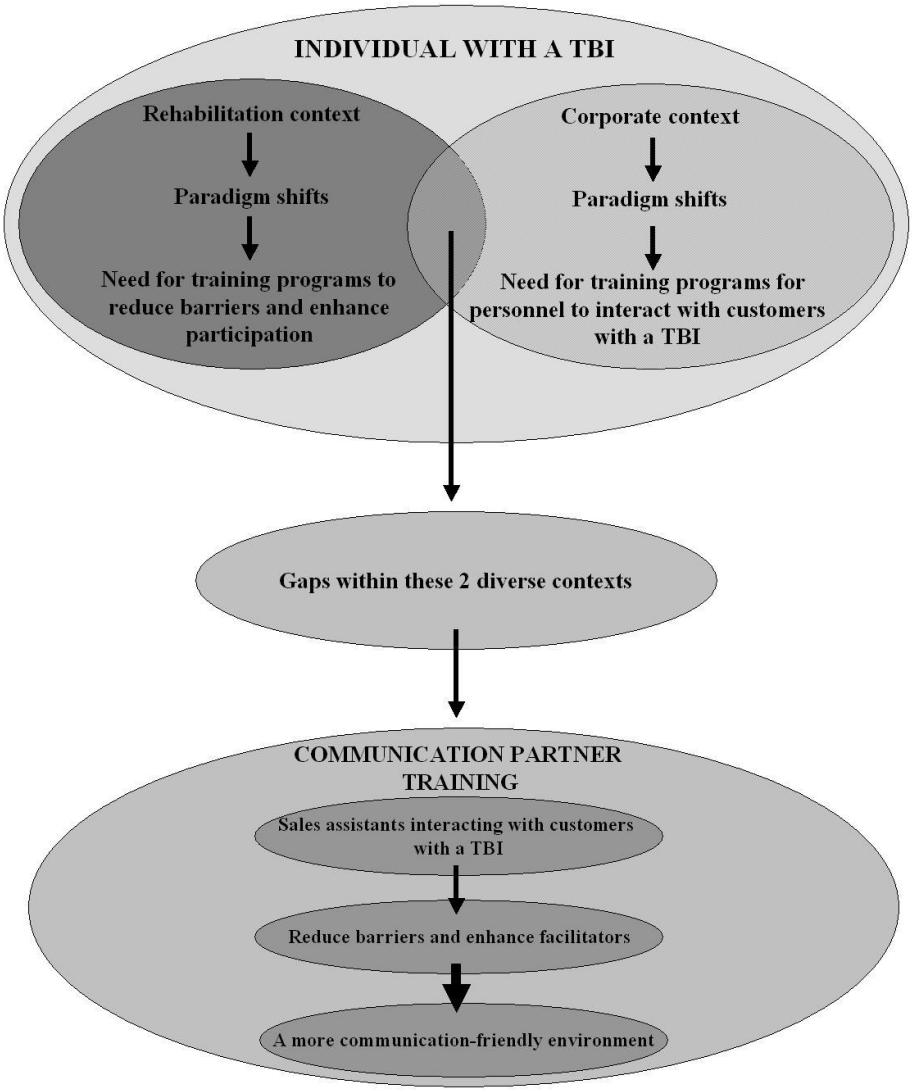

Figure 3.1 Visual representation of the theoretical rationale for the study.

3.4 Summary

In accordance with the above recommendations proposed by among others, Cottrell (2001); Simmons-Mackie et al.(in press); and Togher et al.(2004), together with the corporate sector being poised for a more humane relationship economy (Codrington, 2003a, 2003b, 2003c, 2003d) in an environment lacking in training programs aimed at dealing with individuals with a TBI specifically, the current research has targeted the retail supermarket environment as a system integral to our everyday lives that requires social change and accommodations in order to enable customers with a TBI to participate more fully, and thereby function more independently as a consumer. The chapter ends with a visual representation of the theoretical rationale for the study (Figure 3.1), reflecting the needs (described in chapters 2 and 3) in both the rehabilitation and corporate contexts for communication partner training programs to remove barriers for individuals with a TBI, and their communication partners.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 Introduction

The previous chapters described the theoretical framework underlying the main study and provided an overview of the relevant literature examining the transformations within both the rehabilitation and the corporate domains. With specific reference to individuals with a TBI, the need was highlighted for the development of training programs within the corporate sector, in order to remove barriers and enhance participation. In this chapter, attention is given to the research methodology used in the study. Firstly, the aims and objectives of the research are identified, followed by a discussion of the research design used. The preparatory phases laying the foundation for the main study are then presented, followed by the pre-experimental phase, the pilot study with its results and recommendations, and thereafter the experimental research phase of the main study. Finally, a description of the participants, data collection procedures and data analysis used in the main study follows.

4.2 Methodology

4.2.1 Main Research Aim

To investigate the ability of sales assistants to identify barriers to, and facilitators of interaction involving customers with a cognitive-communication disorder following a TBI, and whether training impacts on this ability.

4.2.2 Sub-aims

Three objectives delineate the means whereby the research aim was realized, namely:

i) To develop and administer two questionnaires (on two different occasions) in order to determine the confidence and skill of the sales assistants in identifying the barriers to, and facilitators of interactions involving customers with a cognitive-communication disorder following a TBI;

ii) To develop and conduct a once-off training session in order to increase the confidence and skill of sales assistants in identifying the barriers to, and facilitators of such interactions; and

iii) To analyze the inter-and-intra-group results in order to examine and compare the similarities and differences between the experimental and control groups' performance on the confidence and skill constructs of pre-and-post questionnaires 1 and 2.

4.3 Research design

The present study adopted a control group design (McMillan & Schumacher, 2001). Stores in the Northern region of a large South African retail supermarket chain were randomly assigned to the experimental and control groups. This design was selected as best demonstrating the changes (after a once-off training session) in the sales assistants' ability to more confidently interpret diverse behaviours, and to enhance their understanding of the skills necessary to facilitate interacting with customers with a TBI.

4.3.1 Research phases

The current research (outlined in Table 4.1) comprises 3 major sections: Section 1 is the preparatory phase to the study; Section 2 the pre-experimental phase, including the pilot study; and Section 3 the experimental phase of the main study.

Table 4.1 Research phases

SECTION 1: PREPARATORY PHASES
Step 1: ***April 2003:*** Obtaining support to carry out the pre-experimental research and main study with the Gauteng and Northern region stores respectively of a large South African retail supermarket chain store; and **Step 2**: ***May 2003:*** Sampling of questions to be used in focus groups in the pre-experimental phase of the study.
SECTION 2: PRE-EXPERIMENTAL PHASE
Steps 1 - 3: ***Needs analysis through focus groups, and an expert questionnaire:*** **Step 1:** ***June 2003:*** Two focus groups with customers with a TBI. **Step 2:** ***June 2003*****:** One focus group with sales assistants from Gauteng region of a large retail supermarket chain store. **Step 3:** ***June 2003:*** Expert questionnaire determining awareness of experts working locally and internationally with individuals with TBI, regarding barriers to, and facilitators of interactions involving sales assistants and customers with a TBI.
Steps 4-6 : ***Development of material for use in the Main study:*** **Step 4**: ***June – October 2003:*** Information gained to assist in the identification and production of video scenarios to be used for pre-and-post questionnaire administration, as well as for training material. **Step 5:** ***August 2003 – March 2005:*** The development and refinement of two questionnaires for pre-and-post questionnaire administration. **Step 6**: ***February 2003 – March 2005:*** The development and refinement of a training session for use in the main study. **Step 7:** ***March 2005:*** **Pilot study.**
SECTION 3: MAIN STUDY/ EXPERIMENTAL PHASE
Session 1: ***March 2005:*** Pre-questionnaire administration to the experimental and control groups – to determine their confidence and skill in identifying barriers to, and facilitators of sales interactions involving customers with a TBI.
Session 2: ***April 2005:*** 4 hour training session for the experimental group assisted by a research assistant with a TBI.
Session 3: ***April 2005:*** Post-questionnaire administration to the experimental and control groups – to determine their confidence and skill in identifying barriers to, and facilitators of sales interactions involving customers with a TBI.
Courtesy training session for the control group.

The phases will be described in detail in Sections 4.3.1.1; 4.3.1.2; and 4.4.

4.3.1.1 Section 1: Preparatory phases for the main study

Section 1 consists of two steps in preparation for the pre-experimental phase of the study

i) Section 1: Step 1:

In April 2003, the researcher approached the General Manager (GM) of the Northern Region of a large South African retail supermarket chain store with a proposal to obtain support to carry out the main study within the stores in his region, and for all pre-experimental work to be carried out in an adjacent region, the Gauteng region of the same chain. This retail company was approached in view of the widely held perception that as a company it has always been an innovative, socially responsible company, proactive in its responsibility towards both its customers and its personnel (Ackerman 2002; 2005). Support was granted by the GM of the Northern region (via a letter of intention which was given to the researcher), together with the commitment to fund the production of all video scenarios by a professional video company for use in the pre-and-post questionnaire administration, and training session of the main study.

ii) Section 1: Step 2:

In May 2003, the researcher formulated a list of 10 draft questions to be used with various focus groups in the pre-experimental phase of the study. These questions reflected the combined input of the following sources: Cottrell (2001); Supported conversation for aphasic adults: Enhancing communicative access (Aphasia Centre and Lifetime Productions, 1996); Krueger (1988); Krueger and Casey (2000). The questions were sampled with the PhD (CAAC) group, as well as with 2 Clinical Psychologists who had extensive experience in the field of adult brain injury, and relevant modifications were made.

4.3.1.2 Section 2: Pre-experimental phase

Section 2 comprises seven steps. *Steps 1 - 3* are aimed at identifying awareness, and perspectives held by a number of different sources of the barriers to, and facilitators of interactions between sales assistants and customers with a TBI during sales transactions. By means of interviewing purposefully-sampled groups of individuals (Bornman, 2001; Brotherson, 1994; Krueger, 1988; Krueger & Casey, 2000; McMillan & Schumacher, 2001; Sohlberg et al., 1998), data and insights were gained that would normally be less attainable, and that would assist in understanding the experience of the barriers and facilitators for customers with a TBI as well as sales assistants within the shopping environment specifically. *Steps 4 - 6* respectively describe the development and process of refinement of video scenario material; the 2 pre-and-post questionnaires, together with the item analysis used to formulate the confidence and skill constructs; and a once-off 4 hour long training session to be used in the main study.

i) Step 1: Focus groups with individuals with a TBI

Step1 aimed at determining perspectives regarding the shopping experience expressed by 2 focus groups of individuals with a TBI. A summary of these focus groups is presented in Table 4.2.

Table 4.2 Focus groups with individuals with a TBI

CATEGORY	DESCRIPTION
Participants	Group members in the conversation group for individuals with a TBI (University of Pretoria) (focus group 1); as well as at Headway (a support group for individuals with a TBI) (focus group 2), were approached to participate voluntarily in a discussion on the shopping experience. The criterion for participation was the willingness to share ideas related to this topic. During June 2003, on 2 different occasions, six members from each TBI group met with the researcher (assisted by a final year SLP student). All participants were familiar with one another so that the experience was informal and non-threatening.
Aims	To determine the perceptions of individuals with a TBI regarding the experience of shopping - including dealing with sales assistants and their reactions. The following five open-ended questions were used for discussion: i) Tell me about your shopping experiences. ii) What are the difficulties you experience when shopping? iii) How do you normally cope with these difficulties? Do you do anything special to help you shop more successfully? iv) Whom do you ask to help you? v) Do you find sales assistants helpful or uncomfortable when serving you? Why?
Method	The researcher led the respective focus groups in a semi-structured discussion of the open – ended questions (Frey & Fontana, 1993). Participants were assured of their anonymity, and encouraged to share ideas openly, with the understanding that there were no right or wrong answers. Participants were informed that they were being tape recorded in order to facilitate accurate transcription by the researcher, and were asked to sign a letter of consent, and complete a short biographical background form before commencing with the discussion (*Appendix 2A & 2B*). Member checks were included to ensure the trustworthiness of the information, whereby the facilitator summarized the group input at the end of each of the five questions. Participants were asked to confirm whether they agreed, disagreed, or if any important information had been overlooked by the researcher (Bornman, 2001; Hoffart, 1991; Krueger & Casey, 2000). Both focus groups lasted 1 hour. Immediately after the focus group sessions, the researcher and her assistant spent some time debriefing and sharing their respective interpretations in order to enhance the trustworthiness of the data (Bornman, 2001; Brotherson, 1994; Peshkin, 1993). Brotherson and Goldstein (1992), and Kimchi, Polivka and Stevenson (1991) have likewise advocated debriefing as an important aspect of investigator triangulation to increase the credibility of the data obtained. Verbatim transcriptions of these 2 focus groups were made.
Analysis	The researcher formulated a summary of broad issues raised, together with identifying the specific range of problems perceived by both focus groups when shopping. These were then confirmed in discussion with the research assistant, facilitating analytic stability (Bornman, 2001; Brotherson, 1994; Brotherson & Goldstein, 1992), and credibility of data (Krueger, 1988; Krueger & Casey, 2000). It was necessary to review the complete text frequently in order to contextualize and interpret the data appropriately (Bornman, 2001).

Table 4.2 (continued). Focus groups with individuals with a TBI

CATEGORY	DESCRIPTION
Results	A summary of the barriers highlighted by these two focus groups is provided in *Appendix 3.* Broad observations noted by both focus group participants included: ▪ A range of opinions re the shopping experience – from feeling uncomfortable and misunderstood, to it being considered a positive experience. ▪ Many participants expressed the experience of shopping being a social outing, reducing one's sense of isolation. ▪ Higher level participants verbalized how successfully hiding their subtle difficulties enabled them to be treated as a "normal" person. In contrast, those participants using a wheelchair or walker and with speech difficulties, verbalized the stigma of being disabled when shopping – where other shoppers and sales assistants are uninformed about TBI, and don't know how to assist or talk to them. ▪ Volunteers from both focus groups were asked to put their names on a list to participate later in the year in videoing in various branches in the Gauteng region of the supermarket chain, in order to assist the researcher to gather material for the main study.
Implications	▪ Consensus amongst all focus group participants regarding the need for education of sales assistants in order to make the shopping experience a more positive one for all. ▪ Participants verbalized how training would make shopping a more communication-friendly environment where: sales assistants could assist customers with greater awareness and respect, and customers with disability could shop more successfully and independently. ▪ volunteers were identified to be contacted at a later stage by the researcher to be ▪ "customers" in in-store videos. These individuals were English speaking and were selected based on their motivation to participate, having verbalized various difficulties and frustrations with shopping. In addition, the selected customers with a TBI were required to exhibit a range of possible difficulties including physical /walking difficulties, as well as cognitive-communication difficulties (possibly compounded by dysarthria).

ii) *Step 2: Focus group with sales assistants*

Step 2 aimed at determining perceptions regarding the shopping experience expressed by a focus group of sales assistants in a store in the Gauteng region of the participating supermarket chain (different from the Northern region where the main study took place). A summary of this focus group is presented in Table 4.3.

Table 4.3 Focus group with sales assistants from a retail store in the Gauteng region

CATEGORY	DESCRIPTION
Participants	A retail supermarket store in the Gauteng Region was approached by the Consumer Affairs co-ordinator of that region to provide 6 sales assistants (1 Customer Service Manager (CSM) and 5 Deli/ Bakery sales assistants) to form a focus group for gathering information regarding their ability to interact with customers with a brain injury. Six sales assistants met with the researcher (assisted by a final year SLP student) on one occasion in June 2003. They were all familiar with one another so that the experience was informal and non-threatening.
Aims	To determine sales assistants' ability to identify potential barriers and facilitators when serving a customer with a communication disorder. Part of an instructional video: *Supported conversation for aphasic adults: Enhancing communicative access* (1996) was shown to the group (with permission obtained from A.Kagan (personal communication, April 15, 2003), and the following 5 open-ended questions were then posed to the group for discussion: i) How do you think a customer like Gerry would manage with shopping? ii) What difficulties do you think he might experience as a customer? iii) How could he cope with these difficulties? iv) Whom could he ask for help with his shopping? v) What could you do to make shopping easier for Gerry?
Method	The researcher led the focus group in a semi-structured discussion of the questions (Frey & Fontana, 1993). Participants were assured of their anonymity, encouraged to share ideas openly, with the understanding that there were no right or wrong answers, and were informed that they were being tape recorded in order to facilitate accurate transcription by the researcher. In addition, they were asked to sign a letter of consent, and complete a short biographical background form before commencing with the discussion (*Appendix 4A and 4B*) Member checks were included to ensure the trustworthiness of the information, whereby the facilitator summarized the group input at the end of each of the 5 questions. Participants were asked to confirm whether they agreed, disagreed, or if any important information had been overlooked by the facilitator (Bornman, 2001; Hoffart, 1991; Krueger & Casey, 2000). The focus group lasted 1 hour.
Method	Immediately after the focus group sessions, the researcher and her assistant spent some time debriefing and sharing their respective interpretations in order to enhance the trustworthiness of the data (Bornman, 2001; Brotherson, 1994, Peshkin, 1993). Verbatim transcriptions of this focus group were made.
Analysis	The researcher formulated a summary of broad issues raised by the group which were then confirmed in discussion with the research assistant, thereby facilitating analytic stability (Bornman, 2001; Brotherson, 1994; Brotherson & Goldstein, 1992), and the credibility of data (Krueger, 1988; Krueger & Casey, 2000).
Results	Broad observations noted by focus group participants included: ▪ A tendency to classify anyone with a speech problem as being "deaf and dumb" who should either use some kind of sign language, or bring in a "note" about their shopping needs. ▪ A willingness to assist this kind of customer as patiently as possible – including doing their shopping for them, particularly if they bring along a shopping list. ▪ An awareness of regular customers in their store who come in their wheelchairs, or are "deaf and dumb" and are made to feel comfortable in the store. ▪ An uncertainty of what to do in order to serve a customer who cannot be understood so well. ▪ Verbalizing the need for more training in this area.
Implications	Participants verbalized the need for more training in dealing with customers with speech difficulties.

iii) *Step 3: Expert questionnaire*

Step 3 comprised a questionnaire e-mailed to a group of 14 local and international experts having extensive experience of working with adults with brain injury. A summary of this input is presented in Table 4.4.

Table 4.4 Input from Expert Questionnaire

Category	Description
Participants	8 Speech-Language Therapists, 3 Neuropsychologists and 3 Occupational Therapists completed a questionnaire e-mailed to them by the researcher. All are experts in the field of adult brain injury, having extensive experience working with individuals with acquired brain injury in particular (*Appendix 5A and 5B*).
Aims	Questionnaire aimed to have experts identify the issues they perceive as potential barriers and facilitators for both the customer when shopping, and the sales assistant serving a customer with a TBI. Suggestions for training were also requested (*Appendix 5B*).
Method	The researcher e-mailed respondents during May 2003 requesting their willingness to participate in an electronic questionnaire to be e-mailed to them during June 2003 (*Appendix 5A*). All participants responded positively to completing the questionnaire. In June 2003, the questionnaire was e-mailed to the same group of respondents, all of whom replied within a 10 day period (*Appendix 5B*).
Analysis	All questionnaires were examined by the researcher, and trends were noted in the answers to each question.

Table 4.4 (continued). Input from Expert Questionnaire

Category	Description
Results	Trends reflected in the answers to the questions included: *Problem types*: ▪ Impulsive buying. ▪ Difficulty dealing with pressure. ▪ Over-familiarity with sales person, other unusual behaviours – temper tantrums, silliness; impatience and outbursts in checkout lines. ▪ Difficulty reading signs and labels. ▪ Difficulty reaching certain items high up on shelves due to physical limitations. ▪ Inefficient shopping – difficulty finding items. ▪ Distractible in a busy environment. ▪ Difficulty asking relevant questions clearly and concisely. ▪ Difficulty in calculating money and change. ▪ Depending on extent of motor speech problems – difficulty making themselves understood. *Sales assistant reactions:* ▪ A range including: discomfort; annoyance; anxiety; empathy; avoidance. ▪ May speak to the customer in a demeaning manner. ▪ May refer everything to the other person accompanying the customer with a TBI. *Suggested training procedures:* ▪ Knowledge a powerful tool. Start with information about TBI. ▪ Expose the person behind the disability by revealing their competence. Where appropriate, train with supported conversation skills to achieve this. Where appropriate, train the person with the disability to deal with this situation – a partnership. ▪ Make videos of various shopping scenarios (even simulated). Constructively analyze the scenario and create model scripts for the individual with a TBI, and the sales assistant. ▪ Valuable to increase sales person's awareness - teach some practical tips such as using a paper and pen with some customers who might be difficult to understand. ▪ Train skills – knowing how to talk to a customer who cannot speak so well. Let the customer know that it's hard to understand them, but they can take their time; move the customer off into a quieter area to deal more efficiently and satisfactorily with their needs. ▪ Training would be valuable to change attitudes in the sales assistant, and to make the customer feel more supported. *Adjustments needed:* ▪ Better signage around the store. ▪ Training one particular sales assistant to be the expert in dealing with such customers. ▪ Let public know store is accessible and disability-friendly. Advertise the name of the contact person in the store in the event of difficulties arising. *Value of a training session:* ▪ Customers treated more respectfully. ▪ More tolerant and competent if more aware. ▪ Sales assistants feel more competent and confident. ▪ Store identified as a socially responsible store. .
Implications	Consensus amongst all respondents regarding the potential (within the retail encounter) of a variety of difficulties for both the customer with a TBI and the sales assistant. Strong support expressed for the value of training to make the retail experience a more accessible and comfortable one for all, thus providing additional evidence in support of the main study.

Section 2: steps 4 - 6

Steps 4 - 6 represent the steps taken in the development and refinement of the following material required for the main study – namely:

Step 4: development and refinement of video scenarios,

Step 5: development and refinement of 2 pre-and-post questionnaires, and

Step 6: development and refinement of a training session.

These are described below.

iv) Step 4: Development and refinement of video scenarios

In the endeavour to develop and refine a set of realistic video scenarios for use in the main study, the researcher reviewed the transcribed material obtained from the 3 focus groups, together with the input from the expert questionnaires (described in *steps 1-3* above) to identify common potentially difficult themes for customers with a TBI, as well as for the sales assistants serving them. These themes were used to formulate 5 scenarios (*Appendixes 6 and 7*) to be videotaped using 6 and 4 volunteers with a TBI as "customers" in several identified supermarket stores in the Gauteng region during 2 in-store videotaping days in July and October 2003 respectively. Table 4.5 below summarizes the steps involved in this process.

Table 4.5 Steps in the development and refinement of video scenarios

IN-STORE VIDEO	METHOD	OUTCOME
First videotaping session: July 2003: *Advance Planning day 1*	a) Before videotaping took place, the researcher met with the professional videographer to plan the implementation of the trial videoing, in order to make the transaction as realistic as possible, and to reduce possible intrusion of the video camera on the sales transaction. b) The videographer accompanied the researcher in walking around the 2 designated stores in the Gauteng region, to determine how best to videotape within a busy retail context. c) Met with the relevant store managers and shop stewards to discuss the plans for videotaping.	Plan to hire hidden (spy) cameras (to complement use of conventional video cameras).

Table 4.5 (continued). Steps in the development and refinement of video scenarios

IN-STORE VIDEO	METHOD	OUTCOME
First videotaping session: 21 July 2003: 2 stores - Gauteng region.	a) The managers of the 2 designated stores asked for volunteer sales assistants to participate later that day in being videoed serving customers (to gather material for training purposes). The "customers" were not identified for them. Information was read to them about the videotaping proceedings (provided to them in advance by the researcher) (*Appendix 8*). b) All 6 "customers" with a TBI completed a consent to participate form in advance of the videotaping, and were each given a very broad outline of the anticipated scenario before being asked to proceed with it (*Appendix 6*). Video scenarios, while planned, were not scripted in detail in advance, so that the individual "customer" with a TBI was encouraged to use their own initiative in dealing with the unfolding demands of the interaction with the sales assistant.	Participants with a TBI were videotaped in 5 different scenarios in various parts of the 2 stores by 2 professional videographers over a full day period (while the stores were fully operational). Both visible as well as hidden cameras were used. The latter were clipped onto the "customer's" cap, jersey or handbag. At the end of the day, all participants with a TBI expressed great enthusiasm for the experience, and the motivation to participate in further videoing endeavours. The videographers likewise enjoyed the day, in spite of enormous challenges to obtain suitable video footage.
Transcription of video footage obtained on first in-store videotaping day	The researcher transcribed the video footage, for rough editing by the videographer in order to produce a draft videotape (with 5 video scenarios) for discussion with the PhD (CAAC) group during an Onsite week in August 2003.	Constructive input was given to modify future in-store video plans in the following ways: * The need to video more focused interactions in specific parts of the stores (rather than wandering around the stores); * Suggestion to use visible rather than hidden cameras, as the sound quality and visual material obtained was neither visually stable, nor good enough for use in the current research; *Specific requirements to be asked of sales assistants in terms of their having to try to be as realistic as possible in spite of being videotaped; * Discussion around which "customers" with a TBI to use again in further videoing endeavours; and the need to recruit additional "customers" to stand in the line and attempt to add pressure on the interaction where appropriate.
Second videotaping session: October 2003: *Advance Planning day 1*	a) Prior to the second in-store video session, the researcher met with the store managers and shop stewards of another 3 designated stores in the Gauteng region. A rationale was presented for obtaining in-store video material and the outcome of material obtained during the July in-store videoing was shared with them. b) Managers were asked to supply items from the store to be returned by the "customer" with a TBI, and to identify sales assistants who would be willing to be videoed in the interactions. c) Participating sales assistants were to be informed that they would be videoed in order to gather material for training purposes. d) Met with the videographer to plan the in-store scenarios to be videotaped on the 14th October, 2003, and specific suggestions were given to facilitate optimum video footage.	Each of the 3 participating stores selected a suitable date during October for in-store videoing to take place. The decision was taken to use visible videos with additional microphones clipped onto the "customer's"clothing (rather than hidden cameras), in order to optimize the audio and visual quality of the videos.

Table 4.5 (continued). Steps in the development and refinement of video scenarios

IN-STORE VIDEO	METHOD	OUTCOME
Second videotaping session: 14 October 2003: 1 store-Gauteng region.	a) Before videoing commenced, relevant sales assistants were identified by the store manager to participate willingly in the videoing. In addition, the manager, assistant manager, and CSM agreed to be available in the event of needing a manager to be called to assist during the videotaped sales transaction. The "customers" were not introduced to them in advance of being videoed. b) The store manager also provided the researcher with appropriate items to be returned during the one scenario, and read the selected sales assistants some information about the videotaping (provided to him by the researcher before videotaping commenced) (*Appendix 8*). c) "Customers" with a TBI were given a very broad outline of each of the scenarios before they entered the store accompanied by the 2 videographers (*Appendix 7*). They were asked by the researcher to go to a particular area of the store and to follow a particular scenario. Video scenarios while planned were not scripted in detail in advance, so that the individual "customer" with a TBI was encouraged to use their own initiative in dealing with the unfolding demands of the interaction with the sales assistant. d) In addition, the researcher recruited 2 non-disabled "customers" who were told in advance that they would be asked to stand in the line behind the individual with a TBI at a specific time. The individuals with a TBI did not know who they were, nor of the researcher's intention to place them in the line as and when deemed necessary	All sales assistants expressed enthusiasm to participate in the in-store videoing. 2 videographers videoed 4 participants with a TBI as "customers" (using visible cameras, with a small microphone clipped onto their shirts) in a single store in the Gauteng region over a morning period, while the store was fully operational. The videoing was more organized and efficient than in the first videotaping session (July 2003), with the result that only 5 of the 10 planned video scenarios were videoed (*Appendix 7*), and all participants enjoyed the experience. The researcher examined the 5 unedited video scenarios in depth to roughly edit them with the videographer. This video footage was considered (with further editing) to be the best approximation possible to a representative supermarket sales interaction, adequately highlighting the themes identified as universally-problematical barriers, as well as facilitators during sales transactions with various customers with a TBI, for use in the main study. All further in-store videoing plans cancelled.
Selection and editing of video scenarios to be used in pre-and-post questionnaire administration, as well as training session	7 scenarios (obtained from the first and second videotaping sessions in July and October, 2003 respectively) were selected to be finely edited for use with both the pre-and-post questionnaire administrations, and during the training session.	The scenarios selected (to be used in conjunction with the pre-and-post questionnaires 1 and 2) were considered to reflect both typical sales interactions, and also highlight the barriers to, and facilitators of interactions involving sales assistants and customers with a TBI. *Video scenario 1* (Table 4. 6) (accompanying pre-and-post questionnaire 1) actually took 21 minutes and 54 seconds from beginning to end, and once edited, took 15 minutes and 06 seconds. Further editing was considered to interfere with the scenario content that made it so typical of an interaction between a customer with a TBI and a conversation partner (*Appendix 9* provides a detailed transcription of the content of this video scenario).

Table 4.5 (continued). Steps in the development and refinement of video scenarios

IN-STORE VIDEO	METHOD	OUTCOME
		Video scenario 2 (Table 4. 6) (accompanying pre-and-post questionnaire 2) actually took 9 minutes and 12 seconds from beginning to end, and once edited, took 8 minutes and 18 seconds. (*Appendix 10* provides a detailed transcription of the content of this video scenario). *Video Scenarios 3 - 7* (Table 4.6) were used for training material during the training session of the main study. Clear instructions were provided to assist the videographer in editing all video scenarios (*Appendix 11*). Captions were added to guide the research participants by providing more information, and a Disclaimer (with wording provided by the participating company) was inserted at the beginning of the videos. Videos were produced in standard and DVD format for use by the researcher during the main study.

Table 4.6 identifies the video scenarios used in the main study:

Table 4.6 Video scenarios used for the main study

VIDEO SCENARIO	DURATION (ONCE EDITED)	TOPIC	PRE-AND-POST QUESTIONNAIRE ADMINISTRATION / TRAINING SESSION
1	15 minutes 06 seconds	Photo counter scenario: customer endeavours to purchase an 800 ASA spool.	Questionnaire 1: Pre-and-post questionnaire administration
2	8 minutes 18 seconds	Returns counter scenario: customer returns 2 expensive items without a slip.	Questionnaire 2: Pre-and-post questionnaire administration
3	8 minutes 15 seconds	Buying items with R50.00. Two customers given R50 to buy something to eat.	Training session
4	2 minutes 5 seconds	Customer with dysarthric speech requests items from the sales assistant/ manager. Helpful and intrusive strategies used by sales assistants when serving her.	Training session
5 – 7	3 minutes 24 seconds	Customer with dysarthric speech requests items from various sales assistants. Helpful and intrusive strategies used by sales assistants to serve her.	Training session

Figure 4.1 Video scenario 1: Photo counter scenario.

v) *Step 5: Development and refinement of 2 pre-and-post questionnaires*

Between August 2003 and March 2005 the researcher compiled and refined an initial set of 10 questions (based on repeated observations of the video scenarios obtained in July and October 2003) into 2 pre-and-post questionnaires that were administered during March and April 2005 during the main study (*Appendixes 12 & 13*) in conjunction with video scenarios 1 and 2 respectively (Table 4.6).

This process of ongoing development and refinement of the pre-and-post questionnaires, culminating in an item analysis of the questionnaires into skill and confidence constructs is reflected in Table 4.7 below.

