6 CONCLUSION

The aim of the chapter is to reflect on the research, critically evaluating each of the three phases of the research as well as the resulting tool, drawing conclusions and highlighting the clinical and theoretical implications of this study. Recommendations are made for future research as well as clinical practice. The chapter concludes with final comments from the researcher.

6.1 INTRODUCTION

The role of the speech-language therapist is always expanding and developing. New directions of expertise appear constantly, reflecting continued attempts at meeting the needs of individuals with communication disorders. The dawning of the technological era and an increase in awareness regarding aspects such as the rights of children with severe disabilities brought about the use of augmentative communication with these children and, amongst other contributions, the development of assistive devices such as voice output communication devices (Beukelman & Miranda, 1998).

Another development which led to the expansion of the role of the speech-language therapist is the development of the cochlear implant and the recognition of the importance of inclusion for children with profound hearing losses (Cochlear 2002a; Ertmer & Mellon, 2001). The role of the speech-language therapist was also challenged and expanded with the emergence of ECI (Rossetti, 1996). Knowledge on early communication development and the effectiveness of early intervention resulted in the widespread acceptance of the need for families with children less than three years old, who are at risk for communication disorders, to receive early intervention (Rossetti, 1996).

An awareness of the basic right to receive appropriate treatment has once again impacted on the role of the speech-language therapist (HPCSA: The Professional Board for Speech-Language and Hearing Professions, 2002b). Knowledge of the reciprocal relationship between communication development and culture, as well as

an awareness that external ideals and values which have originated in one culture may not be enforced upon members of another culture, have resulted in a need to provide culturally sensitive and family-centred services (Louw & Avenant, 2002; Madding, 2000).

As stated in the definition of cultural sensitivity (see 1.9), this implies that every community, including those communities which are more affluent, developed and primarily Caucasian, deserves to be approached with sensitivity and respect. It has been clear from the outset that this research has targeted a developed, affluent community but the Socio-economic status of a community does not mean that their values and beliefs are not important.

Speech-language therapists must determine and attempt to meet the needs of all communities as each community has the right to access services, to have their autonomy, dignity and integrity respected as well as their cultural values and beliefs protected (HPCSA: The Professional Board for Speech-Language and Hearing Professions, 2002b). Consequently, it remains important for speech-language therapists to acknowledge the needs of all communities regardless of internal dynamics.

In a multi-cultural, environment such as South Africa, the aim of being culturally sensitive and family-centred requires that speech-language therapists become involved in local communities, determining the individual needs of families within communities. Though financial constraints make the provision of one-on-one therapy impractical, the empowerment of communities to put self-sustaining initiatives in place is a worthwhile, financially viable aim (Mc Conkey, 2002b).

One example of a successful community project, which has left behind sustainable changes, is the empowerment of parents with children who have severe disabilities to form their own support networks in Bushbuckridge (Mc Conkey, 1996). Parents involved in initiatives such as these need no longer feel isolated and dependant upon professionals from outside of the community. Parents are empowered to meet their own needs with professionals fulfilling a consultative role.

For the inadequate number of speech-language therapists in South Africa to meet the growing demand for services within the country (Pickering, *et al.*, 1998; Fair & Louw, 1999) there needs to be a move towards the provision of consultative and transdisciplinary services (Moodley, 1999). Many speech-language therapists are also from cultural backgrounds which differ from the communities they serve (Moodley, 1999). In order for these professionals to comply with trends to be culturally sensitive, community involvement and empowerment needs to play a central role in service provision. If the needs of individual communities are brought to the fore and professionals are taught to consult, empower and bring about sustainable community initiatives, then the provision of culturally sensitive, family-centred services will automatically occur.

A greater emphasis has recently been placed on the role of speech-language therapists in the provision of family-centred services. In order for parents to fulfil their roles as central decision-makers, they need to receive adequate training. Other professionals who participate in transdisciplinary service provision within communities also need to receive training from speech-language therapists in order to fulfil this task (Moodley *et al.*, 2000). Although other professionals may realise the importance of communication development, they will not have received the same training as the speech-language therapist, resulting in a need for interdisciplinary training programmes (Moodley, 1999).

This implies that speech-language therapists are required to provide adult education, including imparting knowledge as well as skill training (Hugo, 2003; Kaufman, 2003, Hay & Katsikitus, 2001; Reid *et al.*, 2003). Speech-language therapists need also be "brokers of information" (Rossetti, 2001), no longer guarding their specialised knowledge and skills (Uys & Hugo, 1997).

