

## CHAPTER 1 INTRODUCTION

### 1.1 INTRODUCTION

Statistics in South Africa have revealed a relatively high incidence of children who have little or no functional speech (LNFS). A survey of children (3 – 12 years) in schools for children with cognitive disabilities in the Pretoria area, indicated that approximately 39% of these children had LNFS. This figure is considerably higher than in other international surveys (Bornman 1995). Possible factors include the lack of early intervention and therapeutic services, limited knowledge and insufficient training of teachers and low teacher and parental expectations of children with LNFS. The high incidence is also a reflection of the numerous primary and secondary socio-economic problems of less developed countries and disadvantaged communities. However, it is the attitudes of members of the community, in particular attitudes of children towards their peers with LNFS, that is the focus of this research.

In this chapter the context of the research, in terms of communication and factors influencing successful communication, is discussed. The key terms that require clarification are then defined, followed by a list of the abbreviations used throughout the study.

### 1.2 THE CONTEXT AND STATEMENT OF THE PROBLEM

'Without a doubt, my inability to speak has been the single most devastating aspect of my handicap. If I were granted one wish and one wish only, I would not hesitate for an instant to request that I be able to talk, if only for one day, or even one hour' (Sienkewicz-Mercer & Kaplan 1989, pp. 12-13).

The lack or loss of a means to communicate denies us the ability to express our human individuality and dignity. The familiar phrase '*communication is the essence of human life*' highlights how imperative interaction with others is for our very existence. People communicate

because they are social beings. Whether we communicate by talking, writing, waving, smiling, or listening, the process is a dynamic one and takes place between people. The four main purposes of communication as defined by Janice Light (1988) are to express needs and wants, exchange information, conform to expected social etiquette and develop social closeness. Of these four, the latter is considered paramount. Communication is fundamental to the development of relationships of children and adults through the sharing of experiences, emotions, personal secrets, aspirations and dreams - whether or not one is disabled.

The use of Augmentative and Alternative Communication (AAC) systems provides children with LNFS the opportunity to engage in this communicative process. The attitudes of communication partners, particularly peers, are one of the most significant aspects influencing the success of AAC intervention. AAC users have disclosed that they are frequently ignored, often shouted at as if hearing impaired and are seldom addressed directly, and their cognitive ability is underrated. Studies of AAC users interacting with both familiar and unfamiliar partners have revealed the tendency of speaking partners to direct interactions and to alter the form and content of any questions they ask. In addition, speaking partners frequently dominate conversational exchanges, complete the AAC user's message for them and interrupt or even change the content of the AAC user's message. Young AAC users are often described as being passive communicators who seldom initiate communication.

As stated, the outcome of AAC intervention can be significantly influenced by the attitudes of partners, and both clinicians and researchers are realising the importance of programmes to influence partners' attitudes and behaviours toward AAC users (Kraat 1987). The importance of including peers in intervention with the child with LNFS has been recognised for some time. However, peer training has frequently not been implemented, partly due to the lack of knowledge about how peers think and relate to children with disabilities and LNFS.

The need to increase our knowledge, not only of the processes that occur when AAC users interact with speaking partners but also of how features of various AAC systems impact on the interaction, has been highlighted (Light 1988). Evidence that communication device characteristics e.g. voice output, have a significant effect on the attitude and perceptions of partners and their willingness to

interact with the user has been widely described (Gorenflo & Gorenflo 1991; Hoag & Bedrosian 1992; Higginbotham in O'Keefe, Brown & Schuller 1998).

The purpose of this research is to determine whether the attitudes of children, aged 11 – 13 years, to unfamiliar peers who use AAC devices, vary according to whether or not the device used has voice output.

The major hypothesis is that voice output will have a positive effect on the attitudes of peers towards a disabled child using an AAC device. A subordinate hypothesis is that girls will have more favourable attitudes than boys will to the disabled peer using a device.

### **1.3 OUTLINE OF THE CHAPTERS**

In Chapter 1 the motivation for the study is presented and the contents of the chapters briefly described. Key terms are defined and abbreviations used in the study are listed.