Table 4.7 Steps in the development and refinement of the pre-and-post questionnaires 1 and 2

QUESTIONNAIRE CONTENT	REFINING OF QUESTIONNAIRES	OUTCOME
From an initial 10 questions (August 2003), two draft questionnaires were developed (November 2003) to more accurately tap into sales assistants' perceptions regarding 2 different sales transactions for the 2 identified video scenarios to accompany the pre-and-post questionnaire 1 and 2 administrations (questionnaire 1 in relation to video scenario 1; and questionnaire 2 in relation to video scenario 2). Each questionnaire had 19 questions with a range of 2-6 correct options, and a total of 75 choices for the respondent to choose from. A 5-point Likert Scale was used for each of the options, ranging from *Strongly Agree* to *Strongly Disagree.*	• Review of literature (Bedrosian et al.,2003; Cottrell, 2001; Cummings, Stewart & Hulley, 2001; Mayo & DuBois, 1987g; Mertens, 1998; Worrall, McCooey, Davidson, Larkins, & Hickson, 2002; and the framework of the Activities, Participation and Environmental constructs of the ICF (WHO, 2001)); • Input from focus groups of individuals with a TBI, sales assistants and experts (*Steps 1-3*); • Input from the PhD (CAAC) group; • Ongoing personal communication with colleagues locally, and international experts including: Cottrell (2003); Kagan (2004); Sohlberg (2004);Threats (2003); Togher (2004) (*Appendix 1C*); • Discussion with relevant management of the chain store participating in the current study; and • Frequent discussion and guidance from a statistician.	Constructive input was given, with T.Threats advising that as the sales assistants knew they were being videotaped, it would "in some ways be a role playing situation – not really living it." He therefore urged the researcher to develop questions with the sales assistants looking at how they would also do in this simulated situation (personal communication, September 2, 2003) (*Appendix 1C*).
	Discussed questionnaire content, as well as the appropriateness of language used for the sections on: Instructions for Participants; Letter of Consent to Participate before completing the questionnaire; and Biographical Information Form (*Appendices 14, 15 & 16* respectively), with the statistician, the Consumer Affairs Co-ordinator, and the Frontline Training Co-ordinator of the Northern region stores of the supermarket participating in the study, as well as the PhD (CAAC) group of students. January – March 2005: Ongoing discussion with statistician and PhD (CAAC) group, leading to further refinement of the questionnaires.	Reduction of questions to 26 questions on pre-and-post questionnaire 1, and 25 questions on pre-and-post questionnaire 2, and to using a 3 point Likert rating scale for each item on both questionnaires. Wording of Instructions for the Participants; Letter of Consent to Participate; and Biographical Information Form considered appropriate. 21 questions in pre-and-post questionnaire 1, and 15 questions in pre-and-post questionnaire 2, each with a 3-point Likert scale, with possible levels of responses for each question ranging from *Agree* to *Unsure* to *Disagree*.

Table 4.7 (continued). Steps in the development and refinement of the pre-and-post questionnaires 1 and 2

QUESTIONNAIRE CONTENT	REFINING OF QUESTIONNAIRES	OUTCOME
		Questions in both questionnaires were broadly based on the framework of the Activities, Participation and Environmental constructs of the ICF (WHO 2001) (*Appendix 17*). Pre-post questionnaire 1 comprised 21 questions around the photo counter scenario (video scenario 1(Table 4.6)); and pre-post questionnaire 2 comprised 15 questions around the returns counter scenario (vide scenario 2 (Table 4.6)). Both questionnaires contained 6 identical questions (questions 4; 7; 9; 13; 19 and 20 in questionnaire 1 were identical to questions 4; 7; 9; 11; 12; and 14 on questionnaire 2 respectively). Remaining questions on the final version of both questionnaires reflected specific issues around the 2 different scenarios.
Pilot study: (*Appendix 18*)	March 2005: 2 questionnaires piloted with a group of 5 sales assistants from the retail supermarket chain store participating in the study.	All participants completed the questionnaires with apparent ease. Instructions for Participants (*Appendix 14*) modified slightly, and certain questions deleted in the final version of the Biographical Information Form (*Appendix 16*).
	March 2005: Researcher presented pilot data to the PhD (CAAC) group and Swedish collaborators visiting South Africa.	Recommendations made to determine content validity of both questionnaires by examining each question in relation to the 8 slots of the training session (planned for the experimental phase of the main study) as being primarily, secondarily, or more generally targeted (*Appendix 19*). Content validity was satisfactorily demonstrated, and validated together with the statistician.

Table 4.7 (continued). Steps in the development and refinement of the pre-and-post questionnaires 1 and 2

QUESTIONNAIRE CONTENT	REFINING OF QUESTIONNAIRES	OUTCOME
	March 2005: Discussed statistical coding of pre-and-post questionnaires 1 and 2 with the statistician.	Both questionnaires coded differently to reliably reflect the pre-and-post questionnaire data for statistical interpretation. The final versions of the questionnaires were implemented with both the experimental and control groups during March and April 2005 (*Appendices 12 & 13*).
	March and April 2005: Administration of pre-and-post questionnaires 1 and 2	Pre-and-post questionnaires 1 and 2 administered during the main study (*Appendices 12 & 13*). Pre-post questionnaire 1 in conjunction with video scenario 1; and pre-post questionnaire 2 in conjunction with video scenario 2 (Table 4.6).
	August 2005: Formulation and evaluation of reliable confidence and skill constructs to be used in pre-and-post-questionnaire 1 and 2 administrations.	Reliable confidence and skill constructs formulated (**Section 4.4.8**), and defined and highlighted in Tables 4.8 and 4.9 below.

a) Item analysis: Formulation of confidence and skill constructs on pre-and-post questionnaires 1 and 2

The questions on each pre-questionnaire were clustered to eventually form 2 constructs in relation to the pre-and-post questionnaires 1 and 2, namely the skill and confidence construct. These constructs were then used to assist in statistically determining a trend of responses in the experimental and control groups to the procedures of the main study.

To configure and evaluate the skill and confidence constructs, the following procedure was carried out on the pre-questionnaires 1 and 2:

- Initially the questionnaires 1 and 2 were examined for the most preferred answers to each questionnaire (as would be expected of a trained person). These answers were then coded into a 3-point grading - namely: 1 - *Least preferred*; 2 - *Unsure*; 3 - *Most preferred*.
- All questions on the 2 questionnaires were divided into 3 theoretical constructs (namely: confidence; skill; and insight). Item analysis was performed on these constructs, and the item-total correlations, as well as the Cronbach Alpha reliability coefficient, revealed the need to systematically clean them in order to increase their reliability and raise the Alpha coefficient.
- Certain questions on all 3 scales revealed a skew distribution (with a low item total correlation), reflecting how the group participants in the pre-questionnaire administration situation already gave the preferred answer. 6 questions (namely questions 11; 14; 15; 16; 17 and 18) were therefore omitted from the revised version of the constructs in pre-and post questionnaire 1; and 2 questions (namely questions 6 & 13) from the revised version of the constructs in pre-and-post questionnaire 2. The third construct (insight) was thereafter absorbed into the first and second constructs (confidence and skill respectively), thereby raising the Alpha coefficient, indicating that the 2 constructs were reliable.
- The 2 constructs used for the final analysis were the confidence and skill constructs, with questions from questionnaires 1 and 2 allocated to it respectively.

Table 4.8 defines the constructs as used in the current research, and describes the items of each construct on pre-questionnaire1, together with the means, standard deviations and alpha reliability coefficients in more detail, indicating the reliability of the construct. (More detailed definitions of these constructs were provided in chapter 1, Section 1.4).

Table 4.8 Questions comprising each of the constructs on pre-and-post questionnaire 1

CONFIDENCE CONSTRUCT **Definition:** Confidence in serving this kind of customer, and interacting with him/her with self assurance and boldness			
Question	**Item Mean**	**Item Std Deviation**	**Item Construct Correlation**
1) I would feel unsure about serving this customer	2.444	0.691	.78
2) I would want to avoid serving this customer as I would feel unconfident as to how best to deal with him	2.683	0.407	.69
7) I would feel frustrated that I didn't have better training to deal with this kind of customer	1.794	0.862	.65
20) I would feel comfortable sitting next to this customer on a bus or taxi	2.413	0.623	.59
Construct Mean: 2.333			
Construct Standard Deviation: 0.540			
Construct Alpha reliability coefficient: 0.595			
SKILL CONSTRUCT **Definition:** Skill in observing and responding to this kind of customer - including feelings regarding the customer's competence			
Question	**Item Mean**	**Item Std Deviation**	**Item Construct Correlation**
3) I would respond in the same way to this customer as he did in the video	2.063	0.853	.52
4) I would spend the same amount of time with this customer as he did in the video	1.667	0.762	.60
5) I would serve this customer quicker so that other customers in line could be served	1.730	0.832	.62
6) I would feel frustrated after serving this customer that I had taken so long to help him	1.698	0.750	.57
8) I would end this transaction quickly as the product was not available in the store	1.413	0.496	.51
9) The manager served this customer efficiently	1.508	0.536	.44
10) The manager will serve this customer in the same way at the end of the month when the store is very busy	1.952	0.744	.45
12) The manager should have been more patient and explained more of the difficulty he had in getting the product for this customer	1.619	0.776	.31
13) The manager coped well with this sales transaction	1.635	0.644	.41
19) It would be helpful for the customer to have someone with him to do his shopping	1.587	0.719	.26
Construct Mean: 1.687			
Construct Standard Deviation: 0.395			
Construct Alpha reliability coefficient: 0.606			

Table 4.9 defines the constructs as used in the current research, and describes the items of each construct on pre-questionnaire 2, together with the means, standard deviations and alpha reliability coefficients in more detail, indicating the reliability of the construct.

Table 4.9 Questions comprising each of the constructs on pre-and-post questionnaire 2

CONFIDENCE CONSTRUCT **Definition:** Confidence in serving this kind of customer, and interacting with him/her with self assurance and boldness			
Question	**Item Mean**	**Item Std Deviation**	**Item Construct Correlation**
1) Feel comfortable when approached by this customer	2.730	0.356	.57
2) Know what this customer would need to help make this an efficient transaction	2.746	0.221	.39
3) Assist this customer alone without asking other sales assistants to help me	2.238	0.848	.75
7) Feel frustrated that I did not have better training on how to serve this customer	1.905	0.912	.64
14) Feel comfortable sitting next to this customer on a bus or taxi	2.603	0.430	.58
Construct Mean: 2.444			
Construct Standard Deviation: 0.440			
Construct Alpha reliability coefficient: 0.535			
SKILL CONSTRUCT **Definition:** Skill in observing and responding to this kind of customer - including feelings regarding the customer's competence			
Question	**Item Mean**	**Item Std Deviation**	**Item Construct Correlation**
4) Spend the same amount of time serving this customer as the sales assistant did in the video	2.381	0.807	.54
5) Not feel comfortable asking the customer to repeat herself, even if I did not understand her	2.286	0.839	.46
8) Think the customer finds it hard to understand what the sales assistant is saying	1.571	0.721	.57
9) Think the sales assistant served this customer efficiently	2.683	0.439	.56
10) Think it would upset the customer if I asked her to write down what she was saying to me, instead of asking her to say it again	1.571	0.658	.49
11) Think the sales assistant coped well with the sales transaction in the video	2.524	0.599	.51
12) Think it would be helpful for the customer to have someone with her to do her shopping	2.159	0.895	.43
Construct Mean: 2.168			
Construct Standard Deviation: 0.423			
Construct Alpha reliability coefficient: 0.508			

vi) *Step 6: Development and refinement of a training session*

Between February 2003 and March 2005 the researcher compiled and refined the material comprising the once-off 4 hour training session that was held during the main study with the experimental group in April 2005 (*Appendices 20 - 28*).The training session was formulated within the time period allocated to the researcher by the supermarket region participating in the main study.

The preliminary input leading to the development and refinement of this training session included the following:

- Input by local and international experts from expert questionnaires sent out during step 3 of the pre-experimental phase of the research (June 2003). Input was specifically requested regarding the potential value of a training session, as well as specific suggestions for such a training session (Table 4.4).
- Review of limited relevant literature regarding published partner training programs within the acquired adult neurogenic field (Chapter 2, Table 2.1).
- Ongoing personal communication with various experts working with individuals with acquired brain injury (to determine the status of current local and international trends in training programs dealing with disability awareness specifically) including: Holland (2004); Kagan (2003); Sohlberg, (2004); Threats (2003); Togher (2003; 2004) and Ylvisaker (2004) (*Appendix 1D*).
- Examination of limited existing published corporate training programs, combined with e-mail correspondence worldwide (described in detail in chapter 3), together with personal communication with several local corporate consultants involved in training program development including: Coats (2004); Codrington (2004); and Mann (2004; 2005) (*Appendix 1B*). Findings revealed how in spite of worldwide legislative changes, relatively few published diversity programs exist that extend beyond awareness and removal of physical barriers in relation to interaction with individuals with a disability, providing further evidence of the need for the main study.
- Searched for already existing video material using individuals with a TBI specifically, to consider incorporating it into the developing training session. Resources personally contacted included among others: Brown (2004) (regarding the Iowa Department of Health's instructional video, *Pieces of the Puzzle, an Introduction to Brain Injury* (1999)); Sullivan (2003) (representing the New Hampshire Brain Injury Association); and Winslow (2004) (representing the South African Drive Alive Campaign) (*Appendix 1e*). In addition, professional websites consulted included: the American Occupational

Therapy Association (retrieved April 16, 2004 from http://www.aota.org/); the American Speech-Language Association (retrieved April 16, 2004 from http://www.asha.org/default.htm); the Australian Brain Injury Association (retrieved April 15, 2004 from http://www.biausa.org/); Brain Injury Australia (retrieved April 29, 2004 from http://www.braininjuryaustralia.com.au/home_.htm).Very few suitable videos were available, with none dealing specifically with interactions of customers with TBI in the retail environment, providing evidence in support of the need for the researcher to develop video material for use in the main study.

- The training session was developed and further refined to conceptually reflect and incorporate principles of adult learning and diversity awareness (Bornman, 2001; Franklin's disability awareness in a retail environment training manual, 2001; Mayo and DuBois, 1987a, 1987b, 1987c, 1987d, 1987e, 1987f, 1987g; Mintzberg, 2004; Roosevelt Thomas (with Woodruff), 1999a, 1999b, 1999c; Silberman,1990; Slavin, 1996; Togher et al., 2004; Wastell,1995) (described in detail in chapter 3). The focus of the training session was increasingly aimed at using material to facilitate the sales assistants' consideration of diverse ways of examining interactions with different kinds of customers, thereby increasing their confidence and skill in identifying the barriers to, and facilitators of sales transactions involving customers with a TBI (*Appendices 20 - 24*).

Given the paucity of suitable material for the main study, Table 4.10 highlights the material developed by the researcher to comprise a training session suitable for the current research aim:

Table 4.10 Material specifically developed for the main study

Collaborate with a Research Assistant with a TBI in the training session during the main study (*Appendixes 20 & 21*), to provide information to the experimental group participants about TBI (rather than using an informational video). Researcher assisted him in editing his script to be shared with the experimental group participants (*Appendix 20*).
Formulated a List of *Do's and Don'ts* in the retail environment when serving customers with a TBI (*Appendix 23*). This was based on in-depth examination of video scenarios; input from focus groups during the pre-experimental phase of the study (including expert questionnaire input (Table 4.4) and TBI focus groups (Table 4.2)); and overview of Franklins' disability awareness in a retail environment training manual (2001).
Formulated a template with a line drawing of the supermarket shopping bag for participants to write their own list of *Do's and Don'ts* (*Appendix 24*) (Kagan & Shumway, 2003g).
Development of a pre-and post-training Confidence Rating Scale (*Appendixes 25 & 26*), to obtain a subjective pre-and-post training measure of the participant's confidence in their ability to manage sales transactions involving customers with a TBI.
Development of a Training Session Evaluation Form (*Appendix 27*) in order to triangulate data (Mayo & DuBois, 1987b, 1987g).
Compiled a Certificate of Attendance to give to all research participants (*Appendix 28*)**,** reflecting the participating supermarket chain's ethos of ongoing training of personnel at all levels of the company (Ackerman, 2002, 2005).

In summary, *Steps 4-6* described above reflect the material gathered in the process of developing and refining video scenarios; 2 pre-and-post questionnaires; and a 4 hour training session to be used in the main study.

vii) Step 7: Pilot study

a) Objectives

The objectives of the pilot study were to test the applicability of the training session and the questionnaires. The objectives; results and recommendations are described in detail in *Appendix 18.*

b) Context and participants

The pilot study was conducted at the Training Institute of the given chain store in the Gauteng region (a region adjoining the Northern region where the main study took place). The structure and function of each region within this supermarket chain is based on a national framework, so that piloting in the one region would reflect results comparable to the objectives of the main study. The researcher communicated with the Gauteng Regional Consumer Affairs Co-ordinator regarding the 4 hour long pilot study taking place in her region during January 2005. Although the researcher requested 8 participants in total, 5 participants were provided on the piloting day (2 were Customer Service Managers (CSM's), and 1 sales assistant serving in the Bakery, Deli

and Butchery sections respectively), fulfilling the criteria specified. All the sales assistants were female, literate, with an ability to speak and understand English at a minimum of Grade 8 level or above. For logistical reasons only 1 pilot session was provided to the researcher by the participating supermarket chain.

c) Procedure

- Prior to the commencement of the pilot session, the researcher introduced herself and asked the participants to sign a letter of consent to participate. In addition their permission was granted to use a tape recorder to tape the session.
- The viewing of 2 video scenarios (Videos 1 & 2; Table 4.6) by the participants with the 2 pre-questionnaires administered respectively (*Appendixes 12 & 13*), with the piloting of a 1½ hour sample (comprising 6 of the 8 slots) of the complete 4 hour training session to be used in the main study (Table 4.14).
- During the last hour, the same 2 videos were again shown to the 5 participants, and the same 2 post-questionnaires then completed (**Appendices 12 & 13**).

d) Pilot study: Objectives, results and recommendations

The objectives, results and recommendations made after the completion of the pilot study are provided in *Appendix 18*. In summary, after completion of the pilot study, minor modifications were made to the instructions given to participants before viewing the videos; to the questions on the biographical information; and to the format of the Training Session Evaluation Form. Results indicated that the pacing and time plan of the session were appropriate; the use of overhead transparencies, flipchart, and handouts was helpful; and questions in both pre-and-post-questionnaires, as well as instructions throughout, were considered unambiguous and clear to follow. The use of small groups to facilitate discussion among the participants was valuable; and the overall perception regarding the exposure to the training session was positive for all participants. Closer examination of the performance of all participants on the questionnaires in relation to parts of the training session they received revealed a correlation between the questions of the pre-and-post questionnaires and the components of the training session piloted. Pilot data reflected shifts in the participants' ability to identify barriers to, and facilitators of interaction with customers with a TBI (even after a brief training exposure, and with very little time in the before and after viewing of the videos accompanying the administration of the pre-post questionnaires), making it suitable for use in the main study.

4.4 Main study

4.4.1 Training context

One of South Africa's largest national retail supermarket chains was approached by the researcher for the implementation of both the pre-experimental phase and the main study of the current research, as a result of the perception that as a company, it is proactive in its responsibility towards both its employees and customers. The chain currently comprises 108 supermarkets countrywide, with over 40 000 employees (Ackerman, 2005), with 24 stores in the Northern region where the main study took place. Ackerman has noted how the core of the chain is founded on the "four legs of the table" principle (2005, p.47), where the leg representing consumer sovereignty lies on top, focusing on involvement with society, and having the right people-policies in place. Shortly after the fundamental changes that took place in the broader context of South Africa (with a new Government under President Mandela), this retail company likewise embarked on a fundamental change process called Vuselela or rebirth, aimed at inculcating a climate of dignity, respect and freedom amongst every employee of the company (Ackerman, 2005). The company today is based on a foundation of personnel training, ranging from structured on–the–job training to tertiary education, fostering pride in individual achievements that filter over to willing, courteous and efficient valued customer service (Ackerman, 2005).

4.4.2 Participant selection and description

The target for the main study was to select participants from 24 stores in the Northern region of the chain, comprising 13 stores in the Pretoria area; 3 stores in the North West Province; 4 stores in the Northern Province; and 4 stores in the Mpumalanga Province. Purposeful sampling was used to select all 24 CSM's and all 24 Customer Care Assistants (CCA's) in the stores to attend the training. They were randomly assigned to the experimental and control groups. An additional 22 sales assistants from the Deli and Bakery (frontline customer service areas of the store) were selected to participate, in order to create sufficient numbers in both the groups for statistical purposes. Table 4.11 reflects the participants in both the experimental and control groups who actually attended the first session of the main study, and their demographics.

Table 4.11 Participants and participant selection criteria

Participants	EXPERIMENTAL GROUP n = 31	CONTROL GROUP n = 33
Service level in supermarket * (*Appendix 29A*)	13 Customer Service Managers 11 Customer Care Assistants 7 Deli/Bakery sales assistants	8 Customer Service Managers 11 Customer Care Assistants 14 Deli/Bakery sales assistants
Average age (*Appendix 29B*)	38.3870 years (S.D. 9.3047)	41.9393 years (S.D. 8.9580)
Home language (*Appendix 29C*)	A variety of mother tongues spoken	A variety of mother tongues spoken
Perceived level of speaking English * (*Appendix 29D*)	26 Good 5 Average	24 Good 9 Average
Perceived level of understanding English * (*Appendix 29D*)	26 Good 5 Average	28 Good 5 Average
Literacy skills * (*Appendix 29E*)	31 literate	33 literate
Average length of time working for the company (*Appendix 29B*)	10.8710 years (S.D. 7.3518)	11.0606 years (S.D. 6.9997)

Key: * = participant selection criteria

In spite of the arrangement for 35 participants to attend in order to comprise both the experimental and control groups respectively on the designated days of the 3 sessions of the main study, the attendance numbers fluctuated due to a variety of practical reasons including illness and transport problems. Table 4.12 reflects the number of participants actually attending each of the 3 sessions of the main study.

Table 4.12 Number of participants attending each of the 3 sessions of the main study

SESSION	EXPERIMENTAL GROUP PARTICIPANTS (n)	CONTROL GROUP PARTICIPANTS (n)
Session 1	30	33
Session 2 –Training	31	
Session 3	29	30

4.4.3 Inter-group demographics

Statistical examination of the demographic data of both the experimental and control group participants included the use of frequencies to examine both groups, and Fisher's Exact Tests were performed on the variables of gender; ability to speak and understand English; educational level; position in the Company; and knowledge of anyone with a speech problem. The Mann-Whitney U test was used to compare the distribution of age in number of years in both the experimental and control groups, and to examine number of years participants in both groups worked for the Company. All data, shown in *Appendices 29A –29F* revealed no statistical differences between these groups, emphasizing that they were well matched on these variables.

4.4.4 Equipment

The equipment used for the training of the sales assistants, data collection and analysis consisted of the following items:

- Laptop computer and Proxima projector
- DVD's comprising the video scenarios
- Overhead projector
- Transparencies and transparency pens
- Flipchart
- Pencils

4.4.5 Measuring instruments used in main study

In order to meet the requirements of the research question, the following measuring instruments were developed for use in the main study, and will be briefly described below:

4.4.5.1 Pre-and-post questionnaires 1 and 2

These questionnaires were developed and refined over a period of time (Table 4.7). Table 4.13 provides a description of the components and rationale for pre-and-post questionnaires 1 and 2 as used in the main study.

Table 4.13 Description of components and rationale for pre-and-post questionnaires 1 and 2

QUESTIONNAIRE	COMPONENTS	RATIONALE
Pre-and-post questionnaire 1 (*Appendix 12*)	21 questions – 20 closed-ended questions, and 1 open-ended question	Pre-and-post questionnaire 1 was administered after viewing video scenario 1 (Table 4.6), aimed at determining the confidence and skill of the participant in identifying the barriers to, and facilitators of interactions in a retail service encounter between a customer with a TBI and a sales assistant before and after a once-off training session (that was presented to the experimental group only).
Pre-and-post questionnaire 2 (*Appendix 13*)	15 questions – 14 closed-ended questions, and 1 open-ended question	Pre-and-post questionnaire 2 was administered after viewing video scenario 2 (Table 4.6), aimed at determining the confidence and skill of the participant in identifying the barriers to, and facilitators of interactions in a retail service encounter between a customer with a TBI and a sales assistant before and after a once-off training session (that was presented to the experimental group only).
Open-ended questions pre-and-post questionnaires 1 and 2 (*Appendices 12 & 13)*		The open-ended questions in both pre-and-post questionnaires 1 and 2 were used to explore further input from the respondents' perspective in their own words (Cummings et al., 2001), and to a lesser extent, to countercheck some of the other closed-ended questions, thereby controlling for bias in the development of the questionnaire (Bornman, 2001; Leedy, 1993).

4.4.5.2 Confidence Rating Scale: pre-and-post training

This 5 point scale was used as a subjective pre-and-post training measure of the participants' confidence in their own ability to serve a customer with a TBI before and after training (*Appendices 25 & 26*).

4.4.5.3 Training Session Evaluation Form

This short 2 page questionnaire evaluating the training session comprised the following: 8 questions about the content and methodology of the training session on a 3-point Likert scale from *Agree*-to-*Unsure*-to-*Disagree*; one question having the participant rate the overall value of the training session (on a scale of 1 (*poor*) - 5 (*very good*); and an open-ended question asking the participant for comments and suggestions for further training (*Appendix 27*). The evaluation form aimed at obtaining the necessary information in as short a time as possible, particularly as it was completed at the end of a lengthy training session where the participants might have been fatigued (Bornman, 2001), and the input was considered useful to triangulate the data (Mayo & DuBois, 1987b, 1987g).

4.4.6 Description of training session

The training session developed for the current study broadly used the ICF (WHO, 2001) as the framework of reference targeting a system level change (Simmons-Mackie et al., in press) within the retail sector specifically. It aimed at having a group of sales assistants increase their confidence and skill at identifying the barriers to, and facilitators of a range of videotaped sales interactions with customers with a TBI. In so doing, the sales assistant would potentially shift from being a barrier to a facilitator, thereby potentially enhancing the participation of the customer with a TBI in the retail context.

Given the logistics of the functioning of a large retail company, and the aim of training sales assistants coming from large distances within a surrounding geographical region, only one day was allocated by the participating company for the training session to take place. Pre-and-post questionnaire 1 and 2 administrations, as well as the training session itself took place in the conference room of the company's Northern region support office in Pretoria - a spacious venue with comfortable seating, few distractions (Jarvis, 1995), and the technology to professionally support the training. In addition, the infrastructure existed to provide teas and lunches with ease to the participants.

The detailed training session is provided in *Appendix 21*. The researcher was assisted by a qualified SLP who took notes and assisted with all administrative needs during the training session. In addition, a 36 year old male research assistant with a TBI collaborated with the researcher throughout the training session. Krogh and Lindsay (1999); Mertens (1998); Oliver (1992) and Sohlberg et al. (1998) have likewise advocated the collaborative use of individuals with disabilities in research to generate knowledge and bring about personal and social change.
The overall focus of the training session was to use an interactive and active group participation format, together with the personal input of the co-trainer with a TBI, and various in-store meaningful video scenarios as examples, in order to systematically increase the confidence and skill of the participant in identifying the barriers to, and facilitators of interaction with customers with a TBI. Table 4.14 below provides a summary of the training session agenda, including the purpose, process, equipment and technical resources used to facilitate this. Slots used in both the pilot training session and the courtesy training session are reflected.