Speech-language therapists should to be involved in training parents as well as other professionals (Billeaud, 1998). The provision of training to other professionals on the transdisciplinary team, such as community nurses, is also in line with the White Paper on Integrated National Disability (1997) which highlights the need for the provision of further training programmes for health care workers (Moodley, 1999).

The important role of speech-language therapists in prevention programmes is also highlighted within the White Paper on Integrated National Disability (1997). Although professionals have repeatedly been called to fulfil this important role, many clinicians are still primarily involved in tertiary, and to a lesser degree, secondary prevention (ASHA, 1991; Gerber, 1998). Although primary prevention is not always possible, primary prevention strategies are certainly not being implemented to their full capacity.

Many disorders, such as learning disabilities, which are still very prevalent in South Africa, could largely have been prevented (Molteno & Lachman, 1996; Christianson, Zwane, Manga, Rosen, Venter & Kromberg, 2000). This may be due to a lack of knowledge and skill on the importance of primary prevention but may also be as a result of a lack of legislation supporting, and therefore providing funding for, prevention initiatives.

Research can play an important role in the prevention of communication disorders in South African communities as it can be used to identify the needs of particular communities (Leedy & Ormrod, 2001) resulting in justification for and the initiation of culturally sensitive, family-centred prevention measures.

This chapter aims to determine the success of this research in determining the needs of an individual community and developing a tool for the prevention of communication disorders for that community. Figure 6.1 provides an outline of this chapter.

