CHAPTER I

PERSPECTIVES AND ORIENTATION

1.1 PROBLEM STATEMENT AND RATIONALE

The "gap between needs and services has major implications for the development of disabled children, their quality of life, and the roles they will be able to play in society" (Alant & Emmett, 1995: unnumbered). The gravity of this statement is enhanced by the fact that the risk for disabilities, or double the risk for those already displaying risk conditions (Escalona, 1987), is increased for children living in disadvantaged conditions (Patel, 1993). Mainly because of ignorance and attitudinal barriers, historically the main focus was often exclusively on the nurturing and caring for these children (Peck & Furman, 1992). As expected, research found that children with limited or no functional speech, such as the intellectually impaired, communicate at a low rate (Rowland & Schweigert, 1993), some of the reasons being that they have few opportunities for meaningful interaction and that their communication partners (parents, caregivers, teachers) expect little or nothing of them. These conditions still exist, despite the well-known fact that "the actual occurrence of behavior depends on appropriate experience" (Shonkhoff & Meisels, 2000:11).

Over the years many health professionals have tried to address the above-mentioned issues, but due to a number of factors their efforts were not very successful. Conditions in South Africa created a situation where most health and rehabilitation services are centred in urban areas, while the highest prevalence of disability is found in the rural areas (Alant & Emmett, 1995). In two studies carried out by Matas, Mathy-Laikko, Beukelman and Legresly (1985) in the United States of America, they also established that the prevalence of children with communication disorders seems to be higher in rural than in urban areas. A lack of understanding of the multilingual and multicultural nature of our population further complicated the delivery of appropriate and effective services. The strict adherence to the medical model of service delivery prevented collaboration and active involvement by communities. Furthermore, the professionals' jealous guarding of the boundaries of

their disciplines limited the scope of, and a holistic approach to service delivery. In 1994 Blackstone stated, "we are moving away from the traditional models of service delivery to more community based, collaborative approaches to intervention" (1994:1), but this was not enough. The multifaceted nature of disability also had to be addressed by a handful of therapists, each specialising in his particular discipline. Although it has many implications, such as training, it is within the community-based service model that the introduction of transdisciplinary intervention was heralded with enthusiasm. It has become evident that research is needed to establish valid intervention programmes for the facilitation of communication-related behaviours that can be applied successfully by any member of a transdisciplinary team including non-professional members such as caregivers and parents.

An area that has not been addressed extensively enough is the nature and quality of intervention. Shonkoff (2000) observed "that the great empirical task of the future would be to identify what processes mediate the long-term effects of early intervention for economically disadvantaged children … to identifying factors that contribute to program efficacy" (Shonkoff & Meisels, 2000:xii; Lipsey & Wilson, 1993). Clinicians have applied foreign models and translated programmes on the basis of limited information, but these efforts have been criticised, as generalisation of cultural, geographic, social and linguistic norms is not possible (Lahey, 1988).

The lack of research relating to the validation of evaluation and intervention material relevant to the South African context have received much attention in the literature over the past decade. In fact, in the white paper of the Integrated National Disability Strategy (1997), it was emphasised that without proper validation formal intervention procedures used for children with disabilities, can be harmful. The dire needs of the disabled in South Africa, as well as the need to establish a valid and effective, transdiciplinary intervention programme for the holistic treatment of the intellectually impaired, inspired this research.

It is against this background that a play package developed by Uys (1997) was refined and validated in this research. A number of underlying assumptions and guidelines underpinned the orientation, planning and course of the project.

According to Shonkoff and Meisels (2000) childhood intervention is based on three assumptions. Firstly, all organisms are designed to adapt to their environment. Their developmental potential and behaviour are not predetermined by genetic factors or limited to a critical period beyond which change is not possible. Secondly, childhood development can only be understood within context, namely the interaction between the child and his environment. Thirdly, the range of services and supports needed by children must of necessity be diverse as children are confronted by a wide variety of opportunities and challenges. The implications of these assumptions are that development is an adaptive response and that children's potential for development should never be underestimated. Furthermore, intervention should always take place in a natural environment, meaningful to the child. As children's natural and main occupation is play (See Chapter 2), it is through play that all intervention should take place. Lastly, as the child's developmental needs are varied, different professional disciplines should be involved in intervention. Because of the paucity of manpower in the health and rehabilitation professions in South Africa, the need for a transdisciplinary approach to intervention is indicated. This play package was constructed in such a way that any team member and even non-professionals who are available in communities, can apply it successfully.

In the United States of America federal law creates a framework for programmatic decisions about developmental delay (Shonkoff & Meisels, 2000), which is just as applicable to conditions in South Africa. Diagnosis and treatment are required to cover five areas of performance, namely cognitive, physical, language and speech (communication), self-help, and psychosocial development. Intervention (measurement and treatment) programmes should thus cover the sensorimotor, cognitive, communication and social-emotional domains of development.

The play package for the facilitation of communication-related skills was developed and evaluated in previous research (Uys, 1997). However, the validity of the play package had to be determined and in this case the "validity of correspondence" (Brinberg & Kidder, 1982:12) in domains, namely the conceptual, the methodological and the substantive domains.