Table 4.14 Summary of the training session

SLOT & TIME	TRAINING SESSION CONTENT
Slot: 1a 10:00am (15 minutes)	**Welcome and Introduction** * ◙ Brief introduction, followed by introduction of Research Assistants Marjan (SLP), and Derick (with a TBI). Derick to provide the group with a 5 minute overview (*Appendix 20*)
Purpose:	▪ Set the context for the day ▪ Exposure to an individual with a TBI and experiencing more fully what they will be trying to understand during training ▪ Generate energy and anticipation
Process:	▪ Participants seated in small groups at individual tables ▪ Introduction by researcher ▪ Researcher to introduce research assistant with a TBI - experiential training through exposure to an individual with a TBI
Equipment/ Resources:	Name labels.
Slot: 1b 10:15am (3 minutes)	**Confidence Rating Scale :Pre-training** (*Appendix 25*)
Purpose:	Obtain subjective pre-training confidence rating of participants' perceptions regarding their confidence in serving customers with a TBI
Process:	Researcher to guide group
Equipment/ Resources:	▪ Confidence Rating Scale for each participant; pens
Slot: 2 10:18am (15 minutes)	▪ **Fable – the Giraffe and the Elephant (Roosevelt Thomas (with Woodruff) 1999c)** * (*Appendix 22*) ▪ Researcher to read fable to group followed by discussion
Purpose:	Use fable as metaphor for participants to consider range of potential customers they may serve, and the possible barriers and facilitators needed
Process:	▪ Researcher to discuss the fable ▪ Researcher to inform group of plan to consider dealing with a diverse range of customers in this session ▪ Brief small group discussion around the fable with feedback to whole group – question presented on overhead transparency to group
Equipment/ Resources	Overhead transparency with fable and question about the fable on it; group feedback; flipchart to record ideas
Slot: 3 10:33am (40 minutes)	**Group consideration of shopping from a customer and sales assistants' perspective** Small groups asked to consider the *barriers* (from both perspectives) when dealing with a customer with a TBI
Purpose:	▪ More in-depth look by the groups of awareness from the customer and sales assistants' perspective of possible *barriers* intruding on sales transactions involving customers with a TBI

Table 4.14 (continued). Summary of the training session

SLOT & TIME	TRAINING SESSION CONTENT
Process:	▪ 2 questions given to group for discussion within the small groups (Overhead transparency) ▪ Participatory / interactive problem solving group format ▪ 1 person per group to summarise group input and to present to whole group afterwards Researcher to summarise input on flipchart regarding the possible range of difficulties an individual with a TBI may experience when shopping; and also the sales assistant when serving such a customer.
Equipment/ Resources	Group feedback; overhead transparency with question on it; flip chart to record ideas
TEA 11:13am (15 minutes)	
Slot: 4 11:28am (60 minutes)	**Use of video scenario (scenario 3) to consider barriers and facilitators when serving customers with a TBI*** (Table 4.6)
Purpose:	▪ Use of video scenario to facilitate discussion around their need to consider serving a diverse range of customers ▪ More in-depth look at group awareness concerning the *barriers and facilitators* (from both the customer and sales assistants' perspective) when serving a customer with a TBI
Process:	▪ Participatory / interactive problem solving group format ▪ Show video scenario 3 of 2 customers with a TBI in a supermarket store ▪ Ask small groups to consider 3 questions while watching the video (questions on an overhead transparency) ▪ Discussion within small groups, and then presented to whole group for discussion ▪ Researcher to summarise on flipchart the *Do's and Don'ts* of such transactions ▪ Group discussion with Research Assistant Derick around issues of concern within the group regarding shopping for a customer with a TBI
Equipment/ Resources	Overhead projector with questions on it; group feedback; flip chart to record ideas
LUNCH (45 minutes) 12:28 pm	
Slot: 5 1:15pm (30 minutes)	**Use of other video scenarios (scenarios 4 - 7) to consider barriers and facilitators when serving customers with a TBI** (Table 4.6)
Purpose:	More in-depth look at group awareness concerning the *barriers and facilitators* (from both the customer and sales assistants' perspective) when serving a customer with a TBI
Process:	▪ Participatory / interactive problem solving group format ▪ Show other video scenarios of a customer with a TBI in various supermarket stores ▪ Ask small groups to consider same 3 questions (as in Session 4) while watching the video (questions on an Overhead transparency) ▪ Discussion within small groups – and then presented to main group as an overview ▪ Group discussion with Research Assistant Derick around issues of concern within the group regarding shopping for a customer with a TBI

Table 4.14 (continued). Summary of the training session

SESSION & TIME	TRAINING SESSION CONTENT
Equipment/ Resources	Group feedback; overhead projector with questions on it; flip chart to record ideas
Slot: 6 1:45 pm (20 minutes)	**Review list of *Do's and Don'ts***
Purpose:	▪ Raising awareness among the participants of the barriers and facilitators within a sales transaction with a diverse range of customers, and with customers with a TBI in particular
Process:	▪ Researcher to summarise group input on flipchart under the *Do's and Don'ts* of such transactions ▪ Researcher to review list on Overhead of *Do's and Don'ts* (including input from pilot study) (*Appendix 23*)
Equipment/ Resources	Group feedback; overhead projector with list of *Do's and Don'ts* on it
Slot: 7 2:05pm (10 minutes)	**Integration of Material Covered**
Purpose:	▪ Opportunity to integrate issues raised in order to feel more confident when serving customers with a TBI
Process:	▪ Review all flipcharts of the list of potential problems (from the customer and sales assistants' perspective) regarding a sales transaction involving a customer with a TBI
Equipment/ Resources	Flip chart; group feedback
Slot: 8a 2:15pm (30 minutes)	**Summary and Formulation of personalised list of Do's and Don'ts**
Purpose:	▪ Opportunity to summarise and integrate issues discussed in order to develop a handy list of possible tips when serving customers with a TBI
Process:	▪ Group participants to write down useful tips (*Do's and Don'ts*) they each want to remember on a piece of paper with a template representing a supermarket shopping bag (*Appendix 24*) ▪ List of tips to be laminated later by the researcher for each participant to refer to afterwards in the stores ▪ Closing overview by researcher, with a few closing words from Research Assistant, Derick
Equipment/ Resources	Overhead transparency of template of shopping bag; flip chart; group feedback
Slot: 8b 2:45pm (3 minutes)	**Confidence Rating Scale : Post–training** (*Appendix 26*)
Purpose:	▪ Obtain subjective post-training confidence rating of participants' perceptions regarding their confidence in serving customers with a TBI.
Process:	▪ Researcher to guide group
Equipment/ Resources	Confidence Rating Scale for each participant; pens

Table 4.14 (continued). Summary of the training session

SESSION & TIME	TRAINING SESSION CONTENT
Slot: 8c 2:48pm (10 minutes)	**Training Session Evaluation Form** * (*Appendix 27*)
Purpose:	▪ To obtain a measure of the value of the session to triangulate data, as perceived by the group participants
Process:	▪ Researcher to guide group – and have them complete a Training Session Evaluation Form
Equipment/ Resources	Training Session Evaluation Form for each participant
Slot: 8d 2:58pm	***Certificate of Attendance from the University of Pretoria*** **given to all participants including the Research Assistants** (*Appendix 28*)
END OF TRAINING SESSION 3:00 PM	

Key: * = Sessions used in the pilot training session
◙ = Sessions used in the courtesy trainingsession

4.4.7 Data collection procedures

4.4.7.1 Specific considerations

During the collection of data, in order to ensure reliability and ecological validity, specific considerations had to be taken into account including:

a) The Hawthorne effect: This has been described by Mertens (1998) as one of 10 factors that might influence ecological validity – "some behavioural change as a result of awareness of being a subject in an experiment" (Adair, 1984, p. 335). Adair refers to numerous variables potentially mediating this Hawthorne effect, including: prestige from being selected; special attention by being in an experimental group; change in routine or novelty associated with the experimental program; team work; heightened attention to the task and motivation accompanying the testing situation; and clear performance expectations. To minimize the Hawthorne effect in the current study (Adair, 1984; Bornman, 2001; McMillan & Schumacher, 2001; Mertens, 1998; Sohlberg et al., 1998) the researcher requested that all sales assistants participating in the in-store videotaping try to be as natural as possible in their sales transactions while being videotaped. While all

participants in the pre-questionnaire administration session (Session 1, Table 4.1) were informed in the pre-questionnaire instructions that they were participating in a research project (*Appendix 14*), no other information was provided about further training being implemented for certain participants, until the end of that session when they had all completed their questionnaires. In addition, all participants were told before completing the pre-and-post questionnaires that there were no correct or incorrect answers.

b) In an endeavour to minimize the John Henry effect or compensatory rivalry (McMillan & Shumacher, 2001), control groups participants were told (in the post-questionnaire administration session (Session 3, Table 4.1) that they would be receiving a courtesy training session at the end of that session.

c) All preparatory and pre-experimental data gathering took place in stores in the Gauteng region of the retail supermarket participating in the current research, while all sessions of the main study took place in a different region - the Northern region of the same company. In so doing, an effort was made to ensure lack of exposure of the experimental and control group participants to any component of the research before the main study began.

d) The Research Assistant with a TBI was only present during the training session (Session 2 of the main study), and not during Sessions 1 and 3, in order to ensure that his presence did not cause bias in the responses of either the experimental or control groups in their pre-and-post questionnaire completion in either Sessions 1 and 3 respectively (Table 4.1).

e) The researcher edited the script for the Research Assistant with a TBI, and discussed with him in advance the collaborative role he would take during the training session, so that his input throughout was controlled and well paced rather than over-intrusive and time consuming.

f) Every effort was made to keep the questionnaires as short and manageable as possible, so that all the participants would cope with viewing both video scenarios and completing both questionnaires in the same session. In addition to the pilot study, the language used in both questionnaires was reviewed by the management of the supermarket store to ensure that all participants would cope with the instructions and questions in both questionnaires.

4.4.7.2 General procedures

The procedure used during the preparatory, pre-experimental phase and the main study was as follows:

a) Consent for the research was obtained from the General Manager (GM) Northern Region of the chain store in question. After an initial presentation to him during April 2003, ongoing meetings and contact took place with him and his assistant, the Consumer Affairs Co-ordinator, Northern Region (until April 2005) in person, telephonically, and through regular e-mails, in order to co-ordinate both the preparatory and pre-experimental phases in another region (namely the Gauteng Region), as well as the main study in the Northern region.

b) The pre-experimental phase of the research comprised 7 steps (Table 4.1). In the first 3 steps, 4 focus groups participated in a needs analysis, in order to determine perceptions concerning barriers and facilitators in retail encounters, for sales assistants serving customers with a TBI, as well as for the customer. The groups comprised 2 groups of individuals with a TBI; a group of sales assistants (working in the same supermarket chain but in another geographical area from where the main study took place); as well as a group of experts working in the field of adult brain injury (who completed a questionnaire). In the 4th step, video scenarios were developed. Information gained from the first 3 steps, together with ongoing discussion with colleagues were used to video, refine and edit the in-store videos (taken by a professional videographer and his team) for use during the main study. 7 video scenarios were finely edited – 2 for use in the administration of pre-and-post questionnaires; and 5 for training purposes during the main study. In the 5th and 6th steps, combined input from the focus groups; ongoing discussion with colleagues, together with literature reviews resulted in the development and refinement of 2 questionnaires, as well as a 4 hour training session to be used during the main study.

c) March 2005: The pilot study took place in the Gauteng region of the same supermarket chain to test the applicability of the questionnaires and the training session. Minor modifications were considered necessary as a result of this process.

d) March – April 2005: The main study took place in the Northern region support office in Pretoria, and the researcher was assisted throughout all three sessions by a qualified SLP (*Appendix 21*).

Figure 4.2 illustrates these different sessions of the main study, and is an extension of Table 4.1. An overview of these sessions is then provided below.

SESSION	DESCRIPTION
Session 1	Pre-questionnaire 1 and 2 administration: To identify the confidence and skill of sales assistants (in both the experimental and control groups) in identifying barriers to, and facilitators of interactions involving customers with a TBI (as shown in video scenarios 1 and 2 respectively).
Session 2 (2 weeks later)	Training the experimental group to increase their confidence and skill in identifying such barriers and facilitators (assisted by a research assistant with a TBI).
Session 3 (2 weeks later)	Post-questionnaire 1 and 2 administration: To identify the confidence and skill of sales assistants (in both the experimental and control groups) in identifying barriers to, and facilitators of interaction involving customers with a TBI (as shown in video scenarios 1 and 2 respectively).

Figure 4.2 Three experimental research sessions in the main study.

i) Session 1: March 2005

This commenced with the experimental and control groups combined, meeting with the researcher for an hour-and-a-half to view 2 videos (video scenarios 1 & 2 (Table 4.6)), and thereafter complete pre-questionnaires 1 and 2. The aim of this session was to determine the confidence and skill of the participants in identifying barriers to, and facilitators of interactions with customers with a TBI in sales interactions before a once-off training session for the experimental group participants (Figure 4.3).

Figure 4.3 Session 1: Experimental and control groups combined.

ii) Session 2: April 2005

The training session (*Appendix 21*) took place exactly 2 weeks later with only the experimental group participating. A Research Assistant with a TBI collaborated with the researcher in this session, and discussed issues related to TBI and shopping with the group participants (Figures 4.4 and 4.5). By means of using an interactive small group format with meaningful video scenarios and overhead material to facilitate lively discussion, the 4 hour training session (comprising 8 slots) aimed to provide a range of opportunities for the participants to identify barriers to, and facilitators of a range of sales interactions with customers with a TBI with greater confidence and skill. Participants were asked to rate their confidence in serving a customer with a TBI before and after training, and to fill in a template representing a supermarket shopping bag with their own personal list of *Do's and Don'ts* (laminated by the researcher for them to take home). In addition, all participants were asked to complete a Training Session Evaluation Form at the completion of this session.

Figure 4.4 **Session 2: Research assistant with a TBI sharing issues related to TBI and shopping with the experimental group.**

Figure 4.5 **Research assistant with a TBI answering questions during the training session.**

iii) Session 3: April 2005

The same procedure as described for Session 1 was repeated, which took place exactly 2 weeks after Session 2 (and 4 weeks after Session 1). The Research Assistant with a TBI was not present

during this session. At the end of this session, all participants were presented with a Certificate of Attendance from the University of Pretoria. In addition, experimental group participants were given their personalized laminated supermarket bags to keep for their own future use.

iv) Courtesy training session

Immediately after the end of Session 3, the control group participants stayed on for an hour-and-a-half long Courtesy Training session comprising the same program used in the pilot study and identified in Table 4.14. Participants were exposed to five parts of the full training session (used in Session 2) to provide them with confidence in identifying barriers to and facilitators of interactions involving customers with a TBI. At the end of this session, all participants were presented with a Certificate of Attendance from the University of Pretoria (Figure 4.6). The researcher was assisted by both the Research Assistant Derick, and the qualified SLP.

Figure 4.6 Control group participants displaying their Certificates of Attendance.

e) At the end of each phase the researcher encoded all the measuring instruments.

f) The encoded data was then captured, checked by the researcher for any capturing errors, and the statistical analysis commenced. Finally the interpretation of results followed.

4.4.8 Data analysis and statistical procedures

A pre-designed column marked "*For official use*" was placed on the right-hand side of all the measuring instruments, for encoding the raw data. This was encoded by the researcher according to the data definitions.

All data were computerized for statistical analysis with the SAS and BMDP3D Statistical Software packages. The results were then analyzed using a variety of statistical procedures, listed in Table 4.15 below, and were presented in tables, as well as bar graphs where appropriate (Bornman, 2001).

Table 4.15 Statistical procedures used in the main study

STATISTICAL PROCEDURE	RATIONALE
Discrete frequency distributions calculated for all variables on all 3 measuring instruments.	Listing and counting variable values every time they occurred to organize the data for interpretation (McMillan & Schumacher, 2001).
Mean scores and standard deviations (STD) calculated where applicable.	Information on average of all scores and average variability of the scores (McMillan & Schumacher, 2001).
Cronbach Alpha Reliability coefficient as part of the item analysis.	Reliability estimate – most appropriate for survey and questionnaire research where there is a range of possible answers for each item (McMillan & Schumacher, 2001).
Chi-square test; Fisher's Exact Test.	Compare nominal data sets in the form of frequencies, and ordinal data such as percentages, to test the statistical independence of 2 variables (McMillan & Schumacher, 2001; Mertens, 1998).
Effect size.	Uses means to compare an experimental and control group, and to indicate any practical significance of the difference between the 2 group means (Mertens, 1998).
Mann-Whitney U test.	2 independent samples (Mertens, 1998).
Wilcoxin Test.	Used with 2 related samples (Mertens, 1998).

4.5 Summary

This chapter described the methodology used in the study. It discussed the aim of the research, the sub-aims and the research design. The preparatory phases laying the foundation for the main study were presented, followed by the pre-experimental phase, together with a description of the pilot study, highlighting some minor modifications necessary for use in the main study. The main study was then described, including a description of the training context; participants; equipment; measuring instruments; the training session; data collection and procedures used for the research. Finally, data analysis and statistical procedures were described.

CHAPTER 5

RESULTS

5.1 Introduction

The current chapter commences with a presentation of the results of the measures specifically examined within the experimental group before and after their once-off training session. Thereafter, this chapter focuses on sub-aim 3 of the research, namely to analyze the inter-and-intra-group results, in order to examine and compare similarities and differences between the experimental and control groups' performance obtained through the confidence and skill constructs of pre-and-post questionnaires 1 and 2. The 2 other sub-aims have already been met in the preceding chapters, as they formed the basis for the methodology that was followed in the main study.

5.2 Measures administered to the experimental group before and after a training session

Since quality of training, and the way in which individuals experience it, are crucial in this research, this section commences with the subjective examination of the training session by all experimental group participants. This is reflected on both the Training Session Evaluation Form, and the pre-and-post training Confidence Rating Scales.

5.2.1 Training session evaluation and confidence ratings by experimental group participants

All 30 experimental group participants were asked to complete a Training Session Evaluation Form on the completion of their 4 hour training session, in order to obtain a holistic view regarding their subjective impression of it. Questions were presented in closed-ended format where respondents had to indicate "*Agree*" "*Unsure*" or "*Disagree*" with the statements regarding the session's content. In addition, participants were asked to provide an overall rating of the training session on a 1-5 point rating scale, where 1 was *poor*, and 5 *very good* (*Appendix 27*). The results are presented in Table 5.1 below.

Table 5.1 Experimental group participant ratings of components of the training session

1. PRESENTATION OF THE TRAINING SESSION

	n	n	n
	Agree	**Unsure**	**Disagree**
The trainer was well prepared for the training.	30		
The training sessions were logically planned and presented.	30		
The length of the training was sufficient.	28	2	
The videos provided useful training material.	28	2	
There were enough opportunities for participation during training.	30		
The training will help me and my colleagues deal better with customers with a traumatic brain injury.	30		
I would recommend this training session to my other colleagues to help them serve customers with a traumatic brain injury more competently.	30		
Meeting Derick today was helpful in training	30		

2. OVERALL RATING OF TRAINING SESSION

Participants' Ratings					
	1	**2**	**3**	**4**	**5**
Number of participants (n)				6	24
%				20%	80%

Key: 1= poor 5= very good

Clearly the data in Table 5.1 (1) and (2) above illustrates the overall highly positive ratings given by all group participants for the training session they received. 100% of the participants *agreed* that 6 of the 8 components of the training session were good. These included that the trainer was well prepared; the sessions were logically planned and presented; there were sufficient opportunities for participation during training; the training would be helpful to them in dealing with customers with a TBI; and that they would recommend the training session to other colleagues in order to help them serve customers with a TBI more competently. In addition, all participants felt that meeting the research assistant, Derick,(with a TBI) was helpful in training, With respect to 2 training components, only 6% of the participants were *unsure* about whether the length of the training session was sufficient, and if the videos provided useful training material. Furthermore, 80% of participants rated the session overall with a 5 (*very good*), while 20% of the participants rated it as 4 out of a possible 5 (Table 5.1(2)).

This overall positive input was further corroborated in their responses to open-ended question 3 of the Training Session Evaluation Form (*Appendix 27*), where participants were asked for comments and suggestions for further training. Thirteen participants (43%) commented that the training was valuable, using adjectives such as "excellent "or "very good" to describe their perception of the training received. Twelve participants (40%) recommended the need for "all staff including management to be trained with this kind of training". Thirteen participants (43%) expressed the need for more training with different kinds of customers with speech problems, and 7 participants (23%) supported the benefit of using videos to augment training.

This quantitative and qualitative data further supported the observation by the researcher and research assistants that experimental group participants in the training session participated completely over the entire 4 hour period. They remained focused, motivated, interactive and responsive, and clearly enjoyed the input of the research assistant with a TBI, whom they chatted to both within the session at appropriate times, as well as during tea and lunch breaks.

In addition to the training session ratings, all experimental group participants were asked to complete a Confidence Rating Scale both pre-and-post training, in which they were asked to place a cross on a line indicating how confident they felt in serving a customer with a TBI. The rating scale ranged from a rating of 1 (*not confident*) - 5 (*very confident*) (*Appendixes 25 & 26* respectively). A means procedure was used to determine whether a change had been perceived by the experimental group participants in their ability to serve a customer with a TBI pre-and-post training. The mean difference post-training was higher than pre-training, indicating that participants felt more confident after training in dealing with these customers.

Figure 5.1 below shows how 1 participant rated him/herself with a 2; 5 participants rated themselves with a 3; 8 participants with a 4; and 17 participants with a rating of 5 *pre-training*[1] on a scale of 5 (where 1 = *not confident* and 5 = *very confident*).

In contrast, *post-training*[2], 5 participants rated themselves with a 4, and 25 participants gave themselves a rating of 5. This perceived increase in confidence was likewise reflected in their significantly increased scores on the confidence constructs of post-questionnaires 1 and 2 (when compared with the control groups) (Tables 5.2 and 5.3).

[1] 31 participants completed this scale pre-training.
[2] 30 Participants completed this scale post-training as 1 person took ill during the session.

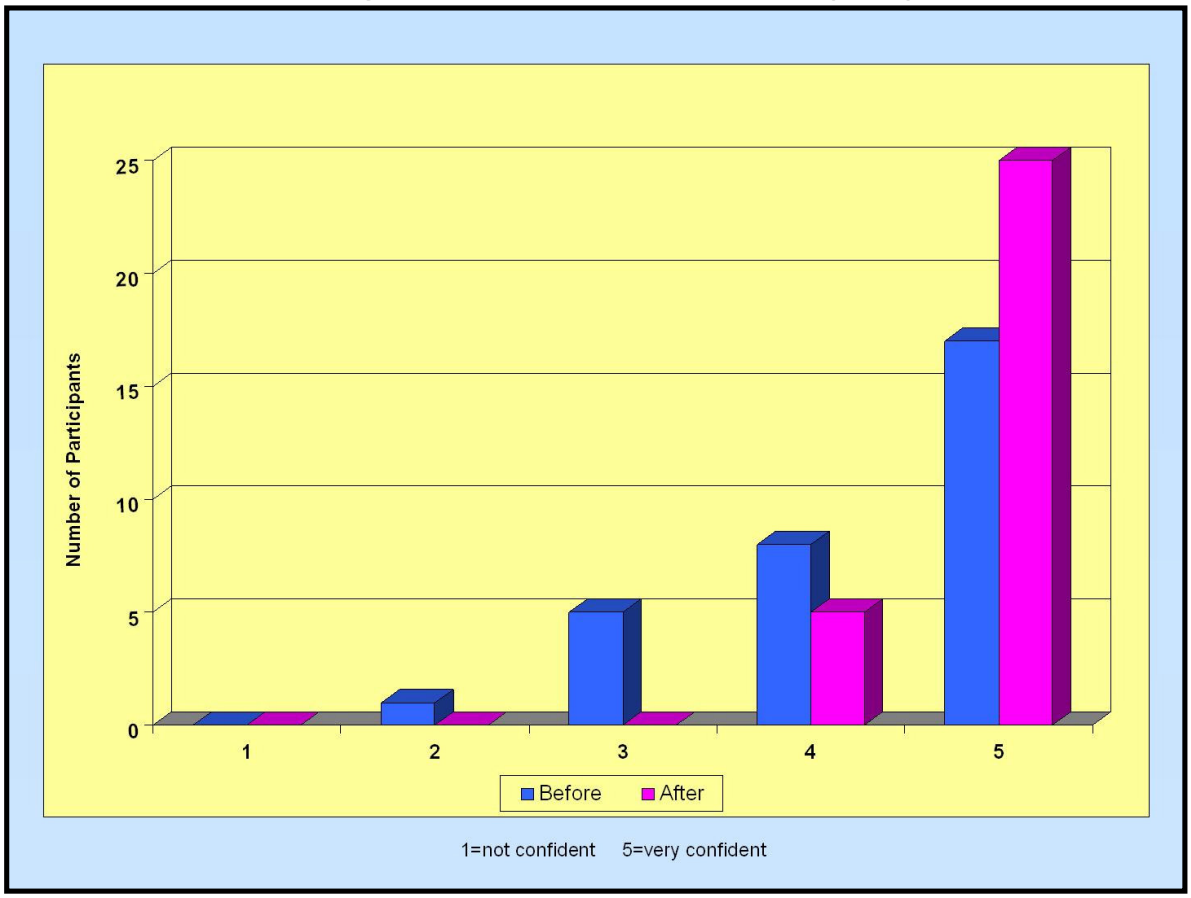

Figure 5.1: **Confidence Rating Scale: Pre-and-post training session ratings.**

5.3 Inter-group results

The following section will present the results obtained by the experimental and control groups in relation to:

- The biographical information of the groups;
- The confidence and skill constructs of pre-and-post-questionnaires 1 and 2; and
- The open-ended questions in pre-and-post-questionnaires 1 and 2.

5.3.1 *Inter-group comparison: Biographical information*

All experimental and control group participants completed a Biographical Information Form (*Appendix 16*) during the first session of the main study (Table 4.1). This information (presented in Chapter 4; Table 4.11**;** and *Appendices 29A – 29E*) revealed that they were matched on the variables of gender; age distribution; educational level; the ability to speak and understand English; position and number of years working for the company; and knowledge of anyone with a speech problem.

5.3.2 Inter-group comparison: Confidence and skill constructs: Pre-and-post questionnaires 1 and 2

The pre-and-post questionnaire 1 comprised a total of 21 questions (*Appendix 12*), with 20 closed-ended questions, and 1 open-ended question pertaining to the content of video scenario 1. Pre-and-post questionnaire 2 comprised a total of 15 questions (*Appendix 13*), with 14 closed-ended questions, and 1 open-ended question pertaining to the content of video scenario 2 (Table 4.6). Both sets of questionnaires were administered to the experimental and control group participants together, with a 1 month interval between administrations (Table 4.1).

In determining the impact of training on the experimental group participants (as compared with their control group counterparts), the following procedures were employed to examine their performance on the confidence and skill constructs of the pre-and-post questionnaires 1 and 2: The experimental and control groups' performances were compared on the confidence and skill constructs of pre-and-post questionnaires 1 and 2 respectively via the Mann-Whitney U Test. In addition, in order to take cognaissance of, and compensate for any pre-existing levels of confidence and skill in either of the 2 groups, the differences were calculated of the scores obtained on the confidence and skill constructs of the post-questionnaire minus the scores on the pre-questionnaires 1 and 2 respectively in both these groups over the 2 video viewings and questionnaire completions 1 month apart.

5.3.2.1 Comparison of the experimental and control groups' responses in pre-and-post questionnaires 1 and 2

Table 5.2 below shows the results obtained when the Mann-Whitney U Tests were used to compare the experimental and control groups' performance on the confidence and skill constructs of pre-and-post questionnaire 1 respectively.

Table 5.2 Pre-and-post questionnaire 1: Comparison of experimental and control group responses on the confidence and skill construct

	PRE-QUESTIONNAIRE				POST-QUESTIONNAIRE			
	Experimental Group (n=30)	**Control Group (n=33)**	**P-Value (Mann-Whitney U Test)**	**Effect Size**	**Experimental Group (n=29)**	**Control Group (n=30)**	**P-Value (Mann-Whitney U Test)**	**Effect Size**
Confidence Construct								
Mean	2.1917	2.0682	0.3115	0.27 small	2.2414	2.0667	**0.0682***	0.44 medium
SD	0.4389	0.4519			0.4198	0.3710		
Skill Construct								
Mean	1.7867	1.7545	0.7823	0.03 small	1.8759	1.7867	0.2834	0.27 small
SD	0.3702	0.4139			0.3651	0.4761		

* Significant at the 10% level of significance
Effect size: 0 – 0.2 = small effect size
0.2 -0.8 = medium effect size
> 0.8 = large effect size

Table 5.2 above illustrates that for pre-questionnaire 1, no significant difference was found between the experimental and control groups on the confidence and skill constructs. Both groups appeared to be relatively matched in their confidence and skill levels before the second session of the main study, when the experimental group participants had participated in a training session. In contrast, a significant difference was found at the 10% level on the confidence construct of the post-questionnaire only, reflecting a statistical increase in confidence amongst the experimental group participants. Specific items emphasizing this construct included greater confidence in serving this kind of customer and not wanting to avoid them; and feeling more comfortable in the presence of this individual even outside the work environment when, for example, sitting next to him on a bus or taxi.

Table 5.3 below shows the results gathered when the Mann-Whitney U Test was used to compare the experimental and control groups' performance on the confidence and skill constructs of pre-and-post questionnaire 2 respectively.

Table 5.3 Pre-and-post questionnaire 2: Comparison of experimental and control group responses on the confidence and skill construct

	PRE-QUESTIONNAIRE				POST-QUESTIONNAIRE			
	Experimental Group (n=30)	**Control Group (n=33)**	**P-Value (Mann-Whitney U Test)**	**Effect Size**	**Experimental Group (n=29)**	**Control Group (n=30)**	**P-Value (Mann-Whitney U Test)**	**Effect Size**
Confidence Construct								
Mean	2.5133	2.3818	0.1090	0.30 medium	2.5724	2.3133	**0.0286*** **	0.51 medium
SD	0.5138	0.3653			0.5035	0.5029		
Skill Construct								
Mean	2.3143	2.0346	**0.0206*** **	0.68 medium	2.4926	2.0857	**0.0001** **	1.11 large
SD	0.3322	0.4630			0.3319	0.3945		

** Significant at the 1% level of significance
*** Significant at the 5% level of significance
Effect size: 0 – 0.2 = small effect size
> 0.2 -0.8 = medium effect size
> 0.8 = large effect size

Table 5.3 above shows how a significant difference was found at the 5 % level (with medium effect size difference) between the experimental and control groups on the skill construct of pre-questionnaire 2. This finding indicates that the experimental group already appeared to be more skilled than the control group participants before they had received training. Results from the administration of post-questionnaire 2 indicated that the experimental group was more confident on the 5% level of significance, and more skilled on the 1 % level of significance (with a large effect size difference between them and the control group participants).

Specific items highlighting the confidence construct included greater confidence within the experimental group participants when approached by this customer and in serving her without wanting to avoid her; in attending to her needs without calling other colleagues to assist her; and feeling more comfortable in the presence of this individual even outside the work environment when, for example, sitting next to her on a bus or taxi. On the skill construct, the experimental

group improved significantly in their understanding of the correct amount of time to spend in serving this kind of customer; recognizing the appropriateness of asking this kind of customer to either repeat or write her request down when she was not understood; acknowledging the customer's competence both to understand the communication interchange with the sales assistant, and to shop independently without someone helping her.

To further examine the association between the performance of the experimental and control group participants on the pre-and-post questionnaires 1 and 2, and taking cognisance of, and compensating for any pre-existing levels of confidence or skill in either the experimental or control groups, the groups were further compared with regard to the difference between the post-questionnaire score minus the pre–questionnaire score on each of the constructs of questionnaires 1 and 2 respectively. This was performed in order to determine more precisely the gain within the 2 groups on the confidence and skill constructs of these 2 questionnaires. The results are illustrated in Tables 5.4 and 5.5 below.

Table 5.4 Questionnaire 1: Difference between post-questionnaire score minus pre-questionnaire score on the confidence and skill constructs in the experimental and control groups

	Experimental Group	Control Group	P-value (Mann-Whitney U Test)	Effect Size
Confidence Construct				
MEAN	0.0536	0.0167	0.4379	0.07 small
SD	0.4376	0.5721		
Skill Construct				
MEAN	0.1357	0.0433	0.2083	0.27 small
SD	0.3734	0.3081		

Effect size: 0 – 0.2 = small effect size
0.2 -0.8 = medium effect size
> 0.8 = large effect size

Table 5.4 above and Table 5.5 below both reveal that in questionnaires 1 and 2 respectively, in both the confidence and the skill constructs, the experimental group gained more than the control group, even though this gain was not statistically significant. On questionnaire 2, the control groups' score was slightly lower when the differences were examined (mean = -0.0400),

indicating a reduction in confidence in this group over the questionnaire administrations. The above-described findings of larger gains in the experimental group may have been more significant had the sample size been larger.

Table 5.5 Questionnaire 2: Difference between post-questionnaire score minus pre-questionnaire score on the confidence and skill constructs in the experimental and control groups

	Experimental Group	Control Group	P-value (Mann-Whitney U Test)	Effect Size
Confidence Construct				
MEAN	0.0214	-0.0400	0.8562	0.11 small
SD	0.5613	0.5341		
Skill Construct				
MEAN	0.1990	0.0238	0.1400	0.41 medium
SD	0.4422	0.4111		

Effect size: 0 – 0.2 = small effect size
0.2 -0.8 = medium effect size
> 0.8 = large effect size

5.3.3 Inter-group comparison: Open ended questions: Pre-and-post questionnaires 1 and 2

A comparison was made of the experimental and control groups' responses to the open-ended questions on pre-and-post questionnaires 1 and 2 (*Appendix 12 & 13*), where all participants were asked to write in their own words what they would have done differently if they had been serving the same customer as seen in video scenarios 1 and 2 respectively. Their responses were then categorized and compared. Any amount of information could be provided, so that some participants gave only one suggestion, while others made several.

On *open-ended question 21* (pre-post questionnaire 1), many of the participants in both the experimental and control groups provided a range of suggestions which in both groups overall reflected a prominent emphasis on the need to follow company policy, with many participants recommending the need to accompany the customer to a quieter place in the store in order both to understand his request, and assist him more patiently. Similarly, on *open-ended question 15*

(pre-post questionnaire 2), many of the participants in both the experimental and control groups provided a range of suggestions which in both groups overall reflected a prominent emphasis on the need to follow company policy; and to be polite to this kind of customer so that she would want to return to the store again. Similar numbers of participants in both groups suggested asking the customer to write down what she was saying to clarify her request. In addition, the suggestions overall reflected a critical attitude towards the manner in which the sales assistant in the video dealt with the customer, together with the frequent suggestion to serve this customer "as queen…with the heart, and the five unbreakable promises"- referring here specifically to store policy, and reflecting in-store training received by the participants. Only 1 control group participant on the pre-questionnaire recommended the need for further training to serve this kind of customer, while 3 control group participants made the same recommendation on post-questionnaire 2. One of these participants stated "we need urgent training" and another participant stated that "If I had been given proper training about such customers I think I should have coped well with her." No experimental group participants recommended the need for further training in this question on either the pre-or-post questionnaires.

5.4 Intra-group results

The following section will present the results obtained within the experimental and control groups in relation to the confidence and skill constructs of pre-and-post questionnaires 1and 2.

5.4.1 Intra-group comparison: Pre-and-post questionnaires 1 and 2: Confidence and skill constructs

The Wilcoxin test was employed to examine a within-group comparison of scores obtained for the confidence and skill constructs of the pre-and-post questionnaires 1 and 2 respectively.