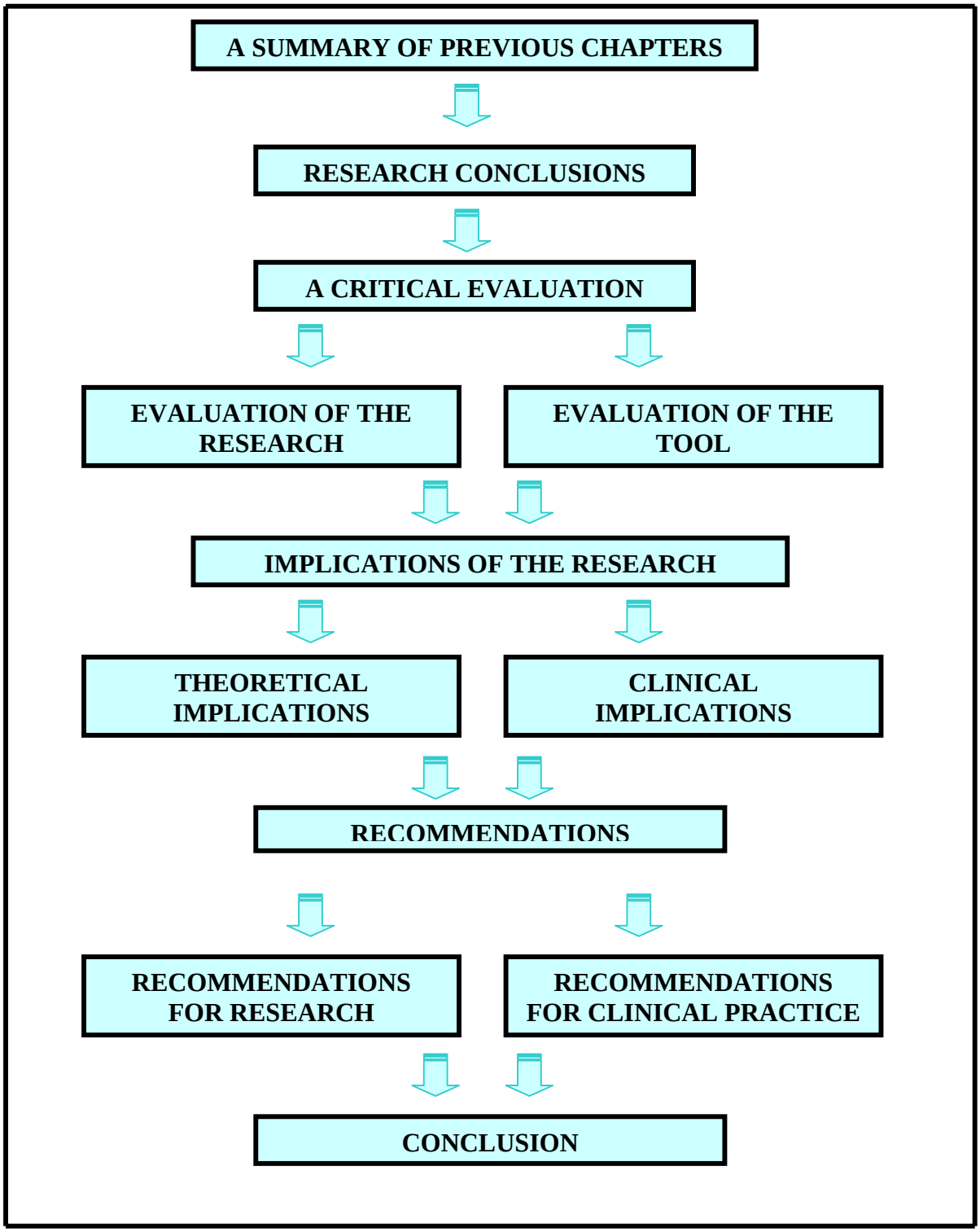

Figure 6.1 A schematic presentation of the chapter

6.2 A SUMMARY OF THE PREVIOUS CHAPTERS

Chapter one provided the rationale for a study by discussing the need for effective, community-specific prevention initiatives. The discussion emphasised the need for culturally sensitive and family-centred services in South Africa.

Chapter two discussed relevant literature on infant communication development, described different perspectives and emphasised important areas of communication development and factors that influence it. Factors that are of particular relevance to communication development in the South African context were highlighted and suggestions were made for the facilitation of optimal communication development.

Chapter three provided a literature review on the prevention of communication disorders in infants. International trends in the prevention of communication disorders and the identification of factors which may influence the risk for and resilience against developing communication disorders were related to the South African context, and the value of education as a primary prevention strategy was highlighted.

Chapter four provided a detailed description of the methodology that was used to plan and execute the research. This chapter provided information on the aims, design, participants, materials and apparatus as well as the procedures for data collection and analysis.

Chapter five displayed, described and interpreted the results of the study. The results of Phase One reflected conclusions which were drawn from comparing the results of the survey with information gathered in focus group discussions. The results of Phase Two reflected the process of refining the information that was gathered in Phase One in order to produce the tool. The results of Phase Three reflected whether the tool that was developed in Phase Two was successful in meeting the needs of the community. The results presented and discussed in chapter five led to certain conclusions being drawn from the research.

6.3 CONCLUSIONS FROM THE RESEARCH

Certain conclusions can be drawn from the results of the research, namely:

The needs analysis which was completed in Phase One revealed that parents and professionals were in agreement regarding the need for a tool on the stimulation of communication skills in infants. As could be expected, in a developed, upper-middle class area, parents from the community not only felt there was a need but also wanted a video tool to be developed and made available, regardless of whether it had to be purchased or not.

This concurred with previous research findings and current trends which reflect that parents prefer video tools on communication development (Banigan, 1998; Hadadian & Merbler, 1995; The Hanen Program, 2001). The tool that was developed in Phase Two of this study was therefore to be in a video format, reflecting the needs of the participants and current trends.

The *content* of the stimulation tool also reflects the needs and preferences of the community. The analysis of the survey and focus group discussions that were conducted as part of Phase One highlighted a list of topics to be considered for inclusion in the tool. However, the researcher not only took into account the needs of the participants, as expressed in the survey and focus group discussions, but careful consideration was also given to trends in the literature and other tools (Rossetti, 2001; Owens, 2001; Klein & Gilkerson, 2000; The Hanen Program, 2001; Mc Conkey, 1996a; Mc Conkey; 1996b; Johnson & Heinze, 1990; Parks, 1998; Manolson, 1992; Kumin, 1994).

Further focus group discussions in Phase Two were used to refine the list of topics and to determine the final content and format of the tool. Repeated meetings with a group of parents from the community resulted in animated discussions, a relaxed atmosphere and earnest contributions by all focus group discussion members. The researcher was, therefore, able to determine the community sentiment. All the decisions regarding the development of the tool reflect trends in adult education towards involving adults in the decision making process regarding not only the

presentation of materials but also on the information to be included in such material (Carlson, 1997; Carey, 1994). During these discussions decisions which were based on group consensus were made regarding the topics which should be addressed in the tool and the way in which information should be presented.

Focus groups that were held during phase three indicated that parents from the community were satisfied with the video tool which was developed. The participants evaluated the tool as practical and empowering as well as applicable to mothers and fathers. The main aim of the research appears, therefore, to have been achieved.

6.4 A CRITICAL EVALUATION OF THE STUDY

The following section provides a critical reflection on the strengths and limitations of the research and the resulting tool.

6.4.1 Critical Evaluation of the Research

The implications of the results which have been summarised and concluded upon above only come to light when one considers the strengths and weaknesses of this research. It is important to acknowledge and discuss the positive aspects as well as the limitations which are inherent to this study in order to justify conclusions and gain perspective regarding the implications of the results (Denzin & Lincoln, 2000). This discussion is divided according to the three phases that were executed in the study, namely: the needs analysis, the compilation of the stimulation tool and the tool validation.