Attitudes toward children and adults with disabilities, including people with speech disorders or those with LNFS, are described extensively in Chapter 2. A theoretical model of attitudes is presented followed by a discussion of the influence of attitudes on behaviour. The effects of stereotypical attitudes toward persons with disabilities are described, in addition to strategies to reduce stereotyping. Previous research findings on the impact of the output mode, including speech output, are presented and the attitude scales used by previous researchers are evaluated.

The research methodology is detailed in Chapter 3. The research design is followed by details of the pilot study. The discussion on the main study includes a profile of the sampling strategy used, the criteria for selecting subjects, and a detailed description of the subjects. The rationale for the development of the survey instrument, the CADAQ, and the content of the CADAQ, are explained. The videotapes used as the stimulus material, as well as ethical issues pertaining to the videotaped subjects and the study participants, are discussed. An account of the data collection and statistical procedures concludes chapter 3.

The results of the main study are presented and discussed in Chapter 4. The influence of voice output and the gender of the participants on the results are highlighted. Issues relating to the reliability of the questionnaire are presented. The chapter ends with possible explanations for the relatively high frequency of undecided responses to specific statements in the questionnaire.

Chapter 5 contains discussions of the conclusions and clinical implications of the research. The research is evaluated and recommendations made for possible future research.

#### 1.4 DEFINITION OF TERMS

The following key terms are frequently used and require clarification:

- **Attitude:** For the purpose of this study the following definition has been used. 'An attitude may be conceptualised as a learned predisposition to respond positively or negatively to certain objects, situations, institutions, concepts, or persons. As implied by this definition, attitudes possess cognitive (beliefs, knowledge, and expectations), affective (motivational and emotional), and performance (behaviour or action) components'. (Aiken 1996, p. 226).
- **Augmentative and Alternative Communication:** '(1) the supplementation or replacement of natural speech and/or writing using aided and/or unaided symbols. The use of aided symbols requires a transmission device whereas the use of unaided symbols requires only the body. (2)The field or area of clinical/educational practice to improve the communication skills of individuals with little or no functional speech' (Lloyd, Fuller & Arvidson 1997, p. 524).
- **Communication:** In this research it is considered to be a multimodal composite of behaviours for the purpose of exchanging thoughts or ideas from one person to another irrespective of the means e.g. speech, gestures, writing or graphic representations. Communication may or may not be linguistic and takes place between people to achieve the communicative functions of the expression of needs, the transfer of information, the promotion of social closeness or to meet social etiquette norms.

- **Interaction:** 'The process that occurs when people come together' (Bullowa in Kraat 1987). It does not necessarily imply that words are spoken but that a cyclical interplay of actions and reactions between two or more people takes place (Kraat 1987).
- **Voice Output:** The output mode of a communication device that utilises either digitised or synthetic speech output. Digitised speech is 'electronically produced when the human voice is recorded and digitised' (Lloyd, Fuller & Arvidson 1997, p. 528). Synthesised speech is 'artificially produced (e.g. by electronic means) rather than by the human vocal tract. It is highly flexible and can use text-to-speech to produce virtually any typed message. There is a wide range of quality depending on the rules/algorithms stored in the computer memory. In general the intelligibility of synthesised speech is not as high as digitized speech' (Lloyd, Fuller & Arvidson 1997, p. 540).

## 1.5 ABBREVIATIONS

The following abbreviations are used frequently throughout the study:

- AAC                      Augmentative and Alternative Communication
- ATDP Scale            Attitude Toward Disabled Persons Scale
- ATNP Scale            Attitudes Toward Nonspeaking Persons Scale
- CADAQ                 Communication Aid/Device Attitudinal Questionnaire
- CATCH                 Chedoke-McMaster Attitudes Toward Children with Handicaps Scale
- CP                        Cerebral Palsy
- LNFS                    Little or no functional speech
- SLP                      Speech Language Pathologist
- VOCA                    Voice output communication aid

## 1.6 SUMMARY

This chapter briefly highlighted the importance of the attitudes of communication partners in the AAC process. The impact of the output mode of a communication device on peers' attitudes and

their willingness to interact with an AAC user were presented as the basic premise for the study. Key terms and abbreviations were clarified.