5.4.1.1 Pre-and-post questionnaires 1 and 2: Experimental group

Table 5.6 below demonstrates how a statistically significant improvement was found within the experimental group at the 5 % level on the skill construct of both pre-and-post questionnaires 1 and 2.

Table 5.6 Comparison of experimental group results on the confidence and skill constructs of pre-and-post questionnaires 1 and 2

Pre-post questionnaire				Pre-post questionnaire 2			
	Experimental Group	**P-Value (Wilcoxin)**	**Effect Size**		**Experimental Group**	**P-Value (Wilcoxin)**	**Effect Size**
Confidence Construct				**Confidence Construct**			
MEAN	0.0536	0.4442	0.07 small	MEAN	0.0214	0.8069	0.13 small
SD	0.4376			SD	0.5613		
Skill Construct				**Skill Construct**			
MEAN	0.1357	**0.0443*** **	**1.92 large**	MEAN	0.1990	**0.0288*** ** significance	**1.42 large**
SD	0.3734			SD	0.4422		

*** Significant at the 5% level of significance
Effect size: 0 – 0.2 = small effect size
> 0.2 -0.8 = medium effect size
> 0.8 = large effect size

5.4.1.2 Pre-and-post questionnaires 1 and 2: Control group

In contrast, examination of *within control group* comparison of scores obtained on the confidence and skill constructs of pre-and-post questionnaires 1 and 2 revealed no statistically significant differences for either of these constructs in the pre-and-post questionnaires 1 and 2 respectively (Table 5.7). Closer examination of Table 5.7 reveals how the participants' confidence levels reduced on pre-post questionnaire 2 (mean = -0.0400).

Table 5.7 Comparison of control group results on the confidence and skill constructs of pre-and-post questionnaires 1 and 2

Pre-post questionnaire 1				Pre-post questionnaire 2			
	Control Group	**P-value (Wilcoxin)**	**Effect Size**		**Control Group**	**P-value (Wilcoxin)**	**Effect Size**
Confidence Construct				**Confidence Construct**			
MEAN	0.0167	0.8229	0.18 small	MEAN	-0.0400	0.6503	0.41 medium
SD	0.5721			SD	0.5341		
Skill Construct				**Skill Construct**			
MEAN	0.0433	0.4217	0.26 medium	MEAN	0.0238	0.7443	0.32 medium
SD	0.3081			SD	0.4111		

Effect size: 0 – 0.2 = small effect size
> 0.2 -0.8 = medium effect size
> 0.8 = large effect size

5.5 Summary

The current chapter organized, analyzed and described the results of the research as they relate to the main aim of the research (in particular sub-aim 3). It commenced with an examination of the results of specific subjective measures examined within the experimental group before and after their once-off 4 hour long training session. This was then followed by a presentation and comparison of the inter-and-intra-group results of the experimental and control group participants on the confidence and skill constructs of pre-and-post questionnaires 1 and 2 (that were administered to them with a gap of 1 month in between).

Subjective training session evaluations by the experimental group participants were consistently highly rated, reflecting the active participation that was observed by the researcher and training assistants in all participants throughout the training session. Additionally, a concomitant increase was found in this group in terms of their pre-and-post training confidence ratings.

Inter-group comparison on the confidence and skill constructs of pre-and-post questionnaires 1 and 2 revealed the following:

- On *pre-and-post questionnaire 1*: No statistically significant difference was found between the experimental and control groups on these constructs on the pre-questionnaire administration; however, a statistically significant difference was found in the experimental group at the 10% level (with medium effect size) on the confidence construct of post-questionnaire 1.
- On *pre-and-post questionnaire 2*: A statistically significant difference was found at the 5% level in the experimental group (with medium effect size) on the skill construct in the pre-questionnaire administration. Results from the administration of post-questionnaire 2 indicated that the experimental group was more confident on the 5% level of significance, and more skilled on the 1% level of significance (with a large effect size difference between them and the control group participants on this construct).
- To examine more precisely the association between the performance of the experimental and control group participants on the confidence and skill constructs of the pre-and-post questionnaires 1 and 2, and to determine the amount gained within the 2 groups on the 2 questionnaires administered, the groups were further compared with regard to the difference between the post-questionnaire score minus the pre-questionnaire score on each of the constructs of questionnaires 1 and 2 respectively. The results revealed that while not statistically significant, the experimental group participants gained more than the control group in confidence and skill on both questionnaires. In addition, the control group revealed a reduction on the confidence construct on questionnaire 2.
- Responses by both the experimental and control groups to open-ended questions 21 and 15 (of pre-and-post questionnaires 1 and 2 respectively) were categorized and compared. Many of the responses in both groups reflected comparable answers related to customer service and care. Only the control group participants made several suggestions for the need for further training with regard to the customer in video scenario 2 (on question 15 (pre-and-post questionnaire 2)).

Intra-group comparison of results likewise revealed a statistically significant increase in the experimental group only on the skill constructs of both pre-and-post questionnaires 1 and 2 respectively. These results will be discussed and considered in detail in the following chapter.

CHAPTER 6

DISCUSSION OF RESULTS

6.1 Introduction

The following chapter will describe, and consider the reasons for the similarities and differences between the experimental and control groups' performance on the confidence and skill constructs of pre-and-post questionnaires 1 and 2. Factors are considered that were controlled for in the research. The possible role played by the demographics of the experimental and control groups, in relation to the interpretation of the content of the video scenarios 1 and 2, is discussed. These results will then be interpreted more broadly in relation to the relevant literature that formed the conceptual basis for this research.

6.2 Inter-group results: Pre-and-post questionnaires 1 and 2: Confidence and skill constructs

When examining and comparing the similarities and differences between the experimental and control groups' performance on the confidence and skill constructs of the pre-and-post questionnaires 1 and 2, no contradictory evidence was found in any of the measures used. All results obtained consistently pointed to the improvement within the experimental, as compared to the control group on the post-questionnaires as compared with the pre-questionnaires. This pointed to the impact of the training session on their confidence and skill in identifying barriers to, and facilitators of interaction with customers with a cognitive-communication disorder following a TBI (Table 5.2 and 5.3).

With reference to the *confidence construct*, Tables 5.2 and 5.3 illustrate how on both post-questionnaires 1 and 2, the experimental groups' confidence improved in feeling significantly more comfortable and self assured about interacting with, and serving this kind of customer on their own. Such customers may have a range of cognitive-communication problems that may potentially create attitudinal barriers for them within the retail encounter (Tables 4.2; 4.3; and 4.4). This finding (reflecting confidence in serving the customer on one's own) contrasted with both video scenarios, where the sales assistants approached by the customers called in several colleagues (including management) to understand and assist the customer appropriately.

Experimental group participants became more confident at the 10% level on post-questionnaire 1; and at the 5% level on post-questionnaire 2, as compared with their results on both pre-questionnaire administrations, where neither experimental nor control group performed statistically significantly on this construct.

When examining the results on the *skill construct* (Tables 5.2 and 5.3 respectively), it is evident that neither group performed statistically significantly on either the pre-or-post questionnaire 1 administration. In contrast, the experimental group was found to be already statistically significantly more skilful at the 5% level on the skill construct of pre-questionnaire 2 (before training) in identifying barriers to, and facilitators of interaction with this given type of customer. In addition, they became even more skilful at the 1% level of significance after the administration of post-questionnaire 2 (following their once-off training session), with respect to their ability to recognise the correct amount of time to spend with this customer, and the appropriateness of asking her to repeat her request, or write something down (as her speech was hard to understand). The participants were also able to recognise the competence of the customer shown in the video scenario, in spite of her relatively unintelligible dysarthric speech.

The finding that the experimental group was statistically significantly more skilful at the 5% level than their control group counterparts on pre-questionnaire 2 (before they received training) (Table 5.3) is surprising in view of the effort by the researcher to take the following factors into account:

- All participants were randomly assigned to the experimental and control groups, and were matched on variables of gender; age distribution; educational level; the ability to speak and understand English; position and number of years working for the company; and knowledge of anyone with a speech problem (Table 4.11).
- All participants were further matched in that they all worked in stores within the Northern region of the large supermarket chain, and received ongoing, nationally-formulated in-store training provided to all company employees across all the regions. This focused largely on customer care and service as part of the company ethos (Ackerman, 2005).
- The participants viewed video scenarios 1 and 2 (Table 4.6) together and in the same sequence during the pre-and-post administration sessions 1 and 3 of the main study (Table 4.1).

- In order to minimise the Hawthorne effect (Adair, 1984; Mertens, 1998; Sohlberg et al., 1998), the same pre-questionnaire instructions were provided by the researcher to the combined groups of participants in session 1 (*Appendix 14*), who were given no prior knowledge that any further training would take place. Experimental group participants were only informed after completing pre-questionnaires 1 and 2 that they would be returning 2 weeks later for another session. All participants were, however, informed that the researcher was from the University of Pretoria and that they were participating in a research project, which may potentially have influenced their performance. Adair (1984) refers to numerous variables mediating the Hawthorne effect including among others: prestige stemming from being selected; special attention (being in an experimental group) heightening attention to the task; and clear performance expectations. To further minimise this Hawthorne effect, all participants were informed that there were no correct or incorrect answers before completing the pre-and-post questionnaires.

Two factors that could potentially have contributed to the experimental group being statistically significantly more skilful in the pre-questionnaire 2 administration, while not statistically significantly more skilful in the pre-questionnaire 1 administration, include the following:

- In spite of the experimental and control groups being matched, practical circumstances arose in session 1 that led to changes in the anticipated composition of the experimental and control groups, where the experimental group comprised more CSM's (13) than the control group (8), but fewer Deli and Bakery sales assistants (7), as compared to 14 in the control group (*Appendix 29A*). While not a statistically significant difference, this nevertheless skewed the experimental group in terms of containing more participants with more advanced in-store training levels, focusing very specifically on the company's core values related to excellent and courteous customer service (Ackerman, 2005). Although this demographic may have contributed to the experimental group participants being more skilful as compared with their control group counterparts (even before training) when viewing video scenario 2, this same factor did not contribute to the former's results when viewing video scenario 1 for the first time. However, in relation to this distribution of experimental and control group participants, closer examination of the content of the video scenarios may account for this differential finding.
- Both video scenarios 1 and 2, while reflecting different transactions, were considered to be representative supermarket interactions adequately highlighting the themes identified as universal barriers and facilitators during sales transactions involving a customer with a

TBI (Table 4.5). However, while video scenario 1 (The photo counter scenario) (*Appendix 9*) (that was shown before the administration of pre-and-post questionnaire 1), superficially presented an interaction with a customer requesting a particular spool at the photograph counter of the store, identification of barriers and facilitators by the research participants was clearly more complex for the following reasons: The scenario represented a very typical interaction concerning an individual with a TBI (Larkins et al., 2004; Milton et al., 1984; Prutting, 1982). From the outset, the "customer" requested an apparently scarce item that was unavailable in the store (an 800 ASA spool), and he lacked the insight to notice both the inappropriateness of the request, as well as the length of time taken by the manager and several sales assistants (15 minutes and 06 seconds) in trying to assist him with his request. The inappropriate pragmatics of his interpersonal communication (resulting from his cognitive-communication disorder) included, for example, over-familiarity with the manager, whom he teased about his name. He also asked the manager at various points in the lengthy interaction to give him items for nothing (e.g. a free Kodak photo album; a free camera); shouting loudly for service; together with his apparent lack of awareness of the growing discomfort of the manager and sales assistants who were unable to meet his requests. These examples comprised a cluster of behaviours that were sufficiently subtle and complex, making it difficult for the experimental and control group participants to identify the barriers to, and facilitators of the interaction with either confidence or skill in the pre-questionnaire administration. After the training session, the experimental group became more confident and less anxious in the presence of this kind of customer, although, when compared with their control group counterparts, they did not improve on the skill construct of this particular questionnaire (Table 5.2).

In contrast, video scenario 2 (The return counter scenario) (*Appendix 10)* that was shown before the administration of pre-and-post questionnaire 2, reflected an interaction where a customer with very dysarthric speech, and some accompanying physical difficulties, asked if she could return an expensive item, for which transaction, company policy required a till slip. Her speech was highly unintelligible to the 4 sales assistants and manager who tried to assist her, but in contrast to video scenario 1, this customer was pragmatically far more appropriate and insightful, and the issues requiring decisions by the research participants (in completing pre-and-post questionnaire 2) were more similar to the customer service scenarios with which they were specifically trained to deal in their in-store training. Thus the more experienced experimental group participants could

have used their experience and training to respond more skilfully (than their control group counterparts) in the pre-questionnaire 2 administration. Furthermore, the impact of the training session then improved their skill even more in the post-questionnaire administration, resulting in this group being significantly skilled at the 1% level of significance (Table 5.3) as compared with their control group counterparts.

Overall, the results of this study provided experimental support for the impact of a once-off 4 hour long training session in statistically significantly improving the confidence and skills of a group of sales assistants in identifying the barriers to, and facilitators of interaction with customers with a cognitive-communication disorder following a TBI. These results were further supported by the positive subjective training session evaluations and increased confidence ratings of this group, where many participants recommended that this kind of training be received "by all staff including management". As a result, the training session content (focusing on barriers and facilitators) assisted the experimental group participants in using their previous in-store training and experience (Mintzberg, 2004) to consider different and new solutions with greater confidence and skill.

It is important to examine the implications of this training session in relation to the results obtained. On the broadest level, the training session facilitating these outcomes reflected a shift in the training paradigm, that is, that rehabilitation professionals should develop collaborative networks of support across social contexts (as advocated by numerous authorities in the field including Simmons-Mackie et al., in press; Ylvisaker, 2002, 2003; Ylvisaker et al., 2001a; 2003). More specifically, this kind of training is seen to encompass a collaborative effort between the sales assistant and the customer with a TBI, building community capacity as advocated by Alant (2005b), and in so doing, potentially facilitating participation at a deeper level for the individual. This training also addressed the dearth of communication partner training programs (highlighted specifically in the field of TBI), and aimed at creating more facilitative and less barrier-filled communication opportunities for such individuals, potentially reducing the stigmatisation and marginalisation they faced (Cottrell, 2001; Sarno, 1986, 2004; Togher et al., 2004). Furthermore, the participation of the particular large supermarket chain in this diversity-focused training session, reflected the former's commitment to transforming company values regarding the possibility for change (Zander & Zander, 2000), and to the potential of becoming a role model and leader, and "*an employer of choice*" (Silver & Koopman, 2000, p.9), removing barriers in the workplace for their employees, by making it more comfortable for them to serve customers with a TBI. Such participation also reflected the spirit

of an Ubuntu approach (Bhengu, 1996; Mbigi & Maree, 1995) in which, through the removal of barriers, a more comfortable and respectful environment was potentially created for both the sales assistant and the customer with a TBI (Coats, 2003c; Codrington, 2003a).

Enhanced confidence, skill and comfort in interacting with customers with a TBI have been defined within the current research as positive constructs. Clearly, the training session reduced obstacles by empowering the sales assistant to identify barriers to, and facilitators of interactions with such a customer using increased confidence and skill. These outcomes were facilitated by means of opportunities provided in the training session to consider different and even new solutions with such customers, through integration of new insights in relation to established beliefs and experiences (Mintzberg, 2004; Silberman, 1990; Slavin, 1996). With regard to Alant's suggestion of a dynamic relationship between participation and skills (2005a), enhanced confidence, comfort, awareness and skill as a result of this training session would not only empower the sales assistant, but also provide support for the customer with a TBI that would enable the latter to participate more comfortably and successfully in an everyday encounter such as shopping (Alant, 2005b; Bhengu, 1996; Coats 2003c; Codrington, 2003a; Cottrell, 2001; Garcia et al., 2002; Kagan and LeBlanc, 2002; Kagan et al., 2001; Mbigi & Maree, 1995; Simmons-Mackie et al., in press; Togher et al., 2004).

6.3 Summary

Chapter 6 discussed the most important findings of the research in relation to relevant literature in the field. The outcome of the training session revealed good ratings by the experimental group participants. In addition, all results consistently pointed to the improvement within the experimental, as compared to the control group on both of the post-questionnaires as compared with the pre-questionnaire administrations, demonstrating the impact of the training session on their confidence and skill in relation to interacting with customers with a TBI. Differences in results between the 2 groups were considered in relation to the factors that were controlled for in the study, as well as by a closer examination of the video scenarios content themselves. The latter highlighted some interesting possibilities related to the impact of pragmatic difficulties on the interpersonal interaction of the sales assistants and customers with a TBI, making it more complex and challenging for the research participants to identify and manage. Overall, the training session empowered the sales assistants to provide support for their customers with a TBI, thereby facilitating the possibility for both the sales assistant and the customer to participate more comfortably in the sales encounter.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

"When the ripening period comes
We catapult
Into the waiting world
Like the seed of dry pods"
(Mahola, 1994, p.13)

7.1 Introduction

This chapter contains an overview of the conceptual rationale for the current research. It then provides a summary of the results of the study in relation to the development, refining and administration of two questionnaires and a training session, aimed at increasing the confidence and skill of sales assistants in identifying the barriers to, and facilitators of interactions involving customers with a cognitive-communication disorder following a TBI. Conclusions are provided which advocate the implementation by companies today of training modules empowering their employees with greater understanding of these matters. A detailed critical evaluation, including a consideration of limitations of the study follows. Finally, recommendations are made for future research.

7.2 Overview of rationale for study and summary of results

Conceptual shifts within the rehabilitation context in relation to the individual with a neurogenic-based communication disorder (and in particular with a cognitive-communication problem following a TBI) were extended within the current research to incorporate transformations within the corporate context, with reference to customer service generally, and more specifically to training programs for individuals with a disability. In spite of the shifts identified in the rehabilitation context, advocating the fuller integration of individuals with disabilities into society (with a concomitant reduction of environmental and attitudinal barriers), only a limited number of published communication partner training programs are currently evident, in relation specifically to individuals with a TBI (Togher et al., 2004). This has resulted in the call for more training programs to be offered to these individuals and their partners so that they can manage

communication interactions across a number of different service encounters (Cottrell, 2001; Kagan et al., 2001; Simmons-Mackie et al., in press; Togher et al., 2004).

Similarly, when one examines the legislative changes worldwide, and in relation to the South African corporate environment specifically, in spite of the contemporary call for inclusion of diversity issues, very few companies are reportedly truly inclusive workplaces (Silver & Koopman, 2000), and they continue to be filled with many environmental and attitudinal barriers in relation to individuals with communication disabilities in particular. There is a dearth of training programs dealing with both the inclusion of employees with disability, as well as training regarding customers with disability generally, and a TBI specifically (Cottrell, 2001; Franklins disability awareness in a retail environment training manual, 2001; Silver & Koopman, 2000; Swart, 2001).

A combination of these transformations and gaps within the rehabilitation and corporate contexts comprised a cumulatively compelling rationale for the current study, where the notion of communication partner training was extended from within the traditional therapeutic environment to include the broader realm of everyday society (chapter 3, Figure 3.1). An experimental group of supermarket sales assistants were given a once-off 4 hour long training session aimed at changing their ability to identify barriers to, and facilitators of interaction involving customers with cognitive-communication disorders following a TBI. Data for the development of the training session were obtained during the pre-experimental phase, by undertaking a needs analysis based on input from various stakeholder focus groups. This input, in combination with a review of relevant literature in both the rehabilitation and corporate contexts, resulted in the development and refinement of video scenarios, and of 2 pre-and-post questionnaires to accompany their viewing during the main study. A pilot study was conducted in a different region of the supermarket chain from the main study, with minor revisions being made before implementing the training session.

The main study comprised 3 sessions which took place in the participating supermarket chains' support office in Pretoria over a 1 month period, with 2 week intervals between each session. The pre-and-post questionnaire administration sessions comprised the experimental and control groups combined, while the training session comprised the experimental group only. Here the researcher was assisted by a research assistant with a TBI.

The results overall reflected the impact of training on the experimental group in the following ways:

- Training session evaluations were consistently highly rated, reflecting the active participation that was observed in all participants throughout the training session.
- All results obtained consistently pointed to the improvement within the experimental as compared to the control group on the post-questionnaires as compared with the pre-questionnaires. This illustrated the impact of the training session on participants' confidence and skill in identifying barriers to, and facilitators of interaction with customers with a cognitive-communication disorder following a TBI. Customized components of the training session considered to facilitate this impact included the use of meaningful video material; collaboration with a research assistant with a TBI; and the integration of adult learning principles together with stimulating and relevant material for the participants to consider actively.

Overall, the results of this research support the conclusion that it would be timeous for companies interested in expanding the concept of customer service to include an acknowledgement of, and response, to customers with disability. These comprise boundary shifts in standard business and social practice that take "dedication, a leap of faith and practicing to get them into your repertoire" (Zander & Zander, 2000, p.5). Businesses that are willing to train and empower their employees regarding how to interact with greater understanding and awareness with individuals with a cognitive-communication problem following a TBI, will potentially become model organizations, socially responsible systems committed to reducing some of the societal barriers facing their consumers (Simmons-Mackie et al., in press). The possibility exists for the "intentional ongoing dissolution of the barriers that divide us" (Zander & Zander, 2000, p.194), facilitating potentially deeper participation (Alant 2005a) for both the employee, and the customer with a TBI.

7.3 Evaluation of study including limitations

- The current research comprised an innovative preliminary effort to deal with the apparent paucity of communication partner training programs specifically designed for individuals with a TBI, through extending this concept from within the traditional therapeutic environment to include the broader realm of everyday society.

- The support of a large South African retail company in participating in this research reflects its willingness to be a corporate leader in empowering its staff to provide communicative access when serving customers with communication disorders in particular. This support was evidenced through their commitment to the co-ordination required to select the participants, provide them with sufficient time off work, and the transport necessary for them to attend the relevant sessions of the main study over a 1 month period.
- A service encounter such as a supermarket shopping interaction was considered to be a relevant environment to contextualize the current research, since a significant number of everyday communication exchanges take place in such a setting. The possibility of generalizing this research to other contexts, and across a cross-section of individuals with a range of communication disorders remains.
- Efforts were made to control for, or minimize the Hawthorne effect by informing both groups that there were no correct or incorrect answers to the pre-and-post questionnaires 1 and 2, before they were completed. In addition, the experimental group was only informed of the plan for them to participate in a training session after they had completed the pre-questionnaires 1 and 2. However, all participants were informed that they were participating in a University research project, which may have affected their performance.
- In the formulation of the reliability of the confidence and skill constructs (defined in Table 4.8), an item analysis was performed on both questionnaires, and certain questions removed, in view of the experimental and control group participants giving the preferred answers following their first exposure to video scenarios 1 and 2 (chapter 4, Section 4.3.1.2 (v) a). This comparable result in both groups was considered to reflect the impact of their exposure to relevant and meaningful custom-made video material, in relation to their prior experience and knowledge, before the administration of pre-questionnaires 1 and 2 respectively.
- While pre-and-post questionnaires 1 and 2 were found to address the ability of the participants to identify barriers to, and facilitators of interactions involving customers with a TBI, future research may reveal that the more powerful areas of impact and change might need to be measured by means of further refinement of the questionnaires, to include measuring real-life sustainable translation of this knowledge and impact as well (Alant, 2005a).

- Various sources were used to assist the researcher in compiling the training session in order to make it theoretically sound and authentic. Authenticity was ensured by conducting a needs analysis during the pre-experimental phases in order to obtain input from 2 focus groups comprising customers with a TBI (Table 4.2); 1 focus group with sales assistants in a separate region from that of the supermarket participating in the main study (Table 4.3); as well as experts working with individuals with TBI both locally and internationally (Table 4.4). A sound theoretical base was constructed by means of reviewing relevant literature in both the rehabilitation and corporate contexts, as well as communicating personally not only with experts in the field of neurogenic communication disorders (*Appendix 1A; 1C and 1D*); but also with several local corporate consultants (*Appendix 1B*). This combined input expanded the initial focus of the study from the ICF (WHO, 2001) framework into the training session format used in the main study (*Appendix* 21), which focused on training a group of sales assistants to alter in their confidence and skills from being a barrier to a facilitator in the retail service encounter.
- The training session was consensually evaluated by all experimental group participants as good (Table 5.1). This was further corroborated by the researcher and research assistants' observations of these participants' full involvement throughout the 4 hour training session within the small groups, as well as in interaction with the researcher, the research assistant with a TBI, and at appropriate times with all the group participants combined.
- The training session employed a number of customized components that were specifically developed for, and incorporated in the main study, which were considered to be powerful contributors to the positive outcome of the study. These, together with the effect of incorporating principles extrapolated from adult learning (that were likewise considered to influence these outcomes), will be described in turn.

7.3.1 *Video scenarios*

- The training session made extensive use of customized video material professionally produced and refined during the pre-experimental phase. These videos comprised real interactions of individuals with a TBI inside a supermarket during operating hours, and were considered to be as realistic simulations of these interactions as was possible, given the fact that the sales assistants were told in advance that they were going to be videotaped. This information may potentially have affected the representativeness of

the actions of the sales assistants being videotaped, although they all appeared unconcerned about this (Table 4.5).

- Several customers with a TBI were used to produce the videos. They represented a diverse range of individuals with a TBI with various cognitive-communication disorders that in more obvious and/or subtle ways impacted on the communicative interaction with the sales assistant.
- Use of key questions in reference to these video scenarios systematically and powerfully focused the groups' attention on a diverse and representative range of sales interactions. Opportunities were provided for considering and discussing possible solutions with different kinds of customers with a TBI, thereby increasing the participants' confidence and skill in identifying the barriers and facilitators during sales transactions involving such customers. In so doing, the second sub-aim of the current study was targeted.
- Different video scenarios were used during training from the ones used in conjunction with the administration of the 2 pre-and-post questionnaires (Table 4.6), in order to combat over-familiarity and boredom with the material amongst the research participants, and also to stimulate problem-solving within the group (Bornman, 2001).

7.3.2 *Research assistant with a TBI*

- The positive subjective evaluations of the training session (reflected in Table 5.1) were facilitated via collaboration with a research assistant with a TBI, who exposed the experimental group participants firsthand to the personal perspective of such an individual.
- Several participants commented that meeting the research assistant was "unforgettable" and "a great opportunity to learn so much from him." The opportunity to interact with, and ask questions of him was clearly informative and educational for the participants, and powerful in both encouraging the shifting of previous attitudes, and fostering new learning. Collaboration with individuals with a disability, and who are the subjects of the research has likewise been advocated by Krogh & Lindsay (1999); Mertens (1998); Oliver (1992); Silberman (1990); and Sohlberg et al. (1998).
- The researcher assisted the research assistant in systematically focusing his script (to be used in the training session) as succinctly as possible regarding the impact of a TBI specifically in relation to the shopping experience (*Appendix 20*). His first independent

efforts were verbose and insufficiently cohesive to make the necessary impact on the experimental group participants within a specific time period.

- The research assistant's comments regarding his collaboration with the researcher reflected his belief that it was a productive and clearly empowering process (Ylvisaker & Feeney, 1996, 1998b, 1998c, 1998d, 1998f, 2000, 2001; Ylvisaker & Holland, 1985; Ylvisaker et al., 2003). Furthermore, his actual participation in the training process was considered a very worthwhile and challenging experience by the research assistant, who stated that "I wish more companies would invite me to teach them about living with a TBI."

7.3.3 Principles of adult learning

A range of adult learning and diversity awareness principles were incorporated into the training session. These were considered to contribute to the positive outcomes of the current study, and included the following:

- An interactive, participation-based small-group training format was used incorporating principles advocated by Bornman (2001); Caffarella (1994); Franklin's disability awareness in a retail environment training manual (2001); Kagan and Shumway (2003a); Mayo and DuBois (1987a, 1987b, 1987c, 1987d, 1987e, 1987f, 1987g); Silberman (1990); Togher et al. (2004); and Wastell (1995), in order to promote co-operative learning (Slavin, 1996). The use of a small group format was also considered valuable in providing an opportunity for participants to share and debate concepts among one another, let go of misconceptions, and consider other solutions for discussion with the group as a whole, resulting in "cognitive restructuring" for the participant (Slavin, 1996, p.50).
- The inclusion of the diversity awareness fable *The Giraffe and the Elephant* (Roosevelt Thomas (with Woodruff), 1999c) (*Appendix 22*) as a metaphor for humans in the workplace specifically (but with implications for appropriate consideration within the supermarket environment), was considered stimulating, and highly relevant to the aims of the current study. Specific questions concerning the fable were presented to the experimental group participants for discussion, encouraging them to expand the breadth of their thinking regarding the range of potential customers they might need to serve, who might be more challenging, and might require various accommodations in order to facilitate a more pleasant and successful sales interaction for both the customer and the sales assistant.

- Both the research assistant with a TBI, and the diversity awareness fable, *The Giraffe and the Elephant* (Roosevelt Thomas with Woodruff, 1999c) were introduced at the beginning of the training session in order to set the tone early on for the entire session, and to motivate and energise the participants (Napier & Gershenfeld,1983; Silberman, 1990).
- The training session was found to be well-paced and sequenced, containing a varied mix of activities to maintain group interest (Table 5.1). In addition, during the progressive slots of the training session, participants were encouraged to increasingly focus their awareness in considering the barriers and facilitators when serving customers with a TBI (from both the perspective of the sales assistant, as well as the customer with a TBI). This was achieved through a combination of small group discussion, together with interaction involving the research assistant with a TBI, and the group as a whole (Table 4.14) (Kagan & Shumway, 2003a, 2003g).
- Consistent use was made throughout the training session of repetition and revision of important material (supported by the use of handouts provided on the tables, and overhead transparencies), in order to further integrate the participants' thinking concerning the issues of barriers and facilitators within the retail environment, thereby internalising new learning concerning issues of personal significance to each participant (Bornman, 2001; Silberman, 1990; Slavin, 1996).
- In addition, material was consistently summarised for the participants by the researcher, who integrated the issues raised by the group into a list of *Do's and Don'ts* (Franklins disability awareness in a retail environment training manual, 2001) (*Appendix 23*), in order to facilitate enhanced confidence and skill when serving such customers (Silberman, 1990; Slavin,1996).

7.4 Recommendations for future research

Results revealed a variety of interesting and provocative trends. Preliminary answers, and many more questions were raised that will need to be answered in the following kinds of future research:

- Examine the sustainability of strategies learned in the current research by following up the same group of experimental group participants longitudinally, and re-administering the post-questionnaires 1 and 2, together with having the participants draw up their own list of *Do's and Don'ts* in relation to their serving such customers.

- Examine the confidence and skill of these participants in real life sales interactions in the stores serving customers with a TBI, including a subjective measure of the comfort and confidence of both the sales assistant and the customer.
- In order to determine how extensive this kind of training session needs to be to produce the most sustainable change, replicate and examine the components of the training session used in the main study by means of the following enlarged methodology. Create 3 larger groups of experimental participants where one group sees a video containing information about TBI; the second group meets an individual with a TBI; and the third group both watch a video and meets an individual with a TBI. Use sufficiently sensitive measurements to examine the impact of these 3 experimental conditions both immediately, and over time in their in-store interactions.
- Determine the impact of exposure to, and the influence of, the video material used in the current research by showing the experimental and control groups selected video scenarios accompanied by some general questions unrelated to the video content specifically. After a period of time, show the same group the identical videos followed by the same general questions.
- More specific research to determine the human impact of a research assistant with a TBI collaborating in the training, and to determine the sustainability of this input on the participants over time.
- Disability training modules comprising communication partner training programs should be implemented using larger samples of participants in order to obtain larger significance levels across a potentially wide range of service sectors, including for example::
  - Supermarkets (with differing types of in-service training being offered to their employees);
  - Various corporate sectors within the retail and service industry (including e.g. banking, clothing; pharmaceutical; travel; restaurants);
  - Government departments, and public and private health service sectors such as the police; schools and colleges; as well as medical and paramedical professionals.
- More focused and comprehensive skill-based communication partner training programs, where strategies learned can then be measured both post-training and longitudinally, in order to determine their sustainability across the range of above-described contexts, including the workplace. Partner training could include:
  - Awareness-raising and modification of attitudes towards the individual with a communication disorder.
  - Develop scripts comprising specific context-related skills and strategies (in relation to

interacting with individuals with a range of cognitive-communication disorders and potentially intrusive pragmatic disorders) in order to empower the communication partner, and provide support and access for the individual with a TBI both face-to-face, and even telephonically.