.1 Critical evaluation of Phase One: needs analysis

The strengths and limitations of Phase One are schematically presented in Figure 6.2.

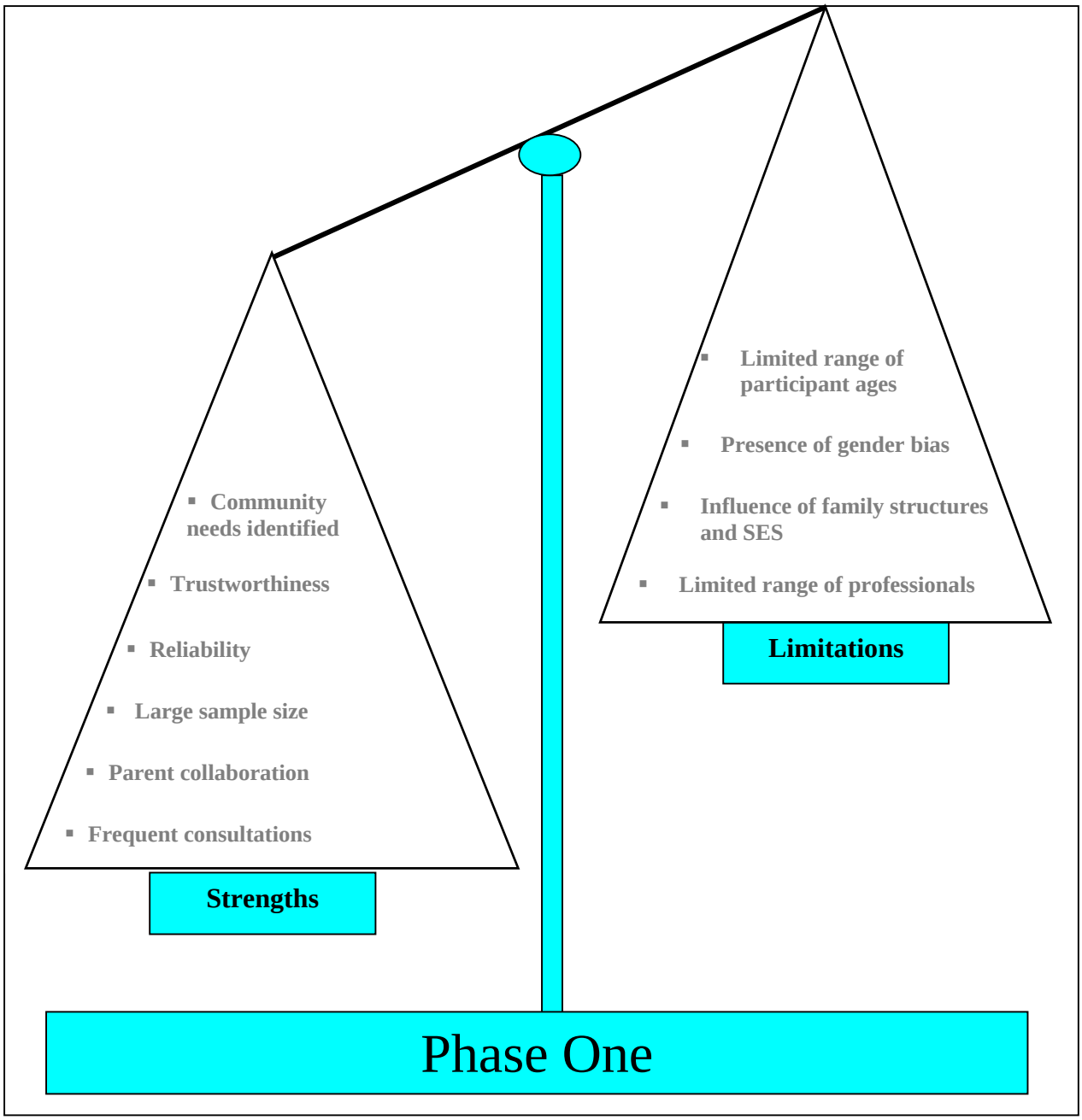

Figure 6.2: Strengths and limitations of Phase One

As displayed in Figure 6.2, the following strengths and limitations are acknowledged in Phase One:

Community needs have been identified: An important strength of this study is that through the extensive survey conducted during Phase One, it provided information on the needs of a specific community. Determining the needs of individual communities is an important foundation for the provision of culturally sensitive services

(Lowenthal, 1996; Battle, 1998; Bennett *et al.,* 1998; Hansen, 1999). No previous, published results on the needs of this specific community regarding the desire for a tool on the stimulation of communication skills in infants could be located, making the results of this study important for professionals working in the designated geographical area. These results are not only relevant to speech-language therapists., as the study targeted professionals from various career backgrounds, making the results of this study important to a range of professionals. Furthermore, the results of Phase One not only highlight the need for a tool on the stimulation of communication skills in infants but also the way in which this specific community prefers new or important information to be presented and made available. As the principles of adult learning were applied in the use of group discussions (Kerka, 1995; Kaufman, 2003), the results of Phase One could provide valuable insights for all professionals who wish to be involved in future adult education initiatives or in the development of tools for families from this area.