During the pre-study phase the research activities involved the selection of relevant concepts, and the determination of patterns among these concepts. Correspondence

between the selected, relevant concepts led to the development of a model for the development of adaptive communication behaviour and the identification of constructs and their corresponding observable behavioural indicators. This process served as a precondition for the development and use of specific measurement and treatment tools.

Strategies or methods for observing behaviours, for manipulating and controlling research conditions, were carried out in the methodological domain. Based on information derived from the conceptual framework a specific measurement tool, the Daily Multiple Measurement Instrument (DMMI), was developed and the play package activities refined.

The data according to which, through analysis and interpretation, correspondence could be determined between the intervention and the outcomes involved the substantive domain. Because of the cyclical nature of research a further step was taken in that the conceptual elements and relations were brought to bear on the data in order to explain and interpret them. Correspondence between the findings and the preconceived theory is an important aspect of external validity (Brinberg & Kidder, 1982).

It is only after this exposition on the research problem, the rationale for the research and the description of the concept of validity that the research question can be formulated. As this research aims at the validation of the play package, which includes the measurement instrument (DMMI) and the treatment activities, the following research question is put:

Does the DMMI measure the communication-related behaviours that it claims to measure and does the package of treatment activities facilitate the development of the communication-related behaviours that it claims to facilitate?

1.2   TERMINOLOGY

VALIDATION

Validation is the process by which something is ratified or confirmed. Validity is defined in many different ways. According to Leedy (1993) validity determines whether a type of measurement actually measures what it is presumed to measure. Validity also determines the effectiveness of procedures.

According to Brinberg and Kidder (1982:12) "validity and validity-like terms share several underlying meanings", one being the validity of correspondence "whether they be two sets of constructs, a set of concepts and a set of observations, two sets of measures". An important central idea of validity is dependability – that which is really true. This view refers to validity as value.

In the conceptual domain validity refers to the search for concepts and relations worthy of study. In the process of conceptualisation connotations should be unambiguous and clearly delineated and denotations should be accurate indicators of the connotations. Theoretical validity is based upon clarity, scope and systematisation. (Mouton & Marais, 1985). Methodological validity depends upon methods and procedures that are valuable for research purposes, while substantive validity explores events and observations that are real, true and important.

The different types of validity are explained in Chapter 4.

PLAY PACKAGE

A play package can be defined as "a specifically selected, coherent set of play activities, aiming at pleasurable and successful learning and training of skills (Uys, 1997). In this case the play package aims at the development of skills related to communication, namely sensorimotor, cognitive, social-emotional and communication skills.

1.3   ORGANISATION OF THE DISSERTATION

CHAPTER 1

In this chapter some introductory remarks on the needs of the disabled and previous attempts by the health and rehabilitation professions to address these needs, are presented. It is against this background that the problem and the rationale for this research are stated. The researcher's orientation is described in relation to a number of assumptions and guidelines for research and service delivery. The research question was then formulated.

Definitions of the salient terms, as well as an outline of the organisation of the dissertation are included.

CHAPTER 2

This chapter deals with the concept of the adaptive response. Theories on adaptation, as well as on communication development underpin the model for the development of communication-related behaviours as adaptive responses is put forward. The sensorimotor, cognitive, communication and social-emotional domains are identified and the integration between them is described. Through a process of operationalisation of the relevant constructs, observable behavioural indicators are identified and applied to the developmental needs of the intellectually impaired child. This chapter serves as the conceptual orientation for the empirical research.

CHAPTER 3

Play, as a tool for the facilitation and measurement of communication-related behaviours, constitutes the theme of this chapter. Based on the theoretical orientation that the communication-related behaviours are adaptive responses, play is regarded as a vehicle for the development of these behavioural responses. The use of play as an intervention tool and the need for the development, refinement and validation of a play package is discussed.

CHAPTER 4

The methodology implemented in the empirical research is described and defended in this chapter. As the research involves different phases, the aims and designs are presented for the pre-experimental and experimental phases. Procedures for the refinement and face validation are described, including the prior testing of the research methods in a pilot study. The description of the experimental phase includes the aims, the participants, material and equipment, as well as the data collection, recording and analysis procedures. The information is provided in such a way that the study may be replicated.

CHAPTER 5

The results are presented in this chapter, together with a description, discussion and interpretation. As validation of the play package involved much more than the results of the experimental phase alone, a logical structuring of the chapter necessitated the presentation of results according to the validation process, rather than according to the sub-aims of the experimental phase alone. As reliability is a prerequisite for validation, intra- and inter-rater reliability findings are presented first. Validation of the play package according to the outcomes of the group and the individual participants on the different measurement instruments is then addressed, based on the findings during the different phases of the research. Specific attention is paid to construct and convergent validity, followed by conclusions about the validation of the play package.

CHAPTER 6

The conclusions are presented in terms of findings about all the different types of validity. This is followed by a discussion of the implications of the findings for further research and service delivery.

APPENDICES

The appendices supply important information for the understanding of the data collection and analysis procedures, and thus the replication of the research.

1.4   SUMMARY

This chapter deals with the needs of the disabled and the need for further research in the field of validation of intervention programmes in order to improve service delivery. Based on these conditions and requirements a problem statement and rationale for the research is formulated. The researcher's orientation is discussed in terms of accepted assumptions and guidelines from the literature, from which follows the formulation of the research question. Definitions of the salient terms and, finally, an outline of the chapters in the dissertation are presented.