- Developing an empowering skill-based training program for individuals with a TBI who could likewise be trained using various scripts for different relevant life situations, thereby lessening barriers, and enhancing their access.
- Research measuring deeper participation (Alant, 2005a; Seligman, 2002) for the individual with a TBI and their communication partner, by examining this in relation to levels of specific information gained, or skills acquired by these individuals during training.

7.5 Summary

This chapter provided a conceptual rationale for the research undertaken, in which the needs of the rehabilitation and corporate contexts were combined into a training session for a group of sales assistants. This assisted them to identify the barriers to, and facilitators of interactions involving customers with a TBI. The success of this training session was specifically ascribed to the following factors: The collaboration with a research assistant with a TBI; the exposure to a range of custom-made professionally-produced in-store video scenarios; the use of diversity awareness material (Roosevelt Thomas (with Woodruff), 1999c), in combination with various adult learning principles which were considered to provide the participants with the opportunity for "experienced reflection" (Mintzberg, 2004, p.264). This training was facilitated by means of problem solving based on a range of realistic scenarios, where participants reframed previous assumptions, and integrated these new ideas regarding interactions involving customers with a TBI into their own pre-existing beliefs and experiences.The formulation of such a training session created the "possibility" (Zander & Zander, 2000) for more comfortable and effective participation by both the sales assistant and the customer with a TBI during sales transactions. By means of a critical evaluation of the research, combined with a discussion of the study's strengths and weaknesses, the validity of this study is established. Given the dearth of published programs in both the rehabilitation and corporate contexts which address the issue of communication partner training programs involving individuals with a TBI specifically, the groundwork has been laid for future more in-depth research to replicate, refine and expand the current study in various ways that could be generalized beyond this specific population of individuals with a communication disorder.

REFERENCES

Ackerman, R. (2002). *Hearing grasshoppers jump. The story of Raymond Ackerman*. Cape Town: David Philip.

Ackerman, R. (2005). *The four legs of the table: Raymond Ackerman's simple straight-forward formula for success*. Cape Town: David Philip.

Adair, J.G. (1984). The Hawthorne effect: A reconsideration of the methodological artefact. *Journal of Applied Psychology, 69*, 334-345.

Alant, E. (2001). Life-skill and employment training for young adults with mental disabilities. *S.A. Journal of Occupational Therapy*, *31(3)*, 3-8.

Alant, E. (2005a, March). *Intervention and sustainability: Some issues*. Paper presented at the13th Multi-professional AAC Research Indaba, University of Pretoria, Pretoria, South Africa.

Alant, E. (2005b). Support-based AAC intervention. In E. Alant, & L. Lloyd. (Eds.), *Augmentative and alternative communication and severe disabilities: Beyond poverty* (pp. 155-191). London: Whurr.

Alant, E., & Lloyd, L. (2005). Epilogue. In E. Alant, & L. Lloyd. (Eds.), *Augmentative and alternative communication and severe disabilities: Beyond poverty* (pp. 344-349). London: Whurr.

American Speech-Language-Hearing Association (1988). Role of speech-language pathologists in identification, diagnosis and treatment of individuals with cognitive-communicative impairments, 30, p. 79. Rockville, MD: Author.

American Speech-Language-Hearing Association (2001). Scope of practice in speech-language pathology. Rockville, MD: Author.

American Speech-Language–Hearing Association (in press). Roles of speech-language pathologists in the identification, diagnosis and treatment of individuals with cognitive-communication disorders. Position statement. *ASHA Supplement 25*.

Armstrong, B., & Togher, L. (2001, September). *Measuring functional communication in everyday contexts: treatment applications.* Workshop presented at the British Aphasiology Society Conference. Exeter: UK.

Avent, J. (2004). Reciprocal scaffolding treatment for aphasia. *ASHA Division 2: Neurophysiology and Neurogenic Speech and Language disorders*, *14(2)*, 15-18.

Barbian, J. (2003). Moving towards diversity. [Electronic version]. *Training, 40 (Issue 2)*: 44-48.

Bedrosian, J.L., Hoag, L.A., & McCoy, K.F. (2003). Relevance and speed of message delivery trade-offs in augmentative and alternative communication. *Journal of Speech Language and Hearing Research*, *46*, 800-817.

Bhengu, M.J. (1996). *Ubuntu: The essence of democracy*. Cape Town: Novalis Press.

Booth, S., & Swabey, D. (1999). Group training in communication skills for carers of adults with aphasia. *International Journal of Language and Communication Disorders*, *34(3)*, 291-309.

Bornman, J. (2001). *The development of a primary level communication intervention protocol for children with severe disabilities*. Submitted in partial fulfilment of the requirements for the degree Philosopshiae Doctor in Augmentative and Alternative Communication. University of Pretoria, Pretoria.

Braga, L.W., Campos da Paz Junior, A., & Ylvisaker, M. (2005). Direct clinician-delivered versus indirect family-supported rehabilitation of children with traumatic brain injury: A randomized controlled trial. *Brain Injury*, *19(10)*, 819-831.

Bramley, B. (2003a). Permission to Innovate. TomorrowToday.biz. Retrieved March 28, 2004, from http://www.tomorrowtoday.biz/article 041.htm.

Bramley, B. (2003b). "Permission to Innovate." TomorrowToday.biz. Retrieved March 28, 2004, from http://www.tomorrowtoday.biz/article 002.htm.

Brotherson, M.J. (1994). Interactive focus group interviewing: A qualitative research method in early intervention. *Topics in Early Childhood Special Education*, *14(1)*, 101-118.

Brotherson, M.J., & Goldstein, B.L. (1992). Quality design of focus groups in early childhood special education research. *Journal of Early Intervention*, *16(4)*: 334-342.

Caffarella, R.S. (1994). *Planning programmes for adult learners. A practical guide for educators, trainers and staff developers*. San Fransisco: Jossey-bass Publishers.

Coats, K. (2003a). "A glimpse into the future- Good news/bad news for leaders." Tomorrow Today.biz. Retrieved March 28, 2004, from http://www. Tomorrow today.biz /article 034.htm.

Coats, K. (2003b). "Leadership for tomorrow." TomorrowToday.biz. Retrieved March 28, 2004, from http://www.tomorrowtoday.biz/article 019.htm.

Coats, K. (2003c). "Relationships – the economic return of the future." TomorrowToday.biz. Retrieved March 28, 2004, from http://www.tomorrowtoday.biz/article 011.htm.

Coats, K. (2003d). "13 Things smart leaders know- how to thrive in a relational economy." TomorrowToday.biz. Retrieved March 28, 2004, from http://www.tomorrowtoday.biz /article 023.htm.

Code, C., Simmons Mackie, N., Armstrong, E., Stiegler, L., Armstrong, J., Bushby, E, Carew-Price, P., Curtis, H., Haynes, P., McLeod, E., Muhleisen,V., Neate, J., Nikolas, A., Rolfe, D., Rubly, C., Simpson, R., & Webber, A. (2001). The public awareness of aphasia: An international survey. *International Journal of Language and Communication Disorders*, *36*, Supplement, 1-6.

Codrington, G. (2003a). Change has changed. TomorrowToday.biz. Retrieved March 28, 2004, from http://www.tomorrowtoday.biz/article 032.htm.

Codrington, G. (2003b). "Hunting season." TomorrowToday.biz. Retrieved March 28, 2004, from http://www.tomorrowtoday.biz/article 038.htm.

Codrington, G. (2003c). "Inviting your customer in: The next level of customer service." TomorrowToday_.biz. Retrieved March 28, 2004, from http://www.tomorrowtoday.biz/article.htm.

Codrington, G. (2003d). "Relearn to relate." TomorrowToday.biz. Retrieved March 28, 2004, from http:// www.tomorrowtoday.biz/article042.htm.

Codrington, G. (2004). Expanding youth professionals, opportunities: The contribution that non-for-profit youth professionals can make in the corporate world. [Electronic version]. *Journal of Youth & Theology, Edition 2(2*), 1-10.

Coelho, C. Discourse analysis in traumatic brain injury. (1999). In S. McDonald, L. Togher, & C. Code (Eds.), *Communication disorders following traumatic brain injury* (pp.55-79). United Kingdom: Psychology Press.

Coelho, C.A., DeRuyter, F., & Stein, M. (1996). Treatment efficacy: Cognitive communicative disorders resulting from Traumatic Brain Injury. *Journal of Speech and Hearing Research*, *39(5*), S5-S17.

Coleman, A. Getting in on the act. [Electronic version]. Director, *Vol 56 (Issue 3*): 64-67. Retrieved November 11, 2003 from http://weblinks3.epnet.com/citation.asp?tb.

Cottrell, S. (2001). *How do lay people perceive individuals who have communication disabilities, and in particular, aphasia*? Unpublished dissertation submitted in partial fulfilment of the MSc in Clinical Communication Studies, Department of Language and Communication Science, City University, London.

Covey, S. (1992). *The 7 habits of highly effective people*. Great Britain: Simon & Schuster.

Covey, S. (2004). *The 8th habit: From effectiveness to greatness*. New York: Simon and Schuster.

Cruice, M., Worrall, L., Hickson, L., & Murison, R. (2003). Finding a Focus for Quality of Life with Aphasia: Social and Emotional health, and Psychological Well-being. *Aphasiology*, *17(4)*, 333-353.

Cummings, S.R., Stewart, A.L., & Hulley, S.B. (2001). Designing questionnaires and data collection instruments. In S.B. Hulley, S.R. Cummings, W.S. Browner, D. Grady, N. Hearst, & T.B. Newman (Eds.), *Designing clinical research: An epidemiologic approach* (2nd ed.) (pp. 231- 247). Baltimore: Williams & Wilkins.

Davis, G.A. (2000). *Aphasiology: Disorders & clinical practice.* MA: Allyn & Bacon.

Disabled People South Africa (DPSA) (2000). Retrieved May 3, 2004 from http://www.dpsa.org.za/documents_pocketguide.htm. Pocket Guide On Disability Equity: An empowerment tool (1st ed.).

Elman, R., Ogar, J., & Elman, S. (2000) Aphasia: awareness, advocacy and activism. *Aphasiology*, *14(5/6)*, 455-459.

Employment Equity Act *No 55 of 1998: Draft code of good practice: Key aspects of disability in the workplace*. Government Gazette No. 22209 (April 2001), Vol. 430. Pretoria, South Africa: Government Printers.

Feeney, T.J., & Ylvisaker, M. (2003). Context-sensitive behavioural supports for young children with TBI: Short-term effects and long-term outcomes. *Journal of Head Trauma Rehabilitation*, *18(1)*, 33-51.

Fine, M., & Asch, A. (1988). Disability beyond stigma: social interaction, discrimination and activism. *Journal of Social Issues*, *44*, 3-21.

Finkelstein, V. (1991). Disability: An administrative challenge. In M. Oliver (Ed.), *Social work, disabled people and disabling environments* (pp.19-39). London: Jessica Kingsley.

Fisher, J., Katz, L.A., Miller, K., & Thatcher, A. (2003). *South Africa at work*. Johannesburg: Witwatersrand Press.

Fox, L., & Sohlberg, M.M. (2000). Meaningful communication roles. In D.R. Beukelman, K.M. Yorkston, & J. Reichie (Eds.), *Augmentative and alternative communication for adults with acquired neurologic disorder* (pp.3-24). Baltimore: Paul Brookes.

Franklins disability awareness in a retail environment training manual. *(*2001). Sydney: Author.

French, S. (1994). What is disability? In S. French (Ed.), *On equal terms: Working with disabled people* (pp.3-16). London: Butterworth-Heinemann.

Frey, J.H., & Fontana, A. (1993). The group interview in social research. In D.L. Morgan (Ed.), *Successful focus groups. Advancing the state of the art* (pp.20-34). Newbury, England: Sage Publications.

Garcia, L.J., Laroche, C., & Barrette, J. (2002). Work integration issues go beyond the nature of the communication disorder. *Journal of Communication Disorders, 35(2*), 187-211.

Goffman, E. (1963a). *Behaviour in public places*. New York: Free Press.

Goffman, E. (1963b). *Stigma: Notes on the management of spoiled identity*. New York: Touchstone.

Grobler, P.A., Warnich, S., Carrell, M.R., Elbert, N.F., & Hatfield, R.D. (2002). *Human resource management in South Africa* (2nd ed.). London: Thomson Learning.

Halliday, M.A.K. (1994). An introduction to functional grammar. (2nd ed.). London: Edward Arnold.

Hammer, M. (2001). *The agenda: What every business must do to dominate the decade.* London: Random House.

Hirsch, F.M., & Holland, A.L. (2000). Beyond activity: Measuring participation in society and quality of life. In L. Worrall, & C. Frattali (Eds.), *Neurogenic communication disorders: A functional approach* (pp. 35-54). New York: Thieme.

Hoffart, N. (1991). A member check procedure to enhance rigor in naturalistic research. *Western Journal of Research Practice*, *13(4*), 522-534.

Holland, A.L. (1977).Some practical considerations in aphasia rehabilitation. In M. Sullivan, & M.S. Komers (Eds.), *Rationale for adult aphasia therapy* (pp.166-180). Nebraska, University of Nebraska Medical Centre.

Holland, A.L. (1982). When is aphasia aphasia? The problem of closed head injury. In R.W. Brookshire (Ed.), *Clinical Aphasiology Conference Proceedings*, *14*, 345-349. Minneapolis, MN: BRK.

Holland, A.L. (2000). Self-determination and self-advocacy: New concepts for aphasic individuals and their partners. In L. Connor, & L. Obler (Eds.), *Neurobehaviour of language and cognition* (pp.109-116). Boston: Kluwer Academic.

Holland, A.L., & Hinckley, J.J. (2002). Pragmatic aspects of approaches to the treatment of aphasia. In A. Hillis (Ed.), *Handbook on adult language disorders: Integrating cognitive neuropsychology, neurology and rehabilitation* (pp. 413-428). New York: Psychology Press.

Holland, D., & Shigaki, C. (1998). Educating families and caretakers of traumatically brain injured patients in the new health care environment: a three phase model and bibliography. *Brain Injury*, *12(2*), 993-1009.

Hurst, R. (2003). The International Disability Rights Movement and the ICF (2003). *Disability and Rehabilitation*, *25(11-12*), 572-576.

Isaki, E., & Turkstra, L. (2000). Communication abilities and work re-entry following traumatic brain injury. *Brain Injury*, *14(5*), 441-453.

Jarvis, P. (1995). *Adult and continuing education theory and practice* (2nd ed.). London: Routledge.

Jordan, L. (1998). Diversity in aphasiology: A social science perspective. *Aphasiology, 12(6*), 474-480.

Jordan, L. (2001). Volunteers: The case for training revisited. *Acquiring Knowledge in Speech, Language and Hearing*, *3(3)*, 147-149.

Jordan, L., & Kaiser, W. (1996). *Aphasia: A social approach*. London: Chapman & Hall.

Kagan, A. (1995). Revealing the competence of aphasic adults through conversation: A challenge to health professionals. *Topics in Stroke Rehabilitation*, *2*, 15-28.

Kagan, A., & Gailey, G. (1993). Functional is not enough: Training conversation partners for aphasic adults. In A. Holland, & M. Forbes (Eds.), *Aphasia treatment: World perspectives* (pp.199-226). San Diego: Singular.

Kagan, A., & LeBlanc, K. (2002). Motivating for infrastructure change: Toward a communicatively accessible, participation-based stroke care system for all those affected by aphasia. *Journal of Communication Disorders*, *35*, 153-163.

Kagan, A., & Shumway, E. (2003a). *Talking to your case manager: Help your case manager to help you (An interactive resource for people and their health practitioners).* Toronto, Canada: Aphasia Institute.

Kagan, A., & Shumway, E. (2003b). *Talking to your counsellor or chaplain (An interactive resource for people and their health practitioners).* Toronto, Canada: Aphasia Institute.

Kagan, A., & Shumway, E. (2003c). *Talking to your doctor: Help your doctor to help you (An interactive resource for people and their health practitioners).* Toronto, Canada: Aphasia Institute.

Kagan, A., & Shumway, E. (2003d). *Talking to your nurse: Help your nurse to help you (An interactive resource for people and their health practitioners).* Toronto, Canada: Aphasia Institute.

Kagan, A., & Shumway, E. (2003e). *Talking to your occupational therapist: Help your occupational therapist to help you (An interactive resource for people and their health practitioners).* Toronto, Canada: Aphasia Institute.

Kagan, A., & Shumway, E. (2003f). *Talking to your physiotherapist: Help your physiotherapist to help you (An interactive resource for people and their health practitioners).* Toronto, Canada: Aphasia Institute.

Kagan, A., & Shumway, E. (2003g). Communicating with patients/ clients who know more than they can say: Introduction to Supported conversation for adults with Aphasia (SCA™). PowerPoint Educational Module 1 and 2. Toronto, Canada: Aphasia Institute.

Kagan, A., Black, S., Felson Duchan, J., Simmons-Mackie, N., & Square, P. (2001). Training volunteers as conversation partners using "Supported conversation for adults with Aphasia" (SCA): A controlled trial. *Journal of Speech, Language, and Hearing Research*, *44*, 624-638.

Katz, M. Marcia Katz on how to address the challenges of human differences at the workplace. [Electronic version]. *Business News New Jersey*, *11 (Issues16*), p.13. Retrieved April 3, 2004 from http://web4.epnet.com/DeliveryPrintSave.asp?tb = 1.

Kimchi, J., Polivka, B., & Stevenson, J.S. (1991).Triangulation: Operational definitions. *Nursing Research*, *40(6)*, 364-366.

Kotter, J.P., & Cohen, D.S. (2002). *The heart of change: Real life stories of how people change their organisations.* Boston: Harvard Business School Press.

Krogh, K.S., & Lindsay, P.H. (1999). Including people with disabilities in research: Implications for the field of augmentative and alternative communication. *AAC.*, *15(4)*, 222-233.

Krueger, R.A. (1988). *Focus groups: A practical guide for applied research*. California: Sage Publications.

Krueger, R.A., & Casey, M.A. (2000). *Focus groups: A practical guide for applied research*. California: Sage Publications.

Larkins, B.M., Worrall, L.E., & Hickson, L.M.H. (2000). Functional communication in cognitive communication disorders following traumatic brain injury. In L.E. Worrall, & C.M. Frattali (Eds.), *Neurogenic communication disorders: A functional approach* (pp. 206-219). Thieme: New York.

Larkins, B.M., Worrall, L.E., & Hickson, L.M.H. (2004). Stakeholder opinion of functional communication activities following traumatic brain injury. *Brain Injury*, *18(7)*, 691-706.

Leedy, P.D. (1993). *Practical Research: Planning and design*. New York: Macmillan Publishing Company.

Lewis, D., & Bridger, D. (2000). *The soul of the new consumer: Authenticity – what we buy and why in the new economy*. London: Nicholas Brealey.

LPAA Project Group: Chapey, R., Duchan, J., Elman, R., Garcia, L., Kagan, A., Lyon, J., & Simmons-Mackie, N. (February 2000). Life participation approach to aphasia: A statement of values for the future. *ASHA Leader,* 4-6.

Lubinski, R. (1981). Environmental language intervention. In R. Chapey (Ed.), *Language Intervention Strategies in Adult Aphasia* (pp.223-245). Baltimore, MD: Williams & Wilkins.

Lubinski, R. (1995). Environmental considerations for elderly residents. In R. Lubinski (Ed.), *Dementia and Communication* (pp. 297-315). Clifton Park, N.Y: Delmar.

Lubinski, R. (2001). Environmental systems approach to adult aphasia. In R. Chapey (Ed.), *Language Intervention Strategies in Aphasia and Related Neurogenic Communication Disorders* (4th ed.) (pp.269-296). Baltimore, MD: Lippincott Williams & Wilkins.

Lyon, J.G. (1989). Communicative partners: Their value in re-establishing communication with aphasic adults. In T. Prescott (Ed.), *Clinical Aphasiology*, *18*: 11-17. Austin, TX: Pro-Ed.

Lyon, J. G. (1992). Communication use and participation in life for adults with aphasia in natural settings: The scope of the problem. *American Journal of Speech Language Pathology*, *1*, 7-14.

Lyon, J.G., Cariski, D., Keisler, L., Rosenbek, J., Levine, R., Kumpula, J., Ryff, C., Coyne,S., & Blanc, M. (1997). Communication partners: enhancing participation in life and communication for adults with aphasia in natural settings. *Aphasiology*, *11(7*), 693-708.

Mahola, M. (1994). "I'm a man." In *Strange things*. Cape: Snailpress, p.13.

Majchrzak, A., & Wang, Q. (1998). Breaking the functional mind-set in process organisations. In D.Ulrich (Ed.), Delivering results: A new mandate for human resource professionals. Harvard Business Review: USA.

Mayo, G.D., & DuBois, P.H. (1987a). An evaluative inventory of training aids. In G.D. Mayo, & P.H. DuBois (Eds.), *The complete book of training: Theory, principles and techniques* (pp.107-144). San Diego: University Associates, Inc.

Mayo, G.D., & DuBois, P.H. (1987b). End products of evaluative studies. In G.D. Mayo, & P.H. DuBois (Eds.), *The complete book of training: Theory, principles and techniques* (pp.189-209). San Diego: University Associates, Inc.

Mayo, G.D., & DuBois, P.H. (1987c). Experimental studies in training. In G.D. Mayo, & P.H. DuBois (Eds.), *The complete book of training: Theory, principles and techniques* (pp.167-187). San Diego: University Associates, Inc.

Mayo, G.D., & DuBois, P.H. (1987d). Five steps in designing training. In G.D. Mayo, & P.H. DuBois (Eds.), *The complete book of training: Theory, principles and techniques* (pp.31-62). San Diego: University Associates, Inc.

Mayo, G.D., & DuBois, P.H. (1987e). Fourteen training formats. In G.D. Mayo, & P.H. DuBois (Eds.), *The complete book of training: Theory, principles and techniques* (pp.63-106). San Diego: University Associates, Inc.

Mayo, G.D., & DuBois, P.H. (1987f). Seventeen training principles. In G.D. Mayo, & P.H. DuBois (Eds.), *The complete book of training: Theory, principles and techniques* (pp.11-30). San Diego: University Associates, Inc.

Mayo, G.D., & DuBois, P.H. (1987g). Testing the effectiveness of training. In G.D. Mayo, & P.H. DuBois (Eds.), *The complete book of training: Theory, principles and techniques* (pp.145-166). San Diego: University Associates, Inc.

Mazaux, J.M., Masson, F., Levin, H.S., Alaoui, P., Maurette, P., & Barat, M. (1997). Long-term neuropsychological outcome and loss of social autonomy after traumatic brain injury. *Arch Phys Med Rehabil.*, *78*, 1316-1320.

Mbigi, L., & Maree, J. (1995). *Ubuntu: The spirit of African transformation management*. JHB: Knowledge Resources.

McCooey, R.T., Toffolo, D., & Code, C. (2000). A socio-environmental approach to functional communication in hospital-inpatients. In L.E. Worrall, & C.M. Frattali (Eds.), *Neurogenic communication disorders: A functional approach* (pp. 295-311). Thieme: New York.

McDonald, S., Togher, L., & Code, C. (1999). The nature of traumatic brain injury: Basic features and neuropsychological consequences. In S.McDonald, L.Togher, & C.Code (Eds.), *Communication disorders following traumatic brain injury* (pp.19-54). United Kingdom: Psychology Press.

McMillan, J.J., & Schumacher, S. (2001). *Research in education. A conceptual introduction.* N.Y.: Longman.

Mentis, M., & Prutting, C.A. (1987). Cohesion in the discourse of normal and head-injured adults. *Journal of Speech and Hearing Research*, *30*, 88-98.

Mertens, D.M. (1998). Research methods in Education and Psychology. London: Sage.

Milton, S., Prutting, C.A., & Binder, G. (1984). Appraisal of communicative competence in head injured adults. *Clinical Aphasiology Conference Proceedings, Seabrook Island, South Carolina* (pp.114-124). Minneapolis: BRK.

Mintzberg, H. (2004). *Managers not MBA's*. Prentice Hall: London.

Napier, R.W., & Gershenfeld, M.K. (1983). *Making groups work: A guide for group leaders*. Boston: Houghton Mifflin.

Nell, V., & Brown, D.S.O. (1990). Epidemiology of traumatic brain injury in Johannesburg: Morbidity, mortality and etiology. *Health Psychology Unit Technical Report No 1*: UNISA and HSRC.

Oakley-Smith, T. (2004, July 19). Equity plans are dismally ineffective. Comment in *The Star Newspaper*, p.8.

Oliver, M. (1992). Changing the social relations of research production? *Disability, Handicap and Society*, *7*, 101-114.

Oliver, M. (1996). *Understanding disability: From theory to practice*. London: Macmillan.

Parr, S. (1996). Everyday literacy and aphasia: Radical approaches to functional assessment and therapy: Clinical Forum. *Aphasiology*, *10*, 469-503.

Parr, S., & Byng, S. (1998). Breaking new ground in familiar territory: A comment on "Supported Conversation for adults with aphasia," by Aura Kagan. *Aphasiology*, *12*, 847-850.

Parr, S., Byng, S., & Gilpin, S. (with Ireland, C.). (1997). *Talking about aphasia. Living with loss of language after stroke.* London: Open University.

Parsons, G., Elkins, J., & Sigafoos, J. (2000). Are people with intellectual disabilities just another customer? Interviews with business owners and staff. *Mental Retardation*, *38(3)*: 244-252.

Pascale, R.T., Millemann, M., & Gioja, L. (1998). Changing the way we change. In D. Ulrich (Ed.), *Delivering results: A new mandate for human resource professionals*. USA: Harvard Business Review.

Pearsall, J. (Ed.). (1998). *The new Oxford dictionary of English* (1st ed.).Oxford: Oxford University Press.

Penn, C. (2000). Paying attention to conversation. *Brain and Language*, *71*, 185-189.

Penn, C., & Cleary, J. (1988). Compensatory strategies in the language of closed head injured patients. *Brain Injury*, *2(1)*, 3-17.

Penn, C., & Jones, D. (2000). Functional communication and the workplace: A neglected domain. In L. Worrall, & C. Frattali (Eds.), *Neurogenic communication disorders: A functional approach* (pp.103-124). New York: Thieme.

Peshkin, A. (1993). The goodness of qualitative research. *Educational Researcher*, *22*, 23-29.

Pieces of the puzzle : An Introduction to Brain Injury. (1999). Instructional video. University Hospital School: Iowa.

Pound, C., Parr, S., Lindsay, J., & Woolf, C. (2001a). Breaking down the barriers. In Pound, C., Parr, S., Lindsay, J. & Woolf, C. *Beyond aphasia: Therapies for living with a communication disability* (pp.126-177). UK: Speechmark.

Pound, C., Parr, S., Lindsay, J., & Woolf, C. (2001b). Developing therapies for living with communication disability. In Pound, C., Parr, S., Lindsay, J., & Woolf, C. *Beyond aphasia: Therapies for living with a communication disability* (pp.1-32). UK: Speechmark.

Pound, C., Parr, S., Lindsay, J., & Woolf, C. (2001c). Partnerships and practicalities: Groupwork, goal setting and evaluation. In Pound, C., Parr, S., Lindsay, J., & Woolf, C. *Beyond aphasia: Therapies for living with a communication disability* (pp.33-61). UK: Speechmark.

Prager, J.H. (1999, December 15). People with disabilities are next consumer niche. [Electronic version]. *Wall Street Journal.* Retrieved April 28, 2004 from ww.wcduke.com/wsj.html.

Prutting, C.A. (1982) Pragmatics as social competence. *Journal of Speech and Hearing Disorders*, *47*, 124-133.

Racino, J.A., & Williams, J.M. (1994). Living in the community: An examination of the philosophical and practical aspects. *Journal of Head Trauma Rehabilitation*, *9(2)*: 35-48.

Raymond, M. (2003). *The tomorrow people: Future consumers and how to read them.* London: Prentice-Hall.

Richards, M., and Richards, L. (2003). Consulting firms advise businesses on accessing the people-with-disabilities market. [Electronic version]. *Disability World, 15*. Retrieved April 23, 2004, from http://www.disabilityworld.org/09-10-02/employment/business3.shtml.

Roosevelt Thomas, Jr. R. (with Woodruff, M.). (1999a). *Building a house for diversity.* New York: Amacom.

Roosevelt Thomas, Jr. R. (with Woodruff, M.). (1999b). Diversity effectiveness: An overview. In Roosevelt Thomas, Jr. R. (with Woodruff, M.) (1999a). *Building a house for diversity* (pp.10- 21). New York: Amacom.

Roosevelt Thomas, Jr. R. (with Woodruff, M.). (1999c). The giraffe and the elephant. In Roosevelt Thomas, Jr. R. (with Woodruff, M.).(1999a). *Building a house for diversity* (pp.3-9). New York: Amacom.

Ruben, R. (2000). Redefining the survival of the fittest: Communication disorders in the 21st century. *The Laryngoscope*, *110*, 241-245.

Sarno, M.T. (1969). *The Functional Communication Profile: Manual of Directions*. New York: Institute of Rehabilitation Medicine.

Sarno, M.T. (1980).The nature of verbal impairments after closed head injury. *The Journal of Nervous and Mental Disease*, *168(11)*: 685-692.

Sarno, M.T. (1986, September 24). *The silent minority: The patient with aphasia*
The fifth annual James C. Hemphill Lecture. Rehabilitation Institute of Chicago.

Sarno, M.T. (1988). Head injury: Language and speech defects. *Scandinavian Journal of Rehabilitation Medicine*, *17*, 55-64.

Sarno, M.T. (1993). Aphasia Rehabilitation: Psychosocial and ethical considerations. *Aphasiology*, *7*, 321-334.

Sarno, M.T. (1997). Quality of life in aphasia in the first post-stroke year. *Aphasiology*, *11(7)*, 665-679.

Sarno, M.T. (2001). Foreword. In C. Pound, S. Parr, J. Lindsay, & C. Woolf (Eds.), *Beyond aphasia: Therapies for living with a communication disability* (pp.x-xi).UK: Speechmark

Sarno, M.T. (2004). Aphasia Therapies: Historical Perspectives and Moral Imperatives. In J. Felson Duchan, & S. Byng (Eds.), *Challenging aphasia therapies: Broadening the discourse and extending the boundaries* (pp.19-31). NY: Psychology Press.

Sarno, M.T., Buonagurao, A., & Levita, E. (1986). Characteristics of verbal impairment in closed head injured patients. *Archives of Physical Medicine and Rehabilitation, 67*, 400-405.

Sarno, M.T., Buonagurao, A., & Levita, E. (1987). Aphasia in closed head injury and stroke. *Aphasiology*, *1(4)*, 331-338.

Sarno, M.T., Silverman, M., & Levita, E. (1970). Psychosocial factors and recovery in geriatric patients with severe aphasia. *Journal of the American Geriatric Society*, *18(5)*: 405-409.