The trustworthiness of the data: One of the strengths inherent to Phase One lies in the researcher's use of different methods to gather information. The use of triangulation increases the validity, trustworthiness and richness of the data (Leedy & Ormrod, 2001; Berg, 1998; Miles & Huberman, 1994). The use of a survey (Leedy & Ormrod, 2001) was combined with focus group discussions (Bloor *et al.,* 2001) during Phase One in order to obtain a *richer, more diverse collection of data*. Through the combination of research methods the effects of bias from the individual methods was limited. The findings of the survey were compared with the focus group results, therefore *increasing the depth of the findings* (Carey, 1994; Miles & Huberman, 1994).

The reliability of the data: The reliability of the results was increased by giving careful consideration to following the same procedure with each participant in the survey as well as with each focus group discussion (Leedy & Ormrod, 2001; Bloor *et al.,* 2001) in order to ensure that that the same results will be obtained under comparable conditions (Leedy & Ormrod, 2001). The strict adherence to procedures consequently contributed to *valid and reliable research results* in Phase One.

The number of participants: A further strength of this study, which contributed to the validity and reliability of the results, is the number of participants. 184 parent participants and 83 professionals participated in Phase One of the study. This sample size is large enough to represent the community which contributes to the validity and reliability of the results of Phase One (Leedy & Ormrod, 2001). This means that the community needs and preferences which were identified are likely to be a true reflection. Professionals are, however, cautioned against making over generalisations and creating false stereotypes regarding members of communities (Roberts *et al.*, 1998). Although research has an important role to play in identifying trends within communities (Leedy & Ormrod, 2001), professionals need to be aware of the importance of involving individual families in the decision-making process.

A limited range of participant ages: One of the limitations of this study lies in the limited age-ranges of parent participants. People of different ages are also in different life phases, reflecting distinct activities and needs within each life phase (Louw *et al.*, 1998). As described in 4.6.2 the majority of the parent participants were in their late twenties and early thirties, with the oldest being exactly forty years old. Although age was not a criteria for inclusion and the same trends are not seen in ages of the professional participants, the results of this study do not reflect the needs and preferences of older parents within the community and the validity of the results for older parents should be questioned. As age also affects people's ideals and goals (Louw *et al.*, 1998) one could expect that an older group of parents would have expressed different opinions and desires. This limitation could have been reduced or avoided by altering the criteria and procedures for selection by specifically recruiting older parents in the community through advertising. Researchers could recruit specific participants for a study but this would have other implications on the research results as the participants would no longer be randomly selected (Leedy & Ormrod, 2001).

The presence of gender bias: Another limitation of this study is the disproportionate number of female participants. Previous research has reflected on the fact that it is frequently difficult to involve fathers (Mc Conkey *et al.*, 2000). As described in 4.6.2 of this study almost two thirds of the parent participants and all of the professional participants were female.

The validity of the results for males is consequently questioned. Although the results of Phase Three did reflect that participants judged the tool to be valid for both mothers and fathers this judgement was made by female focus group participants. One could argue that these participants were also wives, and could be relied upon to know the needs and preferences of their husbands but this remains a theory. The fact that there was a large group of parent participants and 36,5% of them were fathers means that the research results do reflect the needs and preferences of fathers but that the needs and preferences of mothers are reflected more strongly. Although the roles of parents are changing, with more mothers returning back to work (Klass, 1999) mothers are still the primary caregivers and nurturers (McBride *et al.,* 2001). Although there have been measurable increases in the involvement of fathers in hands-on parenting tasks during the past few decades, these increases are modest and fathers continue to spend substantially less time than mothers in parenting activities (McBride *et al.,* 2001). Despite the fact that the tool may be more applicable to mothers than fathers it can be argued that more mothers are likely to use such a tool. Once again this limitation could have been prevented by specifically recruiting male participants, but as was the case with recruiting older parent participants, this would result in other implications for the data (Leedy & Ormrod, 2001).

Similarly, the recruitment of male professional participants would also have had further implications on the data. It can be argued however that all professionals, who qualified according to the selection criteria, were requested to participate in the survey and the results are, consequently, a true reflection of the opinions of professionals who serve the community. It was not possible to include male professionals as there were none available. Furthermore, other professionals (as described in 5.3.2) were involved in further consultations during Phase Two which resulted in the inclusion of male professional participants in the research process.

The influence of family structures and socio-economic status (SES): The parent participants that were included in Phase One were mostly from nuclear families with both biological parents present in the home. Furthermore, most families were in the upper-middle income group. Although this may well have been representative of the targeted community it is not representative of what is currently typical in most families and societies. Most communities have high divorce rates (Lester, 1996) and

many South Africans live in poverty (Ebersöhn & Eloff, 2002). A low socio-economic status places children at-risk for communication disorders (Klass, 1999; Rossetti, 2001) and could be expected to affect decisions such as the format of the tool desired by parents. This has certain implications for the generalisation of the results of this study, making inferences to other communities unreliable. The fact that the community that was targeted in this study was clearly different to many other communities in South Africa highlights the fact that communities are unique and it is therefore imperative that professionals gain knowledge and understanding of the specific communities they serve (Battle, 1998; Bennett *et al.*, 1998).

Collaboration and consultation: The need for speech-language therapists to collaborate with other professionals in order to meet the growing demand for services within different communities has previously been highlighted (Moodley *et al.*, 2000). The shortage of speech-language therapists decrees that other professionals need to be made part of transdisciplinary teams (Moodley *et al.*, 2000). A wide range of professionals were involved in this research. The survey targeted professionals qualified as speech-language therapists, occupational therapists, educational psychologists, social workers, nurses or parent-infant workshop leaders. The fact that a range of professionals were included implies that the results of this study are important to various professions, implying a need to publish the results in a variety of journals. Not only is the data on the information to be included in this tool relevant but the findings on parental preferences regarding adult training tools is pertinent to all professionals serving the particular community. However, although it can be argued that a strength of this research is that a range of professional opinions were included it can also be argued that not all of the relevant professionals were targeted.

The opinions of physiotherapists, doctors (specifically gynaecologists and paediatricians) as well as teachers at pre-schools and day-care facilities could also have given valuable insights. The inclusion of these professionals may also have resulted in the inclusion of male professional participants which would have been of great value to the researcher. In the clinical setting a range of professionals are involved in preventative intervention (Guralnick, 1997). However, due to time and financial constraints, this research study targeted the before-mentioned six categories of professionals. Besides those professionals who were involved in the survey other

professionals were also included during further consultations (see 5.3.2), resulting in research results which are reflective of a collaborative team approach towards the prevention of communication disorders.

.2 Critical evaluation of Phase Two: compilation of the stimulation tool

The strengths and limitations of Phase Two are schematically presented in Figure 6.3.