Saxby, H., Thomas, M., Felce, D., & De Kock, U. (1986). The use of shops, cafes and public houses by severely and profoundly mentally handicapped adults. *British Journal of Mental Subnormality*, *32*, 69-81.

Seligman, M.E.P. (2002). Positive Psychology, positive prevention, and positive therapy. In C.R. Snyder, & S.J. Lopez (Eds.), *Handbook of positive Psychology* (pp.3-9). UK: Oxford.

Sherer, M., Bergloff, P., Boake, C., High Jr. W., & Levin, E. (1998). The Awareness Questionnaire: factor structure and internal consistency. *Brain Injury*, *12(1)*, 63-68.

Silberman, M. (1990). *Active training: A handbook of techniques, designs, case examples & tips*. New York: Lexington Books.

Silver, R., & Koopman, B. (2000). *Successfully employing people with disabilities. Business for Good's focused guide to employment equity*. Sea Point: Business for Good.

Simmons-Mackie, N. (1998). A solution to the discharge dilemma in aphasia: social approaches to aphasia management. Clinical Forum. *Aphasiology*, *12*, 231-239.

Simmons-Mackie, N. (2000). Social approaches to the management of aphasia. In L.E. Worrall, & C.M. Frattali (Eds.), *Neurogenic communication disorders: A functional approach* (pp.162-187). Thieme: New York.

Simmons-Mackie, N. (2004). Using the ICF framework to define outcomes. ASHA *Division 2: Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders*, *14(1)*, 9-11.

Simmons-Mackie, N., & Kagan, A. (1999). Communication strategies used by "good" versus "poor" speaking partners of individuals with aphasia. *Aphasiology*, *13(9-11)*, 807-820.

Simmons-Mackie, N., Kagan, A., Christie, C.O., Huijbregts, M., McEwen, S., & Willems, J. (in press). Communicative access and decision making for people with aphasia: Implementing sustainable health care systems change.

Slavin, R.E. (1996).Research for the future. Research on cooperative learning and achievement: What we know, what we need to know. *Contemporary Educational Psychology, 21*, 43-69.

Snow, P., & Douglas, J. (1999). Discourse rehabilitation following traumatic brain injury. In S. McDonald, L.Togher, & C.Code (Eds.), *Communication disorders following traumatic brain injury* (pp.271-320). United Kingdom: Psychology Press.

Sohlberg, M.M. (October 2002). An overview of approaches for managing attention impairments. *ASHA, Division 2, Neurophysiology and Neurogenic Speech and Language Disorders, 12(3)*, 4-8.

Sohlberg, M.M., & Mateer, C.A. (1989). The remediation of language impairments associated with head injury. In M.M. Sohlberg, & C.A. Mateer, *Introduction to Cognitive Rehabilitation: Theory and Practice* (pp.212-231). New York: The Guilford Press.

Sohlberg, M.M., & Mateer, C.A. (2001a). Communication Issues. In Sohlberg, M.M., & Mateer, C.A., *Cognitive rehabilitation: An integrative neuropsychological approach* (pp. 306-334). New York: The Guilford Press.

Sohlberg, M.M., & Mateer, C.A. (2001b). Introduction to cognitive rehabilitation. In Sohlberg, M.M., & Mateer, C.A., *Cognitive rehabilitation: An integrative neuropsychological approach* (pp.3-24). New York: The Guilford Press.

Sohlberg, M.M., & Mateer, C.A. (2001c). Neurological disorders associated with cognitive impairments. In Sohlberg, M.M., & Mateer, C.A., *Cognitive rehabilitation: An integrative neuropsychological approach* (pp. 25-58). New York: The Guilford Press.

Sohlberg, M.M., Glang, A., & Todis, B. (1998). Improvement during baseline: three case studies encouraging collaborative research when evaluating caregiver training. *Brain Injury*, *12(4)*, 333-346.

Supported conversation for aphasic adults: **Enhancing communicative access** (1996). Instructional video. Aphasia Centre and Lifetime Productions: Aphasia Centre North York: Toronto.

Swart, L.J. (2001). An assessment of the costs and the benefits of employing people with disabilities. Research report submitted to the Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration.

Threats, T. (2002). Evidence-based practice research using a WHO framework. *Journal of Medical Speech-Language Pathology*, *10(3)*, 17-24.

Threats, T. (2003). The Conceptual Framework of ASHA's new scope of practice for Speech-Language Pathology. *Speech Pathology Online*, retrieved April 29, 2004 from http://speechpathology.com/ceus/class.asp.

Threats, T. (April 2004). The use of the ICF in intervention for persons with neurogenic communication disorders. *ASHA Division 2: Neurophysiology and Neurogenic Speech and Language disorders*, *14(1)*, 4-8.

Threats, T., Shadden, B., Vickers, C.P., & Lyon, J. (2003, November). *Assessment and intervention of older adults using the ICF framework (ICF).* Short course presented at the American Speech-Language-Hearing Association Annual Convention, Chicago, Illinois.

Threats, T., & Worrall, L. (2004)**.** Classifying communication disability using the ICF. *Advances in Speech-Language Pathology*, *6(1)*, 53-62.

Togher, L. (1997). Operationalizing Discourse Therapy. *Aphasiology*, *11(6)*, 621 - 625.

Togher, L. (2000). Giving information: The importance of context on communicative opportunity for people with traumatic brain injury, *Aphasiology*, *14*, 365-390.

Togher, L. (2001). Discourse sampling in the 21st century, *Journal of Communication Disorders*, *34(1/2)*, 131-150.

Togher, L., & Hand, L. (1999). The macrostructure of the interview: Are traumatic brain injury interactions structured differently to control interactions? *Aphasiology*, *13*,709-723.

Togher, L., Hand, L., & Code, C. (1996). A new perspective on the relationship between communication impairment and disempowerment following head injury in information exchanges. *Disability and Rehabilitation*, *18(11)*, 559-566.

Togher, L., Hand, L., & Code, C. (1997a). Analyzing discourse in the traumatic brain injury population: Telephone interactions with different communication partners. *Brain Injury*, *11(3)*, 169-189.

Togher, L., Hand, L., & Code, C. (1997b). Measuring service encounters with the traumatic brain injury population. *Aphasiology*, *11(4-5)*, 491-504.

Togher, L., Hand, L., & Code, C. (1999a). Exchanges of information in the talk of people with traumatic brain injury. In S. McDonald, L.Togher, & C.Code (Eds.), *Communication disorders following traumatic brain injury* (pp.113-145). United Kingdom: Psychology Press.

Togher, L., McDonald, S., & Code, C. (1999b). Communication problems following traumatic brain injury. In S. McDonald, L. Togher, & C.Code (Eds.), *Communication disorders following traumatic brain injury* (pp.1-18). United Kingdom: Psychology Press.

Togher, L., McDonald, S., & Code, C. (1999c). The nature of traumatic brain injury: Basic features and neuropsychological consequences. In S. McDonald, L.Togher, & C.Code (Eds.), *Communication disorders following traumatic brain injury* (pp.19-54). United Kingdom: Psychology Press.

Togher, L., McDonald, S., Code, C., & Grant, S. (2004). Training communication partners of people with traumatic brain injury: A randomized controlled trial. *Aphasiology*, *18(4)*, 313-335.

Tregaskis, C. (2000) Interviewing non-disabled people about their disability-related attitudes: seeking methodologies. *Disability & Society, 15(2)*, 343-353.

Ulrich D. (1998). Introduction. In D. Ulrich (Ed.), *Delivering results: A new mandate for human resource professionals* (pp.1-25). Harvard Business Review: USA.

Underhill, P. (1999). *Why we buy: The science of shopping*. Great Britain: Orion Business Books.

Van Riper, C. (1939). *Speech correction: Principles and methods*. Englewood Cliffs: New Jersey.

Ventola, E. (1979). The structure of casual conversation in English. *Journal of Pragmatics*, *3*, 267-298.

Wastell, C.A. (1995). Description of an experiential course in group processes incorporating community based practitioners. *Journal of Group Psychotherapy, Psychodrama and Sociometry*. Retrieved August 3, 2005 from http://www.highbeam.com/library/doc3asp

Watt, N., & Penn, C. (2000). Predictors and indicators of return to work following traumatic brain injury in South Africa: Findings from a preliminary experimental database. *South African Journal of Psychology*, *30(2)*, 27-37.

Watt, N., Penn, C., & Jones, D. (1996). Speech-language evaluation of closed head injured subjects in South Africa: Cultural applicability and ecological validity of a test battery. *The South African Journal of Communication Disorders*, *43*, 85-92.

Wehman, P., Kreutzer, J., Stonnington, H.H., Wood, W., Sherron, P., Diambra, J., Fry, R., & Groah, C. (1988). Supported employment for persons with traumatic brain injury: A preliminary report. *Journal of Head Trauma Rehabilitation*, *3(4)*, 82-94.

Wehman, P.H., Kreutzer, J.S., West, M.D., Sherron, P.D., Zasler, N.D.,Groah, C. H., Stonnington, H.H., Burns, C.T., & Sale, P.R. (1990). Return to work for persons with traumatic brain injury: A supported employment approach. *Arch Phys. Med Rehabil., 71*, 1047-1052.

Wehman, P.H., West, M.D., Kregel, J., Sherron, P., & Kreutzer, J.S. (1995). Return to work for persons with severe traumatic brain injury: A data-based approach to program development. *Journal Head Trauma Rehabilitation, 10(1)*, 27-39.

Wilkerson, B. (2001).The business case for accessibility: How accessibility-awareness strengthens your company's bottom line. Retrieved April 23, 2004 from http://www.equalopportunity.on.ca/engg/subject/index.

World Health Organization (1980). *International classification of impairments, disabilities, and handicaps*. Geneva, Switzerland: Author.

World Health Organization (1997). *ICIDH-2: International classification of impairments, activities and participation.* Geneva, Switzerland: Author.

World Health Organization (2001). *ICF: International classification of functioning, disability and health.* Geneva, Switzerland: Author.

Worrall, L.E., & Yiu, E. (2000). Effectiveness of functional communication therapy by volunteers for people with aphasia following stroke. *Aphasiology*, *14(9)*, 911-924.

Worrall, L.E., McCooey, R., Davidson, B., Larkins, B.M., & Hickson, L. (2002). The validity of functional assessments of communication and the Activity/Participation components of the ICIDH-2: do they reflect what really happens in real-life? *Journal of Communication Disorders*, *35(2)*: 107-137.

Ylvisaker, M. (2002). Intervention for individuals with challenging behaviour after TBI. *Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders, ASHA, Division 2*, *12(3)*, 19- 24.

Ylvisaker, M. (2003) Context-sensitive cognitive rehabilitation after brain injury: Theory and practice. *Brain Impairment***,** *4(1)*, 1-16.

Ylvisaker, M., & DeBonis, D. (2000). Executive function impairment in adolescence: TBI and ADHD. *Top Lang Disord.*, *20(2)*, 29-57.

Ylvisaker, M., & Feeney, T.J. (1996). Executive functions after traumatic brain injury: Supported cognition and self-advocacy. *Seminars in Speech and Language*, *17(3)*, 217-232.

Ylvisaker, M., & Feeney, T.J. (1998a). Preface. In Ylvisaker, M., & Feeney, T.J. *Collaborative brain injury intervention: Positive everyday routines* (pp.ix-xi). San Diego: Singular.

Ylvisaker, M., & Feeney, T.J. (1998b). Collaboration and apprenticeship: Creating a network of competence, confidence and support. In Ylvisaker, M., & Feeney, T.J. *Collaborative brain injury intervention: Positive everyday routines* (pp.235-256). San Diego: Singular.

Ylvisaker, M., & Feeney, T.J. (1998c). Epilogue. In Ylvisaker, M., & Feeney, T.J., *Collaborative brain injury intervention: Positive everyday routines* (pp.257-267). San Diego: Singular.

Ylvisaker, M., & Feeney, T. J. (1998d). Functional Collaborative Assessment. In Ylvisaker, M., & Feeney, T.J., *Collaborative brain injury intervention: Positive everyday routines* (pp.75-98). San Diego: Singular.

Ylvisaker, M., & Feeney, T.J. (1998e). Introduction to functional, everyday intervention: Theory, research, and practice. In Ylvisaker, M., & Feeney, T.J., *Collaborative brain injury intervention: Positive everyday routines* (pp.1-39). San Diego: Singular.

Ylvisaker, M., & Feeney, T.J. (1998f). Positive everyday executive system routines. In Ylvisaker, M., & Feeney, T.J., *Collaborative brain injury intervention: Positive everyday routines* (pp.99-129). San Diego: Singular.

Ylvisaker, M., & Feeney, T.J. (2000, November). *The project approach in brain injury rehabilitation: Theory and illustrations*. Miniseminar presented at the American Speech, Language and Hearing Association Annual Convention, Washington, D.C.

Ylvisaker, M., & Feeney, T.J. (2001). Supported behaviour and supported cognition: An integrated positive approach to serving students with disabilities. *Educational Psychology in Scotland, 6*, 17-30.

Ylvisaker, M., & Holland, A.L. (1985). Coaching self coaching and rehabilitation of head injury. In D.F. Johns (Ed.), *Clinical management of neurogenic communication disorders* (pp. 243-257). Boston: Little Brown & Co.

Ylvisaker, M., Feeney, J., & Feeney, T.J. (1999). An everyday approach to long-term rehabilitation after traumatic brain injury. In B. Cornett (Ed.), *Clinical practice management for Speech-Language Pathologists* (pp.117-162). Gaithersburg, MD: Aspen.

Ylvisaker, M., Feeney, T.J., & Urbanczyk, B. (1993). Developing a positive communication culture for rehabilitation: Communication training for staff and family members. In C.J. Durgin, Schmidt, N.D., & Fryer, L.J. (Eds.), *Staff development and clinical intervention in brain injury rehabilitation* (pp.57-81). Gaithersberg, MD: Aspen.

Ylvisaker, M., Jacobs, H., & Feeney, T.J. (2003). Positive supports for people who experience disability following brain injury: A review. *Journal of Head Trauma Rehabilitation*, *18(1)*, 7-32.

Ylvisaker, M., Szekeres, S., & Feeney, T.J. (2001a) Communication disorders associated with traumatic brain injury. In R. Chapey (Ed.), *Language intervention strategies in aphasia and related neurogenic communication disorders* (4th ed.) (pp.745-808). Baltimore, MD: Lippincott, Williams and Wilkins.

Ylvisaker, M., Todis, B., Glang, A., Urbanczyk, B., Franklin, C., DePompei, R., Feeney, T., Maxwell, N.M., Pearson, S., & Tyler, J.S. (2001b). Educating students with TBI: Themes and recommendations. *Journal of Head Trauma Rehabilitation, 16(1)*, 76-93.

Ylvisaker, M., Wedel-Sellars, C., & Edelman, L. (1998). Rehabilitation after traumatic brain injury in preschoolers. In M. Ylvisaker, *Traumatic Brain Injury Rehabilitation: Children and Adolescents* (2nd ed.) (pp. 303-329). Boston: Butterworth-Heinemann.

Zander, R.S., & Zander, B. (2000). *The art of possibility*. Boston: Harvard Business School Press.

APPENDIX 1A

Experts personally communicated with regarding the individual with TBI and aphasia

EXPERT	E-MAIL ADDRESS	DATE
Professor A. Holland	aholland@email.arizona.edu	2 June 2004
Dr A. Kagan	aurakagan@attglobal.net	4 June 2004
Dr C. Pound	carolepound@ukconnect.org	28 May 2004
Professor M.T. Sarno	martha.sarno@med.nyu.edu	24 May 2004
Professor M.M. Sohlberg	mckay@oregon.uoregon.edu	28 May 2004
Dr L. Togher	L.Togher@fhs.usyd.edu.au	7 June 2004
Professor M. Ylvisaker	ylvisakm@mail.strose.edu	3 June 2004

APPENDIX 1B

Corporate sector consultants personally communicated with in the development and refinement of the training session

CONSULTANT	E-MAIL ADDRESS	DATE
K. Coats	keith@tomorrowtoday.biz	29 April 2004
Dr G. Codrington	Graeme@tomorrowtoday.biz	21 & 25 April 2004
I. Mann	ianmann@gateways.co.za	23 April 2004; 8 August 2005

APPENDIX 1C

Experts personally communicated with in the development and refinement of the pre-and-post questionnaires 1 and 2

EXPERT	E-MAIL ADDRESS	DATE
S. Cottrell	Sophie.Cottrell@north-bristol.swest.nhs.uk	3 March, 2003
Dr A. Kagan	aurakagan@attglobal.net	2 January 2004
Professor M.M. Sohlberg	mckay@oregon.uoregon.edu	9 January; 12 January; 2 May 2004
Dr T. Threats	threatst@slu.edu	2 September; 10 November; 5 December 2003
Dr L. Togher	L.Togher@fhs.usyd.edu.au	7 June 2004

APPENDIX 1D

Experts personally consulted with in the development and refinement of the training session

EXPERT	E-MAIL ADDRESS	DATE
Professor A Holland	aholland@email.arizona.edu	17 April 2004
Dr A Kagan	aurakagan@attglobal.net	3 February; 15 April; 26 May; 10 November 2003
Professor M.M. Sohlberg	mckay@oregon.uoregon.edu	9 January 2004
Dr T. Threats	threatst@slu.edu	10 November 2003; 5 December 2003
Dr L. Togher	L.Togher@fhs.usyd.edu.au	15 April; 7 June 2004
Professor M. Ylvisaker	ylvisakm@mail.strose.edu	3 June 2004

APPENDIX 1E

Resources personally communicated with regarding availability of video material using individuals with a TBI specifically, for development of the training session

RESOURCE	E-MAIL ADDRESS	DATE
T. Brown	TBrown@health.state.ia.us	12 February 2004
J. Sullivan, New Hampshire Brain Injury Association	judy@bianh.org	2 December 2003
M. Winslow, South African Drive Alive Campaign	drivealive@tiscali.co.za	17 January 2004

APPENDIX 2A

Preamble for focus groups with a TBI

Thank you very much for coming along today. My name is Glenn Goldblum and I am a Speech Therapist from the University of Pretoria currently doing a research project looking at how people with cognitive communication difficulties (speaking and understanding problems) following a Traumatic Brain Injury manage with their shopping. I'm interested in how sales assistants view customers with disability, and how we might train them to serve these customers better. I'm especially interested in your ideas, as you have experience of dealing with sales assistants and their reactions to you.

Over the next hour or so I will ask you some questions to discuss within the group. I will be tape recording the discussion, and would like to ask you to please say the number placed on the table in front of you into the microphone before giving your input. I'd like to reassure you that you will remain anonymous and that no-one's name will be used when I write up the project. For the recording to be clear, please try and speak one at a time, listen to each other, and give everyone a chance to speak. I'm interested in hearing from each of you, so if you're not talking a lot, I may call on you. I'd like to make sure I hear from all of you today.

Please note that there is absolutely no right or wrong answer today. I'm interested in all your views, both positive and negative, and you won't be judged at all by the opinions you express. You may have differing points of view – but please feel free to share these views, even if they differ from what others have said. Should you at any stage feel uncomfortable, you are free to withdraw from the discussion without any penalty.

If you agree to take part and to being recorded, I'd appreciate it if you would sign this ***consent form***.

APPENDIX 2B

Centre for Augmentative and Alternative Communication
University of Pretoria
Pretoria
0002

Biographical details: Focus group of Individuals with a TBI

a) Participant number: ……..

b) Male or female? ……..

c) Date of birth: …….

d) Highest educational level: …….

e) Home language: …….

f) Language that you were educated in: …….

g) Preferred language when shopping: ……

h) Current occupation: ……

i) Date of accident: ……..

j) Were you unconscious? ……. …….

If so, for how long? …….

APPENDIX 3

Summary of barriers during shopping highlighted by participants of 2 focus groups for individuals with a TBI

- Interference from their memory problems resulting in either walking up and down aisles repeatedly to remember various items to purchase; or choosing to shop at the same shop for familiarity and comfort.
- Initial discomfort using a wheelchair in the shop – but with repeated use of the same shop, sales assistants get used to them, facilitating a more comfortable shopping experience.
- Intrusion of noise and busyness in the shop noted by some participants.
- Difficulty dealing with crowded shops and customers who push in in lines.
- Difficulty coping with money and change – particularly if pressurized when the shop is busy.
- Difficulties being understood when dysarthric, and regarded as stupid by the sales assistant who might be under pressure, or even uncomfortable dealing with such a customer. Some verbalized making lists in advance but that the sales assistants were often uninterested in asking them for the list.
- Many participants noted how when needing assistance they would ask the manager or supervisor.
- Difficulty seeing item labels, prices and also reaching certain items – for those with visual and physical difficulties.
- Some participants found shopping so penalizing that getting someone else to do the shopping was regarded as the best solution.
- Consensus regarding the need for education of sales assistants in order to make the shopping experience a more positive one for all.

APPENDIX 4A

Preamble for focus group of sales assistants from a retail supermarket store in the Gauteng region watching video clip titled "Gerry" (Supported conversation for aphasic adults: Enhancing communicative access (1996). Instructional video. Aphasia Centre and Lifetime Productions: Aphasia Centre North York: Toronto.)

Thank you very much for coming along today. My name is Glenn Goldblum and I am a Speech Therapist from the University of Pretoria currently doing a research project looking at how people with speaking and understanding problems following a Traumatic Brain Injury (head injury) manage with their shopping. A TBI may be caused by an accident and it can affect the person in different ways including the way they walk, talk, understand and think. I'm interested in how sales assistants like yourselves view customers with a disability, and I plan to develop a training program to assist sales assistants to interact more comfortably with these customers.

Over the next hour or so I will show you a short video clip and then would like to ask you some questions to discuss within the group. I will be tape recording the discussion, and would like to ask you to please say the number placed on the table in front of you into the microphone before giving your input. I'd like to reassure you that you will remain anonymous and no-one's name will be used when I write up the project. For the recording to be clear, please try and speak one at a time, listen to each other and give everyone a chance to speak. I'm interested in hearing from each of you, so if you're not talking a lot, I may call on you. I'd like to make sure I hear from all of you today.

Once the discussion is over, I would appreciate your completing the questionnaire on the table in front of you. Please remember that there are no right or wrong answers today. I'm interested in all your views, both positive and negative, and you won't be judged at all by the opinions you express. You may have differing points of view – but please feel free to share these views, even if they differ from what others have said. I'd also like to assure you that this study is a University research project, and no comments made by you today will go back directly to the company.

Should you at any stage feel uncomfortable, you are free to withdraw from the discussion without any penalty.

If you agree to take part and to being recorded, I'd appreciate it if you would sign this consent form.

Let's begin by showing you a **video clip titled Gerry…**

APPENDIX 4B

Centre for Augmentative and Alternative Communication
University of Pretoria
Pretoria
0002

Biographical details: Sales Assistants: retail supermarket store: Gauteng Region

a) Participant number: …….

b) Male or female? ……

c) Date of birth: ……

d) Home language: ……...

e) Highest educational level: ……..

f) Language that you were educated in: ……..

g) How long have you been working for the Company? ……...

h) What does your job involve? …….

……

……

……

i) Any previous work experience? What did it involve?

……

……

j) Do you know anyone who has a disability? ……..

If so, who is this person, and what is their problem?

……

……

APPENDIX 5A

Centre for Augmentative and Alternative Communication
University of Pretoria
Pretoria
0002

Initial letter sent to experts re participating in completion of a questionnaire

This letter was e-mailed in May 2003 to various experts working with individuals with a TBI both locally and internationally.

PARTICIPATION IN RESEARCH PROJECT:

The perceptions of sales personnel dealing with customers with Traumatic Brain Injury: A training program.

I am a Speech Therapist currently doing my PhD (through the Centre for Augmentative and Alternative Communication, University of Pretoria) looking at the integration of individuals with a cognitive communication difficulty following a Traumatic Brain Injury as a consumer in the retail world. Specifically, I'm interested in how the perceptions of sales assistants change after receiving training in dealing with such customers.

I would appreciate it you would be prepared to participate in this research project. Should you agree, I will forward an electronic version of a Questionnaire to you at the beginning of the week of the 2-6 June, which should take you less than 20 minutes to complete. Kindly e-mail it back to me within that week so that I can complete the analysis on the information.

Thanking you in anticipation
Sincerely

Glenn Goldblum (MA (Speech and Hearing Sciences) (University of California, Santa Barbara))

APPENDIX 5B

Centre for Augmentative and Alternative Communication
University of Pretoria
Pretoria
0002

Letter accompanying questionnaire to experts

Dear ……

I appreciate your willingness to complete the following questionnaire which should take you less than 20 minutes to complete. Your information will be strictly confidential.

Kindly e-mail the questionnaire back to me by the 20th June so that I can complete the analysis of information

Regards

Glenn Goldblum (MA (Speech and Hearing Sciences) (University of California, Santa Barbara))

Questionnaire:

Based on your extensive experience working in the field with individuals with acquired brain injury, and Traumatic Brain Injury specifically, I'd be interested in your comments concerning an individual with a TBI as a customer in the retail world. The customer might present with a range of possible problems including physical as well as cognitive communication deficits – such as dysarthric speech, as well as pragmatic deficits.

Please answer the following questions:

1) What sorts of difficulties might such a customer experience when shopping?
2) In your experience, what do you think the typical reaction would be from sales assistants dealing with customers with a TBI?
3) List some training procedures that you consider may be useful in dealing with these kinds of problems.
4) What kinds of "adjustments" could be made to accommodate customers with cognitive-communication impairments?
5) Do you think that a training program aiming to increase the sales assistant's understanding and awareness when interacting with such customers would be of any value? If so, in what way?
6) Any other comments regarding shopping experiences for the individual with a TBI?

APPENDIX 6

Trial video scenarios planned to be videotaped in Rosebank and Rivonia supermarkets, July, 2003

SCENARIO	DESCRIPTION	GOAL
The photo counter	W to request photos to be developed – with no record of the photos being handed in.	Lack of insight by W into time taken for him to deal with his request; distractibility; memory loss for targeted task; impulsive discussion around request.
The green bag	M to go to Information counter to request a green shopping bag to tell sales assistant his name was put on a waiting list and still no bag.	Strategies used by both M and the sales assistant to deal with a situation that is frustrating as the green bag is not available.
The shopping list	L (very dysarthric speech) to go to various areas of the store to ask for various items (eg, hundreds and thousands, or sorbet).	Dealing with a situation where the associated motor disorder (dysarthria) significantly impedes the comprehension of the request by the sales assistant/s. Frustration, and by whom, and what strategies are used spontaneously by the sales assistants to clarify her requests?
The butcher	M and D to go together to discuss having a braai[1] for a birthday later in the month, with suggestions for menu options for the braai[1].	Possible impulsive buying; distractibility; over-familiarity with the sales assistant; memory-loss for targeted task.
Item out of stock	D asks for Canderel[2] (out of stock in the store) and negotiate with sales assistant about the item never being available.	Dealing with a situation where the associated motor disorder (dysarthria) significantly impedes comprehending the request by the sales assistant/s Frustration, and by whom, and what strategies are used spontaneously by the sales assistants to clarify his requests?

Key: [1] South African term for barbeque
[2] Artificial sweetener

APPENDIX 7

Video scenarios planned for videotaping in three Gauteng supermarkets during October 2003

SCENARIO	DESCRIPTION	GOAL
The photo counter – (Redo scenario videoed in July 2003)	a) W to request photos to be developed – with no record of the photos being handed in. b) After a time, have a customer stand in line impatiently behind him and possibly intervene.	Lack of insight by W into time taken for him to deal with his request; distractibility; memory loss for targeted task; impulsive discussion around request. Observe how W deals with the intervening customer in the line.
The return counter scenario	a) Attempt to return a more expensive item (eg toaster; kettle; camera) - complain it doesn't work – but has no cash slip. b) During this interaction, ask for an item that is hard for the sales assistant/ manager to understand.	Dealing with a situation where the associated motor disorder (dysarthria) significantly impedes comprehending the request; frustration and by whom; customer's ability to express herself and clarify efficiently. Strategies used by sales assistant/ manager to comprehend the request by the customer.
The shopping list	L (very dysarthric speech) to go to various areas of the store to ask for various items (eg, hundreds and thousands[1], or sorbet).	Dealing with a situation where the associated motor disorder (dysarthria) significantly impedes comprehending the request by the sales assistant/s. Frustration, and by whom, and what strategies are used spontaneously by the sales assistants to clarify her requests?
Tea-time purchase	W and D given R50 to buy items for tea - then proceed to checkout counter and deal with the cashier regarding their purchases in relation to the money they have.	Challenge of managing a situation dealing with money management, where they can't produce the correct amount of money, and then coping with the situation of what they have put in their trolley to purchase.
CD Counter: Return scenario	a) M to return a used CD and deal with sales assistants' questions about the item. b) Customer joins the line and gets impatient.	Dealing with a situation that is frustrating. Strategies used by both M and the sales assistant to deal with mounting pressure in the interaction. Observe how M deals with the intervening customer in the line.

Key: [1] cake decoration

APPENDIX 8

Centre for Augmentative and Alternative Communication
University of Pretoria
Pretoria
0002

Preamble by store managers to sales assistants being videotaped in the stores

Later today a Speech and Hearing Therapist, ***Glenn Goldblum*** who is currently doing a research project from the University of Pretoria, will be spending some time in our store and taking videos of various sales assistants talking to, and dealing with different customers.

She needs to make these videos in order to develop a training session to help our sales assistants work better with all types of customers. **Please try and ignore the video**. Your most natural reaction will be the most valuable to the project.

She greatly appreciates your assistance and all information and material obtained will remain confidential and for her use alone in developing her training session. Mrs. Goldblum would also like to assure you that this study is a University research project, and no comments made by you today will go back directly to the company.

APPENDIX 9

Transcription of video scenario 1: *The photo counter scenario*
(Used in conjunction with Pre-and-post questionnaire 1)

Real time taken: 21 minutes and 54 seconds

Edited time: 15 Minutes 06 seconds (with stills inserted)

Context:

Customer W approaches the Photo counter inside the store (with his walker), where 2 assistants are serving (an assistant from Kodak is also there unpacking stock).

W: Can I have an 800 ASA spool?
Assistant 1 (A1): Foto First [1] may have it, and Clicks and CNA [2] – which one do you want Sir…How are you?
W: I'm good thank you, how are you? *(Assistant 2 next to this one – big smile)*. You are very helpful and very kind.
A 1: Beg your pardon? *(They both strain to understand him).*
W: You're very nice.
A 1: *(Smiles)* thanks – but we don't have 800 – we've got 200 and 400.
W: Can't someone get an 800 for me?
A 1 and A2 simultaneously: Ok - yes we can go – we can go *(smile).*
W: Ok thank you.
A 1: *(Big smile)* We can go - thank you.
*(**W** has hands on counter, and doesn't offer to pay)*
A1: If you can give us money we can go for you *(big smile).*
W: Sorry?
A1: Yes we can go and look for you at …we can help you – give us money.
W: Ok thanks *(both hands still on counter - still no money forthcoming).*
A2 *(Walks around the counter to W's side and asks):* So you just want one 800?
W: Ja. [3]
A2: Can you give me money and I'll go get it for you?
W: Ach [4] – I thought you were giving me free films!
(Both A1 and A2 strain to hear, and then both laugh)
A2: You have to buy it. *(**A1** then serves another customer).*
W to A2: Ach no then I don't want it ..Honestly I don't' ..I can't believe it *(A2 bends her head down towards **W** to understand what he is saying)*. I thought you'd just give it to me.
A2: No - we don't have it here. Maybe we'd have given it to you if we'd have it here – but we have to go to another store to buy it for you.
W: Can't ….*mumbles*
A2: *(Strains to hear)* Hey?
W: Is there something else you can give me?
A2: Who can give you the 800? *(**A2** turns to **A1** to ask about the 800ASA).*
W: Can I please have some….sorry can I please have some service *(raising his voice and moves his right hand up and down in the air):* I need that 800 now please. Now, I want it now!
A1 goes up to **W**: Ok she's coming now. She's going to the Manager to ask the manager if she can buy it for you…OK? She's not allowed to take the money from our tills to go and buy it for you …we have to ask permission. We're not allowed to do that.
*(Another customer (old lady) joins the line behind **W**)*
W: I don't want an assistant. This is not good.
A1: It is sir – everything we have to do we have to get the permission. We cannot do anything without the permission. *(Lengthy look at him)* She's coming – please Sir *(getting quite desperate).*
W: (Waits patiently for the Manager, looks around)
(**A2** approaches W with the Manager (**M**) who stands on his right (with **A2** on his left)
M: Good morning sir. How are you?
W: Hi.
M: How are you?
W: Have you got an 800 for me?