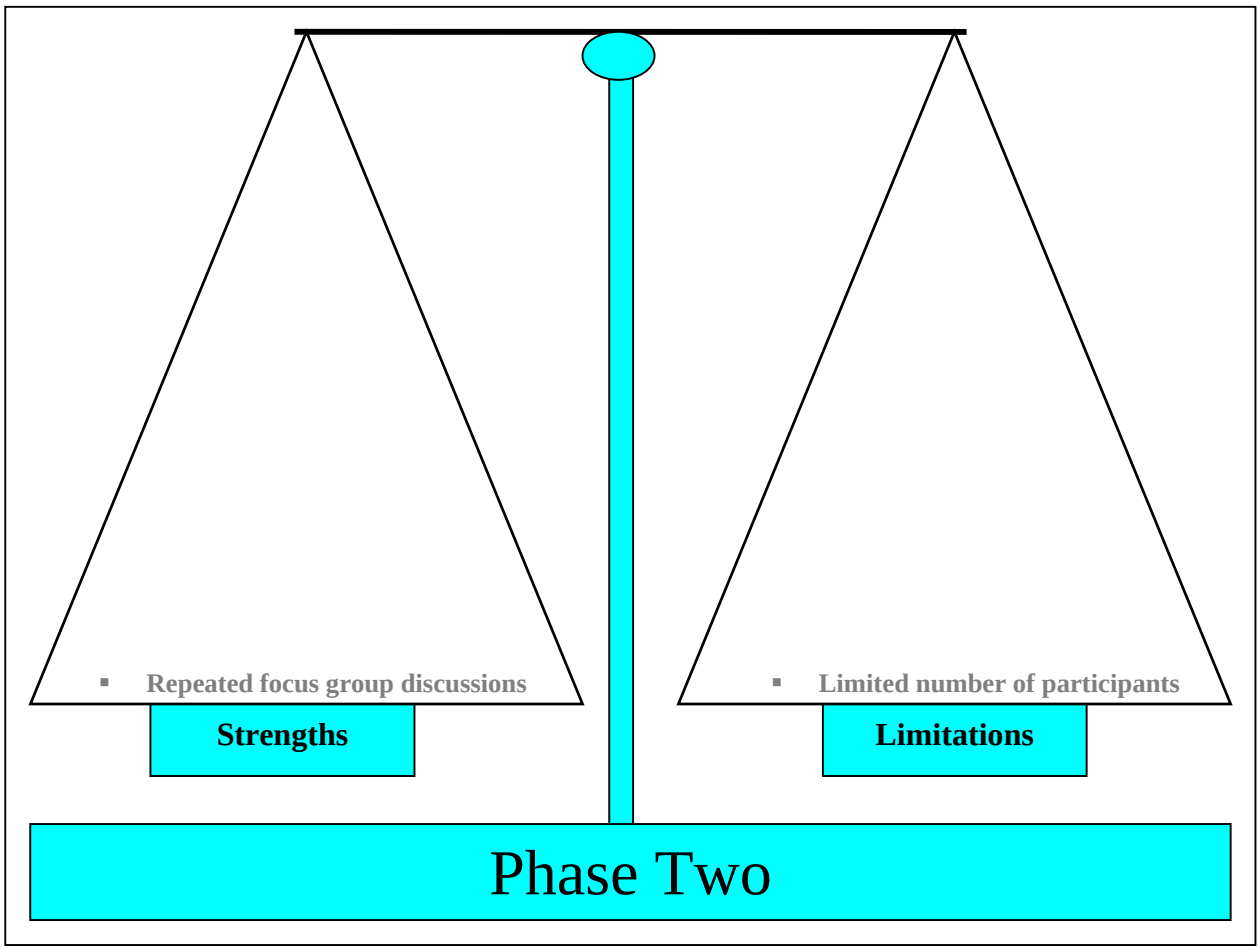

Figure 6.3: Strengths and limitations of Phase Two

As displayed in Figure 6.3, the following strengths and limitations are acknowledged in Phase Two:

The use of repeated focus group discussions: During Phase Two a group of participants were included in a series of focus group discussions. The inclusion of one group in more than one discussion highlights the advantages of focus groups, namely

the interaction between individuals in order to obtain *rich, qualitative data* that reflects needs and preferences as well as the *evolution of new ideas* and obtaining *a consensus amongst participants* whilst *limiting the effects of bias* in the focus group discussions by ensuring ample opportunities for participants to take part (Carey, 1994; Miles & Huberman, 1994). Phase Two therefore provided richer data and the results are more likely to be valid and reliable. The use of interaction amongst adults to reach their own consensus regarding what they perceive as important to learn and how they want it to be taught reflects current trends in adult education towards teachers encouraging participation in decision making, thereby empowering adults in the learning process (Kaufman, 2003). Adult learning is also more effective when the learners decide not only the content but also the presentational format (Carlson, 1997; Carey, 1994).

The inclusion of a limited number of participants: In spite of the above-mentioned advantages of including one group of participants in a series of discussions this also implies that Phase Two included only a limited number of participants. The results of phase two reflect the opinions, needs and preferences of only one group of seven participants. This was done on the recommendations of Professor Roy Mc Conkey from the University of Ulster, Northern Ireland, who has experience in developing video training tools for parents in African communities (see 5.3.2). A limited number of participants were included in Phase Two in order to benefit from the before-mentioned advantages of including one group in a series of discussions. In particular the researcher needed to use one group of participants so that a consensus could be reached regarding certain critical decisions surrounding the content and development criteria of the tool. The use of one group would allow participants to explore individual opinions and ideas while reaching a group consensus which is ideal for the development of a tool (Miles & Huberman, 1994; Carey, 1994). It is, however, important to bear in mind that the decisions that were made in Phase Two were aimed at highlighting important issues from the results of Phase One. The relatively small number of participants in Phase Two should consequently be seen in the light of the fact that a very large group of participants were already involved in the process of identifying the needs of the community. The participants in Phase two represent a task force or committee of individuals from the specific community who have been incorporated in the decision making process making the resulting tool appropriate to

the targeted consumer (Dunst *et al.*, 1991). This also reflects trends of being more family-centred during service provision by empowering parents (Zhang & Bennett, 2001).

.3 Critical evaluation of Phase Three: tool validation

The strengths and limitations of Phase Three are schematically presented in Figure 6.4.