M: 800?
W: Ja. [3]
M: We don't have them sir.
W: Ah but the other the other shop the other day they had.
M: The other stores might have. You know we've got uh these stores outside they might have but we don't have it.
W: You should have.
M: No we don't stock that one
W: Why can't you get it for me?
M: Ja [3] we can get it for you only if you going to pay because we need to go out and buy for it and buy the film for you and get it back to you.
W: Thank you. You are very helpful. You are very helpful.
M: Ok – So can you please give me the money so I can go and buy it for you?
M *(Turns to **A2** on Warren's left):* How much is the normal one?
A2: R34.99
M: R34.99
A2: Not sure how much the spool will cost.
M: So you need to find out how much the spool will cost. So can you do that for me?
A2: How much did you want – 200 or 400?
W: 800.
A2: 24 or 36?
W: Um 48.
A2: *(Turns to the Manager and asks):* Should I go and find out how much it costs?
M: Yea – whatever.
M turns to **W**: I just sent that lady to find out the price for you.
W: Thank you. You're very helpful.
M: See what we can do for you.
W: You're very helpful.
W: I'm very cross…
M: *(Strains to hear)* Sorry?
W: I'm very cross.
M: You're very cross?
W: You don't have it in your store?
M: No sir we don't have it. We don't have it. You see a lot of customers doesn't buy it so we only stock what we can sell.
*(**W** rubs his head in apparent frustration).*
M: So it doesn't help us like to keep that line in. I mean there's only one customer in a while who comes to buy that stock. For us it's a loss cause we end up selling nothing and we end up sitting with stock here…
W: *(Interrupts him):* I hear that so many times…
M: Ja [3] I know but unfortunately it's the truth about it.
W: It's not the truth – you just - you just don't want to sell to me.
M: No it's not that Sir. I mean you can just have things like we've got stock here and we sit here for 6-12 months and it's not making money.
W: No but I still think that ….it's not good.
M: Ah well, I can't take that from you. Well that's how you think but the truth about it is we need to make money and we cannot keep something here that doesn't work for us.
W: *(Looks at an advert on the counter about Free Kodak Film…with every film processed)* I think Free Kodak films – can I just have for free Kodak films?
M: Free Kodak films?
W: Ja [3] with my purchase?
M: Ja [3] with every film processed…
W *(Intervenes):* No I'll just have free Kodak photo album.
M: Without processing?
W: No sir.
W: Ach [4] no.
M: *(Smiles)* Nee nee nee nee [5] *(smiles)*. We can't do that, I'm sorry sir! Can't do that! You only get the free film if you process… *(Points to the cardboard advert on the counter)*
W *(Intervenes):* I always just read the top – from the top - not the bottom…
M: No sir.
W: It says Free Kodak photo album.
M: Only if you bring in a film to be processed – that's the only time you can collect a free film. Other than that…
W: No – I just - you just read the top line.
M: Just read the top line *(laughs out loud)*

W: Ja, [3] I just read ..
M: Well do yourself a favour and read everything….
W: *(Intervenes getting irritated):* No because I think it's an outrage.
M: Well I'm sorry sir - well that we can; do you know. That's the unfortunate part of it you know?
W: Wh where's the 800?
M: I'm waiting for it. I'm waiting for the lady who went to find out the price because we don't sell it so we have no clue how much it's going to cost us - so she'll be back in no time.
W: Oh no – have you got a 750?
M: 750? Uh Winnie have you got a 750? *(Turns to the sales **A1** behind the counter)*
A1: No we don't have a 750.
W: Oh - do you have a 700?
A1: No I'm sorry we don't have a 700; 200; 400 that's all.
W: 800 – nothing…
A1: No.
W: Well uh this is totally ridiculous.
M: Well that's the unfortunate part of it sir..we can stock that much and we can't stock more that that you know.
W: *(Very frustrated – puts his head on the counter*)…I don't know what I'm gonna do.
M: No we'll try and find out for you from Foto First how much is the price and we'll go and buy it for you…Just sorry because you have to wait a little bit long.
W: You're very helpful.
M: Well I'm trying cause seeing as we don't have the products here. I mean…
W intervenes: Phil *(raises his voice)* Phil!
M: Yeah that's me.
W: Fill up *(laughs)* huh huh – fill up the car *(shouts)* fill up the car.
(Places his right hand on the shoulder of the Manager) Here's Mr the car
M: Ja, don't worry sir
W: Fill up the car – looks at Manager with his right hand on his shoulder and smiles.
W: *(Starting to get frustrated)*: Is this going to take long?
M: She'll be back in no time sir
(Manager goes off and returns a few moments later……)
M: I'm sorry sir but nobody in this centre has got this film. Nobody.
W: This is an outrage.
M: Uh, nobody's got it.
W: Phone your head office…head office.
M: We can check with Kodak but that might take us a while you know if they do have stock….
W: Oh well *(Mutters)* …find…
M: Sorry?
W: Find out for me please.
M: Ja [3] we'll do that – if they do have the stock then we'll ask them to give us the film and we'll come and deliver it to you. A promise that we need to keep also.
W: I'm very satisfied with that.
M: So is there anything else I can do for you sir?
W: Um….You just take take your shop.
M: Sorry about that. We'll try and come back to you but we'll really need your details so that if we find out …..why can't you use the 400 or the 200?
W: My camera only takes 800.
M: 800? But seeing as you don't get it, maybe it's about time you sold that camera and buy something that you can accommodate all these films.
W: Have you got a good film here.
M: Ja, [3] we got lots of good films here – I mean we've got good cameras – I mean you can try those ones – for you to go without a film – I mean It's just not right.
W: Have you got a camera for me to take?
M: Ja [3] – well that one, it's R79.00
W: I can just take it try it out *(unintelligible).*
M: Sorry?
W: I can just take it and try it out.
M: You will need to pay for it.
W: No, uh…. I' don't have money now.
M: Well I can't just take it out…it's just a suggestion you know?. Next time when you've got money you can buy yourself a camera.
W: No ..
M: I mean I can't give you the camera….

W: You can.
M: Noooo.
W: It'll be between friends….No.
W: *(Places his left hand on the Manager's shoulder):* Between friends *(M laughs)* Between friends.
M: *(Laughs aloud):* No, friendship doesn't mix with business!
W *(Arm still around M)*: Come on.
M: No no I'm sorry sir….Nothing can be for nothing. Or else I'll lose my job.
W: No between friends.
M *(Laughs)*: NO – I can't do that!

(Irate customer (N) approaches from behind in the line …..)

N: This man needs to continue with his work and you've been occupying a lot of his time. I think they haven't got what you need. You need to leave him so that he can continue and maybe go to another store.
W *(Looks a little taken aback):* But I always shop here!
N: Ja, [3] but if they don't have what you need today, then you need to look further.
W: This is the best shop in town and and *(he turns to the **M** on his left and puts his arm around him)* …and and are you listening to me Phil, this is the best shop in town
M: Ja. [3]
W: This shop has everything…
N: But today they don't have what you need - so you can't occupy his time further.
W: Ja [3] but you see, I need that film and he's going to give it to me. Phil's gonna get it for me.
N: But if Phil doesn't' have it, then he can't get it for you!
M *(Interjects):* No we don't have it.
W: He can send someone.
M: I can't.
N: It's not possible they don't have it in the store.
W: He can send someone.
M: I even tried to in the centre and nobody's got it.
N: Why don't you come another day and then perhaps Phil will have it?
W: When when is this going to be? It's not possible I'm going away tomorrow.
N: You're going away tomorrow?
W: Ja [3] *(hands showing exasperation)*
M: Well that's just tough.
W: It's not tough!
N: Perhaps …where you going to?
M: Ja it is you know. We got this service that we can give to you. Now if you're going away tomorrow, now there's nothing I can do. I can guarantee you 24 hours to find out if they have it or they don't have it.
W: You're making me cross *(taps his left hand on the counter)*
N: Ja [3] but you can't occupy his time further
W: I'm getting cross *(rubs his face).*
M: There's nothing else we can do….
N: So you're going to have to leave here now so that he can continue with his work
W: *(Getting more angry – redder in the face, and starts to stamp his hands on the counter).* No no listen here …listen Toots**.** Listen - I've got a lot of stuff to do – a lot of filming to do and it's going to require an 800.
N: Ja [3] – but he, Philip has also got a lot to do, and he can't get along with his work because he doesn't have what you need, and you're continuing to pester him…
W: No no! *(Getting really angry at this customer – bears his teeth at her).*
N: You're disturbing him – they've got other customers to attend to…
M: I mean you see sir. I've got other customers to attend to, and I tried to explain to you, and you don't like to understand what I'm trying to say. You don't like to understand what I'm trying to say.
W *(Intercepts him):*This just doesn't work. Ach this just doesn't work….I'm getting cross!
M: Yeah – it's just the unfortunate part of it because we don't keep that line. It's a line that we don't keep in the store. And what I said to you earlier is that I'll find out from Kodak if they have it and I'll take your details and give you a call.
W: No – OK *(throws out his left hand towards the **M**)* – so then just take my bloody details!
N: Ok so take his details and then you can come back another day.
(Manager writes his details down).
M: Your address?
W: Just remember it's Frik van der Merwe
M: Cell phone number is 716 7261? Is that alright?
W: No…..041

M: Sorry?
W: The code is 041
M: Ok so we'll call and find out if they have the product. If not – still I'll give you a call and let you know.
W: Thanks.

END OF SCENARIO 1

Definition of South Africanisms used in the scenario:[1], [2], [3], [4], [5]

[1] **Foto First:** A photographic chain store in S.A
[2] **CNA and Clicks**: South African retail stores
[3] **Ja:** Yes (an affirmation).
[4] **Ach:** Oh
[5] **Nee nee:** No, no

APPENDIX 10

Transcription of video scenario 2: *The return counter scenario*
(Used in conjunction with Pre-and-post questionnaire 2)

Real time taken: 9 minutes and 12 seconds

Edited time: 8 Minutes 18 seconds (with stills inserted)

Context:

Customer L approaches the Returns counter inside the store with her parcel in a green store bag. She asks the assistant (**A**):

L: I want to return this (lifts her green shopping bag onto the counter). I got it…
A *(Removes the 2 items from the bag):* What's wrong with this?
L: I got it as a present. I already got it. Really don't want it. I already got one. I don't want it.
A: What's wrong with it?
L: I got it as a present.
A: You got it as a present? That person who did give it to you – she didn't give you a slip?
L: No – no. It was a present. It was a present.
A *(Examines the 2 items to see if they are intact).*
L: I got no slip.
A: No slip? Ok let me call someone to help you cause I cannot help you when you don't have a slip.
L: Thank you.
A *(Rings the bell for assistance):* It was too much.
L: Thank you.
A: Yes - When it's too much we cannot give you so I'm calling someone to help you.
L: Thank you. I know they bought it here.
A *(Straining to understand):* She bought it here?
L: *(Nods):* She bought it here.
A: She bought it here? When was it?
L: About last week.
A: Do you know the date - cause you don't have a slip with you. You don't know the date?
L: No.
A *(Rings the bell and looks around for the Manager).* Another sales assistant (**A2**) approaches her, and she chats to her explaining the situation in her Black language..
L *(Interjects to this person, **A2**):* I already got it – I don't want this.
A2 *(Strains to understand **L**).*
*(**A2** examines the items with **A1**).*
L: I haven't got a slip – it was a present.
*(A2 and A discuss calling the Manager (**M**). It takes a while for the Manager to arrive).*
A: So you don't want these things? Because you know this thing of not having a slip is a problem.
L: It was a present. I can't do anything about it.
A: Ja [1] – Ja [1] – that's why I'm saying they are going to call the Manager and the Manager will come and assist you. I cannot do anything.
L: Ja.[1] Thank you.
A: Because I think also - it's more than R100.
L: Ja.[1]
A: You should have told that person who bought those things for you to give you to give you the slip because you did know that you were going to bring them back.
*(very kind towards **L**)*
L: That's why I said: "Where did you buy it?" She said "Here"
Another Assistant (**A3**) approaches, and **L** explains to her: I already got one. That's why when she gave it to me, I said where did you buy it and she said "Here."
A3: *(Seems to strain to understand her)* Ok fine - the Manager's coming.
L: Thanks.Thanks so much.
(L looks around waiting for the Manager)

Another assistant (**A 4**) approaches and says: How are you?
L: I'm fine thanks and you?
A4: Fine thanks.
L: Good. *(Points to the items on the counter)* I got this as a present and I already got it. So she bought it here and I don't have a slip. Please can I have the money back. I don't need something else.
A: *(clarifies for this A4 who clearly cannot follow L):* You hear what she said? She bought this here. I think a friend bought this for her. I think last week or when.
A4: Uh huh
A: Now she doesn't have this slip. And you know we've got a problem with these things – more than R100 if you don't have a slip it's a problem.
A4: Ja [1]
A: So – we need to ask the manager what to say.
A4: I think we must speak to the store manager and see what he says. *(Turns to **L**)* It's not the product – more than R100 you must have a slip.
A: And you haven't got a slip.
A4: And you don't have a slip so..
L: I haven't; got a slip cause it was a present.
A4: Ok so you know what you must do – he looks to the other side of the store *(Manager's office):* Speak to the store manager. Let me call a store manager *(he goes off looking for a store manager).*
L (looking over the counter to the A): She was in here last week. I said "where did you buy this" and I was too shy to ask her for the slip. I didn't want to know how much she paid.
A: You know the lady who bought it for you?
L: Ja.
A: You know her telephone number and everything?
L: Ja.
A: Let's speak to the Manager - but I don't think they're going to give it to you. They're very strict when you don't have a slip.
L: But it was bought here.
A: Yes we sell it here. Yes we do sell it here. But then the other thing is we don't know how much it is. *(Lifts the items).* Let me go and check how much it is. *(Goes off to scan the items).*
L *(Looks around and looks at her watch).*
A3 approaches her: He's coming now.
L *(turns to **A3**):* I want to ask you something.
A3 *(Strains to understand L – and cups her left ear while talking to her)*
L: I want Hundreds and Thousands. [2]
A3: I know.
L: I also want Hundreds and Thousands. [2]
A3 *(Cups here head - puzzled by the customer's request):* Ok.
L: Can you get me Hundreds and Thousands? Hundred and Thousands [2] in the bakery section?
A3: Ok *(Very puzzled by this request – cannot understand it).*
L: And bring it to me?
A3: Yes ok
L: Can you bring it to me?
(A3 goes off) .
L (Turns back to **A**): I also asked her for hundreds and thousands. [2]
A *(straining to hear her):* How much? This one *(pointing to the one returned item)* is R 169.99 and this one's R79.99 – so it's more than R200 and when you don't have the slip we cannot give it to you *(joined by **A4** who walks back up to them).*
Manager (M) walks up: Hi there how are you doing? *(**A 4** still lingers there with the M throughout this interaction)*
L: I'm fine and you?
M: Alright. What can we do for you?
L: I got these as a present and I want my money back.
M: Ok – no that's not a problem. Does the items scan here? *(He turns to **A** behind the counter)*
A: Yes the item it does scan but the problem is they are very expensive.
M: They do scan?
A: This one's R169.99 and this one's R79.99 so we cannot just return the money.
M *(shakes his head):* It doesn't make a difference You don't have a slip but it was a present?
L: Ja – bought here last week – it was a present.
M: Last week.
L: Ja last week
M: That's not a problem *(turning towards A):* We just refund her. You know the policy.
A: So we have to do a refund?
M: Ja. It's not a problem. At the end of the day you just put it back on the shelves. You got the stock on the shelves

so we just put it back on the shelves.
*(**A** gets out a Refund book for **L** to fill in)*
L: Thanks so much.
M: Ja,[1] that's not a problem alright?
L: Thanks so much.
M: Ok. *(He takes her details in the refund book).*
M *(When he's finished getting her personal details):* Ok Mam – they'll give you a refund.
L: Thanks so much.
M: Alright – enjoy the rest of your day.
*(**M** leaves and A scans items to give **L** her money).*
A: So our store manager said I must give it to you.
L: He knows I bought it here.
A: Ja, he says that if the thing is scanning then there's no problem with it.
L: Thank you.
*(**A** completes refund forms and gives **L** her money)*
A: There you go.
L: Thank you so much.
A: Have a nice day.
L: Can I have the slip?
A: You cannot have the slip because you didn't have a slip. The slip is mine.
L: Thanks, Bye.

END OF SCENARIO 2

Definition of South Africanisms used in the scenario:[1], [2]

[1] **Ja:** Yes (an affirmation).
[2] **Hundreds and Thousands:** Decoration for cakes

APPENDIX 11

Suggestions for videographer when editing in-store videoing during October 2003

- Try to cut out as much transient noise as possible.
- Close-ups of eye and facial expressions.
- Good still photo of each encounter.
- Still of customer; main sales assistant and manager in each scenario.
- Fade out at end of each scenario, with a photo of these 3 individuals together.
- Scenarios to try to be no longer than 10 minutes each

  Note: Scenario 1 (Photo counter) may be difficult to cut down as much – you may need extra time to create the reality of the interaction.

Appendix 12

Pre-post questionnaire 1: **Video 1: The photo counter scenario**
Instructions, training questions, and pre-post questionnaire 1

Centre for Augmentative and Alternative Communication
Sentrum vir Aanvullende en Alternatiewe Kommunikasie
&
INTERFACE

University of Pretoria

2004 *T-Systems Age of Innovation & Sustainability Awards: Excellence in Innovation and Sustainability: Social*
2003 *National Science & Technology Awards: Corporate Organization over the last ten years.*
2002: *Shirley McNaughton Award for Exemplary Communication received from the International Society for Augmentative and Alternative Communication*
1998: *Rolex Award for Enterprise: Associate Laureate*
1995: *Education Africa Pre*

website: http://www.up.ac.za/academic/caac

Fax/Faks: (012) 420 – 4389
Tel: (012) 420 – 2001
E-mail: erna.alant@up.ac.za
Faculty of Education / Fakulteit Opvoedkunde
Centre for Augmentative and Alternative Communication
Sentrum vir Aanvullende en Alternatiewe Kommunikasie
University of Pretoria, Lynnwood Road

INSTRUCTIONS:

Now that you've seen this video please complete the following Questionnaire. Please look at each statement and put an X to show if you agree or disagree with each of the following statements about this video interaction you've just seen.

Please remember that there are no right or wrong answers.

Here are a few sample questions first to make sure you understand what to do:

	AGREE	UNSURE	DISAGREE
A) **The manager** followed company policy when serving this customer			
B) **The customer** struggled to make his wishes understood			

QUESTIONNAIRE 1

1. Participant Number: _____ V1 [ ][ ] 1-2
2. Group Number: (A or B) _____ V2 [ ] 3
3. Testing Session: (1=pre, 2=post) _____ V3 [ ] 4
4. Video 1 or Video 2 _____ V4 [ ] 5

	Agree	Unsure	Disagree	
If I were the manager in the video:				
1) I would feel unsure about serving this customer				A1 [ ] 6
2) I would want to avoid serving this customer as I would feel unconfident as to how best to deal with him.				A2 [ ] 7
3) I would respond in the same way to this customer as he did in the video				A3 [ ] 8
4) I would spend the same amount of time with this customer as he did in the video				A4 [ ] 9
5) I would serve this customer quicker so that other customers in line could be served				A5 [ ] 10
6) I would feel frustrated after serving this customer that I had taken so long to help him				A6 [ ] 11
7) I would feel frustrated that I didn't have better training to deal with this kind of customer				A7 [ ] 12
8) I would end this transaction quickly as the product was not available in the store				A8 [ ] 13
I think that ……..				
9) The manager served this customer efficiently				A9 [ ] 14
10) The manager will serve this customer in the same way at the end of the month when the store is very busy				A10 [ ] 15
11) The manager should have been more direct with this customer				A11 [ ] 16

	Agree	Unsure	Disagree
12) The manager should have been more patient and explained more of the difficulty he had in getting the product for this customer			
13) The manager coped well with this sales transaction			
14) To assist this customer when serving him, it would be helpful to explain what you can and cannot do for him			
15) I should treat this customer in the same way as I treat all my other customers			
16) The other customer in line was helpful to the manager who then changed his response to this particular customer			
17) The customer was not aware of how much time he was taking with the manager			
18) The customer went home feeling discouraged after his shopping experience			
19) It would be helpful for the customer to have someone with him to do his shopping			
20) I would feel comfortable sitting next to this customer on a bus or taxi			

A12 ☐ 17

A13 ☐ 18

A14 ☐ 19

A15 ☐ 20

A16 ☐ 21

A17 ☐ 22

A18 ☐ 23

A19 ☐ 24

A20 ☐ 25

21. If this was you, ***in your own words*** describe what you would have done differently if you were serving this same customer?

A21 ☐☐ 26-27

A22 ☐☐ 28-29

Appendix 13

Pre-post questionnaire 2: **Video 2: The returns counter scenario**

QUESTIONNAIRE 2

1. Participant Number: _____

2. Group Number: (1 or 0) _____

3. Testing Session: (1=pre, 2=post) _____

4. Video 1 or Video 2 _____

	Agree	Unsure	Disagree
If I were the main sales assistant in the video, I would:			
1) Feel comfortable when approached by this customer			
2) Know what this customer would need to help make this an efficient transaction			
3) Assist this customer alone without asking other sales assistants to help me			
4) Spend the same amount of time serving this customer as the sales assistant did in the video			
5) Not feel comfortable asking the customer to repeat herself, even if I did not understand her			
6) Know how to help this customer if she was struggling to make herself understood			
7) Feel frustrated that I did not have better training on how to serve this customer			
8) Think the customer finds it hard to understand what the sales assistant is saying			
9) Think the sales assistant served this customer efficiently			

V1 ☐☐ 1-2
V2 ☐ 3
V3 ☐ 4
V4 ☐ 5

C1 ☐ 6
C2 ☐ 7
C3 ☐ 8
C4 ☐ 9
C5 ☐ 10
C6 ☐ 11
C7 ☐ 12
C8 ☐ 13
C9 ☐ 14

	Agree	Unsure	Disagree
10) Think it would upset the customer if I asked her to write down what she was saying to me, instead of asking her to say it again			
11) Think the sales assistant coped well with the sales transaction in the video			
12) Think it would be helpful for the customer to have someone with her to do her shopping			
13) Think that this customer needs more patience when being served than other customers			
14) Feel comfortable sitting next to this customer on a bus or taxi			

C10 ☐ 15

C11 ☐ 16

C12 ☐ 17

C13 ☐ 18

C14 ☐ 19

15. If this was you, in your own words describe what you would have done differently if you were serving the same customer?

C15 ☐☐ 20-21

C16 ☐☐ 22-23

Appendix 14

Instructions for participants: experimental and control groups before the pre-questionnaire administration

---

Thank you very much for coming along today. My name is Glenn Goldblum and I am a Speech Therapist from the University of Pretoria, currently doing a research project looking at how different kinds of customers manage their shopping in your stores and how sales assistants like yourselves view customers with a disability**.**

Over the next hour – hour-and-a-half, I will show you 2 short video scenarios. After you've watched each video scenario, I'd appreciate your completing the questionnaire on the table in front of you by filling in an X in each of the squares that you feel is the appropriate one. ***Please remember that there are no right or wrong answers today***. I'm interested in all your views, both positive and negative, and you won't be judged at all by the opinions you express. You may have differing points of view – but please feel free to share these views, even if they differ from what others have said.

I'd also like to assure you that this study is a University research project, and no comments made by you today will go back directly to your company

Should you at any stage feel uncomfortable, you are free to withdraw from the discussion without any penalty.

If you agree to take part I'd appreciate it if you would sign this consent form (*Appendix 15*).

A few extra reminders please:
Please will you:

- Ensure that you fill in your Participant number wherever required.
- Ensure that you put an X in each of the blocks on all questionnaires.
- Refrain from chatting with your colleagues while watching the videos, and also while you are completing the questionnaires.
- Please switch off all cell phones!

Appendix 15

Letter of Consent to Participate

Centre for Augmentative and Alternative Communication
University of Pretoria
Pretoria
0002

Consent form to participate in research project:

I have understood the information about the PhD Research Project being carried out by ***Glenn Goldblum*** under the supervision of ***Professor Erna Alant***, Director of the Centre for Augmentative and Alternative Communication, University of Pretoria.

I understand that my input will be treated as confidential by the Researcher.

I agree to take part in the project.

| --- | --- | --- |
| ***Name of participant*** | ***Date*** | ***Signature*** |

Appendix 16

Biographical Information Form

For office use only

BIOGRAPHICAL INFORMATION

1. Participant Number: _____	V1	1-2
2. Group Number: (A or B) _____	V2	3
3. Testing Session: (1=pre, 2=post) _____	V3	4
4. Video 1 or Video 2 _____	V4	5
5. Female _____ Male _____	V5	6
6. Age in years _____	V6	7-8
7. Mark with an X your Mother-tongue language	V7	9-10

	YES
English	
Afrikaans	
Setswana	
Sesotho	
IsiZulu	
IsiXhosa	
Northern Sotho (Sepedi)	
IsiNdebele	
SiSwati	
Xitsonga	
OTHER	

8. How good would you rate your **SPEAKING English**? Mark your choice with an X — V8 11

Good	
Average	
Poor	

9. How good would you rate your **UNDERSTANDING English**?
Mark your choice with an X.

Good	
Average	
Poor	

V9 ☐ 12

10. What is your highest educational level?

Below Std 6 (Below Grade 8)	
Std 7 - 9 (Grades 9 -11)	
Std 10 (Matric) Grade 12)	
Tertiary	

V10 ☐ 13

11. How long have you been working for the Company?
_____ years

V11 ☐☐ 14-15

12. What is your position in the Company?

V12 ☐ 16

Customer Service Manager	
Customer Care Assistant	
Deli (Sales Assistant)	
Bakery (Sales Assistant)	
Butchery (Sales Assistant)	

13a) Do you know anyone who has a speech problem?
Yes _____ No _____

V13 ☐ 17

13b) If YES, what is his/her problem?

_____

_____

_____

_____

_____

V14 ☐☐ 18-19

V15 ☐☐ 20-21

APPENDIX 17

ICF (WHO, 2001) Constructs: broadly reflected in individual questions of pre-post questionnaires 1 and 2

Constructs broadly reflected in the ICF (WHO, 2001)	Relevant areas within the retail environment included within this construct	Questions to broadly reflect the selected constructs of the ICF (WHO, 2001)
1) Activities – execution of a task or action by an individual in the context in which they live (including all aspects of the physical, social and attitudinal world); and **Participation** – involvement in a life situation. Limitations or restrictions of the Activities and Participation domain can result from numerous reasons including a quantitative and qualitative alteration in which the individual may have difficulty carrying out these functions; as well as from the response within the environment to the individual such as e.g. the stigma present within society.	Focusing attention; solving problems; undertaking a single task independently, or in a group; carrying out a daily routine; handling stress or other psychological demands; conversation; moving around different locations; maintaining and managing interactions with others in a contextually-and-socially-appropriate manner – including relating to strangers; engaging successfully in simple economic transactions.	**Questionnaire 1**: Questions 1; 2; 3; 4; 5; 8; 9; 10; 11; 13; 15; 17;18 **Questionnaire 2:** Questions 2; 3; 4; 15
2) Environmental factors comprise the physical, social and attitudinal environment in which people live and conduct their lives. Barriers or facilitators in the environment can impact on the individual, and hinder or increase one's performance.	Distracting environmental noise and busyness in the shop; support provided by strangers; individual attitudes of strangers that influence the individual's behaviour and actions.	**Questionnaire 1**: Questions 1; 6; 7; 11; 12; 14; 15; 16; 19; 20; 21 **Questionnaire 2**: Questions 1; 2; 3; 5; 6; 7; 8; 9; 10; 11; 12; 13; 14

Appendix 18

Objectives, results and recommendations following the pilot study

Objectives	Materials and Equipment	Procedures	Results	Recommendations
With respect to the 2 pre-and-post questionnaires, the following objectives were set:				
To determine the clarity and preciseness of the instructions given to the participants before viewing the videos.	Instructions read to the participants by the researcher	Participants were informed about the procedures taking place over the next 4 hour period.	When completing the 2 questionnaires, some of the participants were noted to chat amongst themselves, and one of the participant's cell phone rang twice during this period.	Instructions were modified to include the need for all cell phones to be switched off in advance. In addition, participants to be informed not to chat amongst themselves when watching the videos and completing the questionnaires.
To determine the clarity and preciseness of the instructions given before completing the questionnaires.	2 training questions at the beginning of Questionnaire 1.	Participants were asked to complete 2 training questions about the video scenarios, to ensure they understood the instructions.	All participants were able to correctly answer the 2 sample questions.	Participants appeared to follow the directions with ease, and all answered the 2 training questions correctly.
To determine the ability of the participants to fill in all biographical information at the top of Questionnaire 1.	Biographical Information form.	All participants were required to complete 14 biographical questions.	All participants completed the information appropriately, with the exception of one participant who arrived late (she had car trouble!) and only answered 9 out of the 14 questions. Two participants rated their ability to speak English as good, and three rated their speaking English as average; while three participants rated their understanding English as good, and two as average. All 5 participants had completed a variety of training programs within their stores.	Instructions were modified to include the need to ensure that all biographical information and questions were answered. The information concerning in-store training programs was considered redundant to the aims of the study, and therefore deleted in the final version of the Biographical Information Form (*Appendix 16*).

Appendix 18 (continued). Objectives, results and recommendations following the pilot study

Objectives	Materials and Equipment	Procedures	Results	Recommendations
To determine the ease of use of the pre-post questionnaire administrations 1 and 2, and the clarity of terminology used in the questions, both before and after pilot training exposure.	Questionnaires 1 and 2	Participants were asked at the end of each questionnaire to evaluate the questions for complexity and understanding.	On both occasions when each of the questionnaires were completed (before and after the pilot training exposure), none of the participants evaluated the questions as requested. Instead, they answered a number of questions again. No questions were noted by the participants as unclear or difficult.	Given the nature of the input from all participants, the questions in both questionnaires were considered unambiguous and clear to follow. No modifications made for the main study.
To determine the time taken by the participants to view 2 videos scenarios (scenarios 1 &2), and to complete 2 questionnaires.	Time planned by researcher in advance within the program format for the entire pilot session.	Participants were closely observed and timed during the first and last part of the pilot session, where they observed 2 pre-and-post questionnaire video scenarios, and completed 2 questionnaires.	Time taken to view 2 videos and then complete 2 questionnaires fitted in comfortably within the hour allocated for each of these sessions. Participants did not rush to complete the questionnaires.	No modifications needed to this time plan for the experimental phase of the main study.
To evaluate the ease of coding the pre-and-post questionnaires.	Questionnaires 1 and 2.	The researcher coded both questionnaires before and after training to ensure the ease of coding.	No problems encountered with coding.	No adaptations required.
To test the intended analysis of data.	Questionnaires 1 and 2.	Basic statistical procedures were performed eg. frequency counts and two-way frequency tables for each question on questionnaire 1 and 2.	These basic procedures highlighted trends in relation to responses to the questions on both the questionnaires.	In discussion with the statistician, procedures were found to be adequate for reflecting trends of performances in pilot study.
With respect to the pilot training session (Table 4.14), the following objectives were set:				
To test the clarity of instructions given to participants during training.	Handout. Transparency.	All instructions pertaining to discussion in small groups was given in the same format by the researcher as was planned for the experimental phase of the main study.	All participants understood the instructions clearly.	No adaptations required.

Appendix 18 (continued). Objectives, results and recommendations following the pilot study

Objectives	Materials and Equipment	Procedures	Results	Recommendations
To test the ability of the participants to participate in small groups and evaluate the video material.	Handout Transparency.	For the pilot training, the participants were asked to work as a group to discuss various specific questions around the video material, with one person acting as the co-ordinator to provide feedback.	All participants were noted to participate actively in this group. In addition, when asked for feedback about the group work, all participants rated this as valuable time- "*giving us time to think more about the videos."*	No adaptations made.
To examine the reality of the video scenarios viewed, and whether the participants could relate to the video scenarios.	Video scenario 3.	A different video scenario using customers with a TBI (from the pre-and post-questionnaire scenarios) was shown to the group of participants (Scenario 3).	The participants identified with the example used in the video scenario, although only 3 out of the 5 participants noted that they had ever dealt with customers with speech problems. All 5 participants commented on how these customers were like some of their *"difficult customers."*	The same video scenarios to be used in the experimental phase of the main study.
To evaluate pacing and sequencing of the pilot training session, and the overall length of time taken to complete the pilot training session.	Program (Table 4.14)	Given the constraints of time allocated by supermarket chain for this pilot study, a sampling of the entire training program was used by the researcher with anticipated times allocated (Table 4.14).	The sequencing and pacing of the steps covered fitted in comfortably with the time allocated by the researcher, with ample time for discussion and sharing ideas by the group participants.	No adaptations made.
To test the use of the overhead transparencies; handouts; Coomber tape recorder and the flipchart as teaching aids.	Overhead projector and transparencies. Handouts. Flipchart. Coomber tape recorder.	Transparencies were used to highlight points for within the group discussion. In addition, a handout with the questions under discussion was placed on the table for participants to also refer to during their discussion. The researcher made frequent use of the flipchart to highlight main points made by the group participants.	Participants regularly looked at the transparency as well as the handouts while discussing within their group, and noted afterwards that it was helpful to remind them about the points they were discussing. In addition, the flipchart was noted as a very useful reference source by all participants.	No modifications needed to teaching aid format in experimental phase of the main study. The flipchart content served as an excellent summary for the researcher of content covered during the pilot session, making the need for the Coomber tape recorder during the experimental phase of the main study redundant.

Appendix 18 (continued). Objectives, results and recommendations following the pilot study

Objectives	Materials and Equipment	Procedures	Results	Recommendations
To determine the interest level and perceived benefit by all participants from the training session.	Pilot training Evaluation Form.	At the end of the pilot training session, an evaluation form was given to each participant comprising 4 specific questions on a 3-point rating scale, and 3 open-ended questions.	All participants participated actively and with enthusiasm over the entire pilot period of 3 ½ hours. All 5 participants rated the pilot training session very highly. They felt that the session would help them deal better with customers who have different needs, and would recommend the training session to their colleagues. Positive responses expressed in the open-ended questions, with all participants noting that no aspects of the training session should be omitted in future. Comments noted included: * "*We should train our sales assistants about different customers especially the disabled ones,*" * "*I think this is a very good program and all employees of the company should do it-especially store managers because some of them are very impatient and some of them can't handle a stressful situation.*" * "*We've never had to think about stuff like this before – very useful!"*	Clearly the participants enjoyed and felt they benefited from this program.
To evaluate the input gathered by the Training Evaluation Form.	Training Evaluation Form.	The researcher noted trends of answers by all participants to all items on the Training Evaluation Form.	While the input gathered from all participants was very positive, the questions reflected an overview rather than detailed input on different aspects of the session.	Training Evaluation Form modified for the experimental phase of the main study to ask more focused questions pertaining to the training session, the video scenarios, and the use of the Research Assistant with a TBI (*Appendix 27).*

Appendix 18 (continued). Objectives, results and recommendations following the pilot study

Objectives	Materials and Equipment	Procedures	Results	Recommendations
To determine the content validity of the pre-and-post questionnaires and the training session.	Pre-and-post questionnaires 1 and 2; and pilot training session.	The researcher examined each question on each of the 2 pre-and-post questionnaires in relation to the different parts of the training session (to be used in the experimental phase of the main study which they aimed to target). Questions were divided into questions primarily targeted, secondarily targeted, and general questions (*Appendix 19*).	Many of the questions from both questionnaires were reflected in each of the components of the training session. The content validity of the training and questionnaires was thus established.	No further modifications required for the experimental phase of the main study.
To determine the outcome of the pilot training session, and whether a shift occurred in the ability of the 5 participants to identify barriers and facilitators when serving a customer with a TBI after a training session exposure.	Pre-and-post questionnaire administration 1 and 2 after the pilot training session exposure.	Very close examination of, and comparison of responses by all participants to questionnaires 1 and 2 pre-and-post-pilot training session exposure.	While the pilot training was a shortened version of the full training session planned for the experimental phase of the main study, the following trends were noted: When comparing responses to questionnaires 1 and 2 pre-and post-administration, 67% and 70% respectively of the answers were unchanged across all participants. In spite of this, the discrepancies noted before and after the sample pilot training exposure was considered to highlight a shift in the awareness level of participants in dealing with this kind of customer. Trends noted included: Greater confidence in serving this kind of customer alone; in asking the customer to write something down if they couldn't be understood clearly; and greater awareness of the customer's ability to manage shopping alone in spite having speech /communication problems. One participant from the Deli moved from 5 Unsure responses on Questionnaire 1 to greater certainty after training. In contrast, one CSM became more unsure after training (7/20 items were responded with an Unsure on questionnaire 1) reflecting an increased unease with her perceptions regarding how to serve this kind of customer across different situations.	The training exposure used in the pilot was a 1½ hour sample of the 4 hour training session planned for the main study. Given this together with the assessment immediately afterwards in the pilot (as compared with 2 weeks later in the experimental phase of the main study), the shift observed in the 5 participants across the 2 questionnaires validated the training.

Appendix 19

Content validity of pre-and-post questionnaires 1 and 2

The table reflects the aim of determining the content validity of the pre-and-post questionnaires by examining the questions in relation to each slot of the training session

Training Slot	Training Content	Questions Primarily targeted	Questions secondarily targeted (more indirect impact)	General Questions
1a	Introduction and exposure to research assistant Derick (with a TBI).	**Q1:**	**Q1:** Q1; 2; 3;4;5;7;14;15; 17; 19; 20 **Q2:** Q1; 2; 3; 4; 5; 7; 8; 10; 12; 13; 14	
2	Diversity Awareness Fable – the Giraffe and Elephant (Roosevelt Thomas Jr., with Woodruff, 1999c) – small group discussion.			**Q1:** Q1; 2; 3; 6; 7; 15; 19; 20 **Q2:** Q 1; 2; 3; 4; 5; 7; 8; 10; 12; 13; 14
3	*Barriers* in shopping from the sales assistants' perspective, as well as the customer with a TBI's perspective. Discussion to take place around 2 questions given to small groups for discussion.	**Q1** Q6; 7; 9; 14; 15; 19;20 **Q2** Q5;6, 7;9;10;12;13;14	**Q1** Q1;2; 10, 11 ; 12; 17 **Q2** Q1;2; 3; 4;8;11;	**Q1** Q3; Q4 ;5; 8 ;13; 16; 18
4	Video scenario to examine possible *barriers and facilitators* when serving a customer with a TBI. Consider 3 questions abut barriers and facilitators while watching video and discuss in small groups. Summarize groups' list of *Do's and Don't s* around such transactions.	**Q1:** Q 1; 2; 3; 4; 5; 6; 8; 9; 10; 12; 14; 15; 19; **Q2:** Q1; 2; 3; 4; 5; 6; 8; 10; 12; 13;	**Q1:** Q7; 13; 17; 20 **Q2:** Q7; 9; 11; 14	**Q1:** Q 16; 18

Training Slot	Training Content	Questions Primarily targeted	Questions secondarily targeted (more indirect impact)	General Questions
5	Additional video scenarios to examine *barriers and facilitators* when serving a customer with a TBI. Consider the same 3 questions about barriers and facilitators while watching video, and discuss in small groups.	**Q1:** Q 1; 2; 3; 4;5; 6; 8; 9; 10; 12; 14; 15; 19; **Q2:** Q1; 2; 3; 4; 5; 6; 8; 10; 12; 13	**Q1:** Q7; 13; 17; 20 **Q2:** Q7; 9; 11; 14	
6	Review list of *Do's and Don'ts* from both the group input, as well as input from focus groups in pilot study, to raise awareness of *barriers and facilitators*. Summarize the group's list of *Do's and Don'ts* around such transactions.	**Q1** Q 1; 2; 3; 4; 5; 6; 8; 9; 10; 12; 14; 15; 19 **Q2** Q1; 2; 3; 4; 5; 6; 8; 10; 12; 13	**Q1** Q7; 13; 17; 20 **Q2:** Q7; 9; 11; 14	**Q1:** Q 16; 18
7	Integration of material covered - small group discussion summarizing the potential range of *barriers* that could intervene in a sales transaction with a customer with a TBI.	**Q1** Q6; 7; 9;14; 15; 19;20 **Q2** Q5;6, 7;9;10;12;13;14	**Q1** Q1;2; 10, 11 ; 12; 17 **Q2** Q1;2; 3; 4;8;11;	**Q1** Q3 ; Q4 ;5; 8; 13; 16; 18
8a	Summary and integration of all material covered - integrating thinking into a formulation of a list of tips (*facilitators)* when serving a customer with a TBI. Discussion in group as a whole.	**Q1:** Q 1; 2; 3; 4;5; 6; 8; 9; 10; 12; 14; 15; 19; **Q2:** Q1; 2; 3; 4; 5; 6; 8; 10; 12; 13	**Q1:** Q7; 13; 17; 20 **Q2:** Q7; 9; 11; 14	**Q1:** Q 16; 18

Appendix 19 (continued). Content validity of pre-and-post questionnaires 1 and 2

KEY: Q1 = Questionnaire 1
Q2 = Questionnaire 2

Appendix 20

Introduction to experimental group by Research Assistant Derick (with a TBI)

Hi, my name's Derick and I want to tell you about the accident I survived in 1986. After I regained consciousness I found myself living in a strange body that didn't do what I wanted it to ... this included an inability to walk. As a result, I was confined to a wheelchair and I had Physiotherapy 5 times per week. I was able to utter single words, but not sentences - to begin with, and also received Speech Therapy twice a week for a long time. This meant that I didn't say much due partly to society's impatience with anybody who's different to them.

When anybody regains consciousness after they have suffered a traumatic brain injury (TBI), they find themselves in a strange body i.e. one that doesn't react the way the old body did. A TBI affects other parts of the body - the brain is the command-centre of the body after all. A TBI can also cause damage to a person's ability to communicate intelligently, clearly, and it may also affect the way a person can remember the names of things. This of course causes unaffected (or "normal") people to become impatient with the person who talks with a different-sounding voice.

Stop for a moment and imagine if you were to serve someone like me, or even someone who speaks much worse than me (***BIG PAUSE***!!!!!) …….That could be very hard for you - especially if the shop is very busy. Maybe the customers' speech is hard to understand, and maybe they can't think of the right words for the items they are talking to you about. By the way, when the shop is very busy and a customer with a TBI is standing in a busy long line, it's hard for them to cope with the pressure of the lines, so that something like dealing with money and correctly sorting out change can be a real problem.

Did I mention that a TBI also commonly affects a person's short term memory? That causes the person not to be able to remember things on a short term basis. So they find themselves "being lost" in a place they've been to before e.g. in a shop - and that's not even to start talking about finding their shopping lists - or even finding their car in a parking-lot full of cars that look pretty much the same! A TBI may cause damage to a person's motor movements, so the individual's flexibility suffers e.g. so they may have an inability to reach for items on the top shelf of the store and also need some help with that.

Well – it's now time for us to move on – but I will be around today so I will be able to chat to you and answer any questions you may think about and want me to try and answer. Thanks a lot.

Appendix 21

Main study: Training Session (Session 2) for experimental groups: Slots 1 – 8

SLOT	TIME ALLOCATED	TOPIC	CONTENT	Equipment and Instructional Method
Slot 1a	**Total Time: 15 minutes**	Introduction to the day, setting the context, and introducing assistants: Research Assistant Marjan, and Derick (with a TBI).	Welcome everyone back and thank them for their time and their commitment, and for the useful information they provided on Session 1 through the questionnaires. Aim today to help you to identify customers who might need a different kind of service and to explore strategies that will help both you as a sales assistant in a supermarket, and your customers to have a more successful and pleasant shopping transaction. At the end of today I hope you will be more confident in dealing with customers like Derick who have a TBI and who might have different needs. Introduce Research Assistant Derick and brief background about himself. Invite him to say a few things about himself in relation to difficulties he has with shopping as a result of his TBI.	Participants to sit at 5 tables (7 per table) facing the front. If possible to sit with people they don't usually work with. Lecture
Slot 1b	**Total Time: 3 minutes**	Ask participants to put a cross on the line to rate how confident they currently feel about serving customers with a TBI.	Confidence Rating Scale (pre-training) provided on a sheet on the table in front of each participant (*Appendix 25*).	Confidence Rating Scale: Pre-training

Appendix 21 (continued). Main study: Training Session (Session 2) for experimental groups: Slots 1 – 8

SESSION	TIME ALLOCATED	TOPIC	CONTENT	Equipment and Instructional Method
Slot 2	**Total Time: 15 minutes** **(3 – 5 minutes)** **5 minutes** **5 minutes**	The ***Giraffe and the Elephant Fable*** (Roosevelt Thomas (with Woodruff) (1999c)) (*Appendix 22*)	Read the *Giraffe and the Elephant Fable* Ask the participants to turn to the person next to them and have a quick discussion on: *How does this fable help us think about how we serve different types of customers in our stores?* *(Question presented on overhead transparency for all to see and consider)* Quick feedback from a few participants **If no one says anything – Prompt them with, eg: "Some of the things that you might include are, for example: It shows us how we often expect people who are different from us to fit into our way of doing things.** The elephant wanted the same thing as the giraffe but needed a different way of achieving it. So what does that help us to think about when we serve customers who have different needs? *Conclusion*: The following sessions will examine ways we deal with different kinds of customers, and serving them more comfortably…..	Lecture Overhead projector Overhead transparencies Feedback
Slot 3	**Total Time: 45 minutes** **10 minutes** **10 minutes**	Provide an opportunity for the participants to start thinking about the issues involved in transactions with customers with TBI both from their, and the customers' perspective.	Using the groups of 7 participants per table, designate one person to write down input on a flip chart piece of paper on the table. To help you think about the video you saw 2 weeks ago, think also about anyone you know or have served that might have a TBI, and consider what Derick has shared with us today as well. Have the groups consider the following 2 questions (Overhead transparency) *Question 1:* Imagine that you were the customer with a TBI. What do you think the range of potential difficulties (physical and emotional) you might encounter when shopping in a supermarket? *Have a small group participant put up the flipchart paper and make some reflections/ summarize combined input*	Lecture Flip chart Overhead projector Overhead transparencies Feedback

Appendix 21 (continued). Main study: Training Session (Session 2) for experimental groups: Slots 1 – 8

SLOT	TIME ALLOCATED	TOPIC	CONTENT	Equipment and Instructional Method
	10 minutes **10 minutes** **5 minutes**		*Repeat the process with the next question.* *Question 2:* If you were the sales assistant, what difficulties do you think you might encounter when serving such a customer with TBI? Have a small group participant put up the flipchart paper and make some reflections./ summarize combined input. At the end Researcher to make some reflections about the range of things that have been said, emphasizing how there is no formula to apply in every situation, but that if they are more aware of the barriers, and notice customers who might be experiencing these difficulties, they can start to address them.	
			TEA (15 MINUTES)	
Slot 4	**Total Time: 55 minutes** **9 minutes discussion and 10 minutes feedback** **5 minutes discussion and 5 minutes feedback** **5 minutes discussion and 5 minutes feedback**	Video scenario 3 of 2 customers with a TBI in the supermarket interacting with a sales assistant.	Remind the group that a good transaction is one where both the customer and the sales assistant feel comfortable – facilitating polite and efficient transactions. Show video, and have each group consider three questions while they are watching the video. (*Questions in front of each group on the table and on Overhead for all to refer to*). *Question 1:* In relation to our discussion earlier, what difficulties do you think these customers had while shopping? *Question 2:* What did the sales assistant/manager do that was helpful for these customers? *Question 3:* What did the sales assistant/ manager do that was unhelpful? Before lunch researcher summarizes on a flipchart under the heading of *Do's and Don'ts* what they have learnt so far……	Proxima Projector Video scenario 3 (Table 4.6) Lecture Flip chart Overhead projector Overhead transparencies Feedback

Appendix 21 (continued). Main study: Training Session (Session 2) for experimental groups: Slots 1 – 8

SLOT	TIME ALLOCATED	TOPIC	CONTENT	Equipment and Instructional Method
	Time: 10 minutes		We have said that customers with TBI will demonstrate a range of different behaviours. In the video – we started to identify some things that will help us to have successful transactions, and some that will not. Briefly go over what these were. Open up discussion in group to ask Research Assistant Derick any further questions.	
			LUNCH (45 MINUTES)	
Slot *5*	**Total Time: 30 minutes** **10 minutes** **10 minutes** **10 minutes**	Examine video scenarios 4 – 7.	Participants to watch the scenarios in relation to the same three questions (used in Slot 4) . Participants asked to consider the barriers and facilitators in relation to these videos. (*Questions in front of each group on the table).* *Question 1:* Which of the issues that we identified earlier did you notice about the customer in the video? *Question 2:* What did the sales assistant/manager do that was helpful for the customer? *Question 3:* What did the sales assistant/ manager do that was unhelpful for the customer? Input noted by 1 member of each group and then presented briefly to group as a whole. Open up discussion in group to ask Research Assistant Derick any further questions.	Proxima Projector Video scenarios 4 -7 (Table 4.6) Flip chart Overhead projector Overhead transparencies Feedback
Slot *6*	**Total Time: 20 minutes**	Review the list drawn up so far of *Do's and Don'ts* by the group for possible barriers and facilitators in sales transactions involving a customer with a TBI.	Compare the group's list (Drawn up in Slot 4) with a list provided by Researcher on an **Overhead** (*Appendix 23*).	Lecture Flip chart Overhead projector Overhead transparencies Feedback

Appendix 21 (continued). Main study: Training Session (Session 2) for experimental groups: Slots 1 – 8

SLOT	TIME ALLOCATED	TOPIC	CONTENT	Equipment and Instructional Method
Slot 7	**Total Time: 10 minutes**	Reflecting back to original flipcharts to check everything has been covered.	Review input so far concerning the list of potential barriers that a customer might encounter; the problems the sales assistant might have in serving this customer; and how best to facilitate this transaction from both the customer and sales assistants' perspective. Open up discussion in group to ask Research Assistant Derick any further questions.	Lecture Flip chart Overhead projector Overhead transparencies Feedback
Slot *8a*	**Total Time: 30 minutes**	Summarize the major issues and the views discussed in training by the group participants. Review list of strategies that would be helpful when dealing with a customer with a TBI suggested earlier on, and add to this list to develop a list/ resource of points covered in training for use within the store. Formulate these points into some kind of personalized list for each participant.	Each participant given a page /template with a line drawing of the supermarket shopping bag and marker to write their own personalized list of *Do's and Don'ts* (Kagan & Shumway, 2003g). (*Appendix 24*) Each page to be laminated by the researcher and given back to each participant for their future in-store use/ reference.	Lecture Flip chart Overhead projector Overhead transparencies Feedback
Slot *8b*	**Total Time: 3 minutes**	Ask participants to put a cross on the line as to how confident they currently rate themselves in serving customers with a TBI.	Confidence Rating Scale (post-training) provided on a sheet on the table in front of each participant (*Appendix 26*)	Confidence Rating Scale: Post–training

Appendix 21 (continued). Main study: Training Session (Session 2) for experimental groups: Slots 1 – 8

SLOT	TIME ALLOCATED	TOPIC	CONTENT	Equipment and Instructional Method
Slot *8c*	**Total Time: 10 minutes**	All participants to complete a Training Session Evaluation Form.	Each participant given a Training Session Evaluation Form to complete (*Appendix 27*)	Training Session Evaluation Form
Slot 8d		*Certificate of Attendance* from the University of Pretoria for all participants (*Appendix 28*).		
TOTAL TIME TRAINING SESSION 236 MINUTES				
LUNCH				

Appendix 22

The Giraffe and the Elephant
(Roosevelt Thomas, Jr.(with Woodruff, M.). (1999c), p.3).

In a small suburban community just outside the city of Atriodact, a giraffe had a new home built to his family's specifications. It was a wonderful house for giraffes, with soaring ceilings and tall doorways. High windows ensured maximum light and good views while protecting the family's privacy. Narrow hallways saved valuable space without compromising convenience. So well done was the house that it won the National Giraffe Home of the Year Award. The home's owners were understandably proud.

One day the giraffe, working in his state-of-the-art wood shop in the basement, happened to look out the window. Coming down the street was an elephant. "I know him," he thought. "We worked together on a PTA committee. He's an excellent woodworker too. I think I'll ask him to see my new shop. Maybe we can even work together on some projects." So the giraffe reached his head of the window and invited the elephant in. The elephant was delighted; he had liked working with the giraffe and looked forward to knowing him better. Besides, he knew about the wood shop and wanted to see it. So he walked up to the basement door and waited for it to open. "Come in; come in," the giraffe said. But immediately they encountered a problem. While the elephant could get his head in the door, he could go no farther.

"It's a good thing we made this door expandable to accommodate my wood shop equipment," the giraffe said. "Give me a minute while I take care of our problem." He removed some bolts and panels to allow the elephant in. The two acquaintances were happily exchanging wood-working stories when the giraffe's wife leaned her head down the basement stairs and called to her husband: "Telephone, dear; it's your boss."

"I'd better take that upstairs in the den," the giraffe told the elephant. "Please make yourself at home; this may take a while."

The elephant looked around, saw a half-finished project on the lathe table in the far corner, and decided to explore it further. As he moved through the doorway that led to that area of the shop, however, he heard an ominous scrunch. He backed out, scratching his head. "Maybe I'll join the giraffe upstairs," he thought. But as he started up the stairs, he heard them begin to crack. He jumped off and fell back against the wall. It too began to crumble. As he sat there disheveled and dismayed, the giraffe came down the stairs.

"What on earth is happening here?" the giraffe asked in amazement.

"I was trying to make myself at home," the elephant said. The giraffe looked around. "Okay, I see the problem. The doorway is too narrow. We'll have to make you smaller. There's an aerobics studio near here. If you'd take some classes there, we could get you down to size."

"Maybe," the elephant said, looking unconvinced.

"And the stairs are too weak to carry your weight," the giraffe continued. "If you'd go to the ballet class at night, I'm sure we could get you light on your feet. I really hope you'll do it. I like having you here."

"Perhaps," the elephant said. "But to tell you the truth, I'm not sure that a house designed for a giraffe will ever really work for an elephant, not unless there are some major changes."

Appendix 23

Overhead: List of *Do's and Don'ts* in the retail environment when serving customers with a TBI

***Don'ts* might include:**

- Don't treat a customer with a TBI as if they are stupid and have a patronizing attitude towards them.
- Don't be uncomfortable or embarrassed when serving this customer who may be more time-consuming than most.
- Don't talk too loudly to the customer when serving them.
- Don't ask the customer immediately if they have someone with them who can help with the request.
- Don't direct your attention to the person accompanying the customer as if the customer is stupid and unable to deal with the request themselves – especially when the customer has made the request to you themselves.
- Don't speak about the customer in another language as if they are not there and cannot understand or speak for themselves.
- Don't use phrases such as: "I have a friend who also speaks funny/ uses a wheelchair etc." so as to be more comfortable and social with this customer!
- Don't serve the customer impatiently.

***Do's* might include**:

- Ensure the shop is accessible to all members of the community – with accessible access to the stores; toilet facilities; wider aisles, product access etc.
- Offer help when the customer appears to need it eg when struggling to find an item placed too high on the shelf; or sorting out change.
- Monitor your response to this customer eg: be patient with this customer who may need extra time to do or say something; or who might be aggressive or behave inappropriately.
- Consider how you would serve this customer at the end of the month when the shop is very busy.
- Feel comfortable about serving this customer, and don't immediately call the manager or one or several other colleagues to help you.
- Serve this customer using the same store rules as you would for all customers, but be willing to modify if necessary and appropriate.
- Listen carefully to what the customer is requesting if they are hard to understand.
- Clarify the customer's needs by repeating their request…"*Did you mean*….?" if they are hard to understand.
- Do use a piece of paper and a pen to help a customer who is hard to understand to assist them in communicating their request.
- Let go of stereotypes about this kind of person, and treat the customer respectfully as an intelligent adult – by speaking to them naturally and using an adult tone of voice.
- End the interaction quickly and politely when the sales transaction cannot be completed.
- Do talk in the customer's language while in the presence of the customer if you need to consult with a colleague about the customer's request.
- Possibly have a trained customer service person in the shop to assist customers with all kinds of disabilities.
- Explain the company policy to the customer clearly and politely if their request is inappropriate/ unavailable.

Appendix 24

Template of shopping bag: List of *Do's and Don'ts*

Appendix 25

Confidence Rating Scale: Pre-training

Centre for Augmentative and Alternative Communication
University of Pretoria
Pretoria
0002

For Official Use Only

Participant Number: _____	V1 ☐☐ 1-2

1. Please place an X on the line below to rate how confident you presently feel about dealing with customers with a Traumatic Brain Injury. 1 2 3 4 5 Not Confident Very Confident	E1 ☐ 3

Appendix 26

Confidence Rating Scale: Post-training

Centre for Augmentative and Alternative Communication
University of Pretoria
Pretoria
0002

For Official Use Only

Participant Number: _____	V1 ☐☐ 1-2

2. Please place an X on the line below to rate how confident you presently feel about dealing with customers with a Traumatic Brain Injury. 1 2 3 4 5 Not Confident Very Confident	F1 ☐ 3

Appendix 27

Training Session Evaluation Form

Centre for Augmentative and Alternative Communication
University of Pretoria
Pretoria
0002

Thank you for your commitment and participation, and I greatly appreciate your feedback.

Please look at each statement below, and put an X to show if you agree, disagree or are unsure about each of the following statements regarding the training that you received.

For Official Use Only

Participant Number: _____	V1 ☐☐ 1-2

1. PRESENTATION OF THE TRAINING SESSION

	Agree	Unsure	Disagree	
The trainer was well prepared for the training.				G1 ☐ 3
The training sessions were logically planned and presented.				G2 ☐ 4
The length of the training was sufficient.				G3 ☐ 5
The videos provided useful training material.				G4 ☐ 6
There were enough opportunities for participation during training.				G5 ☐ 7
The training will help me and my colleagues deal better with customers with a traumatic brain injury.				G6 ☐ 8
I would recommend this training session to my other colleagues to help them serve customers with a traumatic brain injury more competently.				G7 ☐ 9
Meeting Derick today was helpful in training				G8 ☐ 10

2. OVERALL RATING OF TRAINING SESSION

(Mark with an X)

1= poor 5= very good

1	2	3	4	5

G9 ☐ 11

Appendix 27 (continued). Training Session Evaluation Form

3. COMMENTS AND SUGGESTIONS FOR FURTHER TRAINING _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	G10 ☐ 12 G11 ☐ 13 G12 ☐ 14 G13 ☐ 15

Thank you for taking the time to complete this form

Glenn Goldblum

Appendix 28

Certificate of Attendance

University of Pretoria

The Centre for Augmentative and Alternative Communication

I, the undersigned, acting as representative of the aforementioned, hereby certify that

Attended the following 4 hour Training Session:

TRAINING SALES ASSISTANTS TO SERVE CUSTOMERS WITH A TRAUMATIC BRAIN INJURY

Presented by

Glenn Goldblum

At the _____ Northern Region Support Office

During
April 2005

Centre for Augmentative and Alternative Communication (CAAC) UNIVERSITY OF PRETORIA Communication Pathology Bldg Pretoria, 0002 Tel (012) 420-2001 Fax (012) 420-4509

OFFICIAL STAMP

SIGNATURE ON BEHALF OF PROVIDER

DESIGNATION: PROF E. ALANT. DIRECTOR: CAAC

DATE: 18 APRIL 2005

PLACE : PRETORIA

Appendix 29A

Distribution of service level in the supermarket store within the experimental and control groups

	EXPERIMENTAL GROUP (n)	CONTROL GROUP (n)	P-value
Customer Service Manager	13	8	0.1864
Customer Care Assistant	11	11	
Deli /Bakery sales assistant	7	14	

Appendix 29B

Means, standard deviations and P-values for age; and number of years working for the supermarket chain in the experimental and control groups

	EXPERIMENTAL GROUP	CONTROL GROUP	
Age			**P-Value**
Mean	38.3870	41.9393	0.0851
Standard Deviation	9.3047	8.9580	
Minimum	23.000	23.000	
Maximum	59.000	58.000	
Years working for supermarket			**P-Value**
Mean	10.8710	11.0606	0.8930
Standard Deviation	7.3518	6.9997	
Minimum	1.0000	1.0000	
Maximum	28.000	25.000	

Appendix 29C

Home language spoken by participants in the experimental and control groups

	EXPERIMENTAL GROUP (n)	CONTROL GROUP (n)
English	6	2
Afrikaans	3	3
Setswana	7	10
Sesotho	2	4
Isizulu	2	2
IsiXhosa	2	1
Northern Sotho	5	8
IsiNdebele	2	
SiSwati		2
Xitsonga		1
Venda	2	

Appendix 29D

Ability to speak, and understand English as perceived by the participants in the experimental and control groups

	EXPERIMENTAL GROUP		CONTROL GROUP		
	(n)	%	(n)	%	P-value
Ability to Speak English					0.3691
Good	26	83.87	24	72.73	
Average	5	16.13	9	27.27	
Poor	0		0		
Ability to Understand English					1.000
Good	26	83.87	28	84.85	
Average	5	16.13	5	15.15	
Poor	0		0		

Appendix 29E

Distribution of educational level within the experimental and control groups

	EXPERIMENTAL GROUP (n)	CONTROL GROUP (n)	P-value
Below Std 6	0	3	0.3496
Std 7-9	12	9	
Std 10	9	12	
Tertiary	10	9	

Appendix 29F

Awareness of someone with a speech problem

	EXPERIMENTAL GROUP (n)	CONTROL GROUP (n)	P-value
Aware of someone with a speech problem	16	19	0.8020
Unaware of someone with a speech problem	15	14	