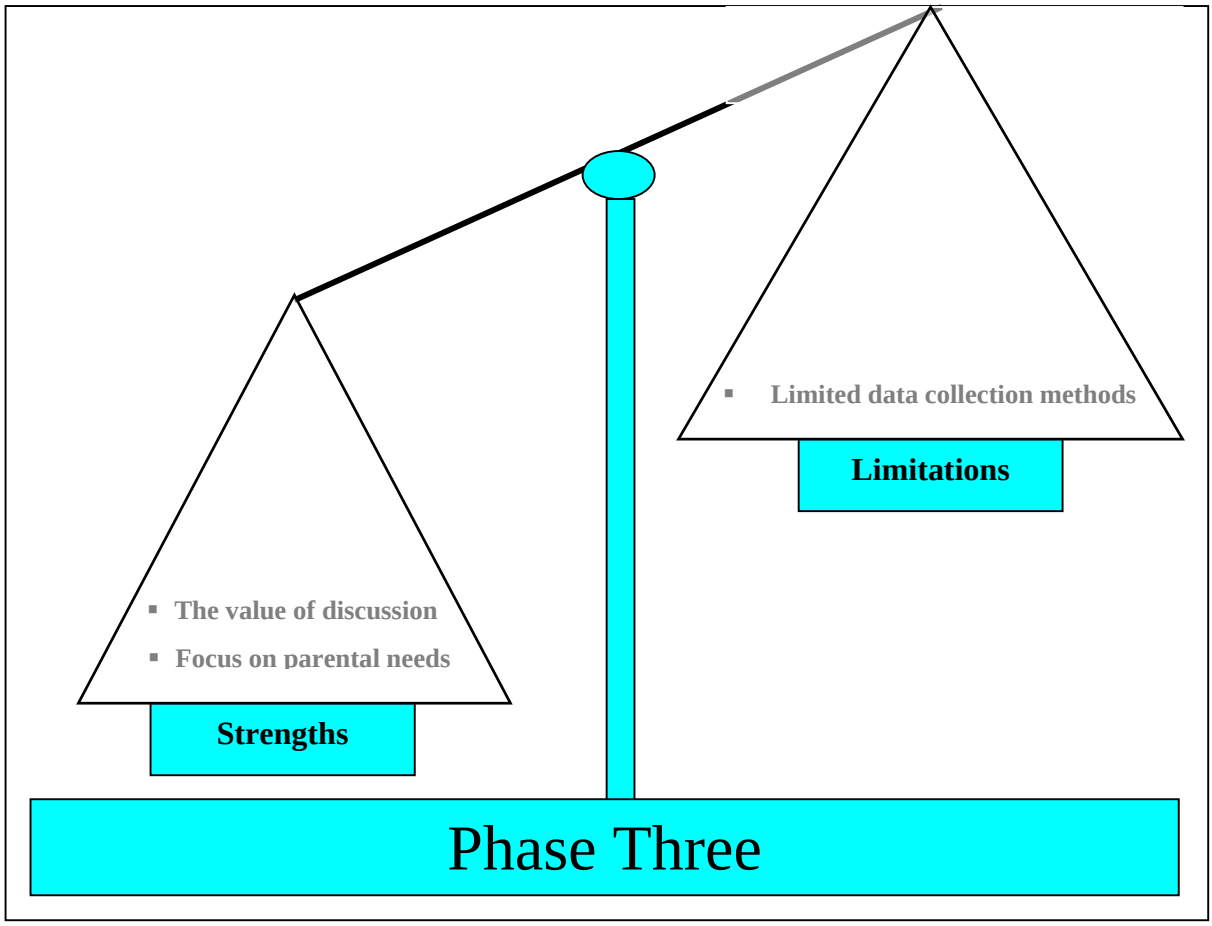

Figure 6.4: Strengths and limitations of Phase Three

As displayed in Figure 6.4, the results of Phase Three are considered in light of the following strengths and limitations:

The value of discussion: Parents who are involved in discussions on parenting issues not only gain knowledge and skills but also benefit from the opportunity to network with other parents (Scott, Brady & Glynn, 2001). Involvement in discussions such as

those held during Phase Three provides parents with an important means of establishing social support during the transition to parenthood (Scott *et al.*, 2001). As the presence of social support influences a family's resilience to risks (Werner, 2000; Gilligan, 2001; Osofsky & Thompson, 2000) involvement in such discussions may be a useful primary prevention strategy (Scott *et al.*, 2001).

Focusing on parent participants: It could be implied that a limitation of Phase Three is the exclusion of professional participants from the validation process. However, a current focus in speech-language therapy is on the provision of family-centred services (Scheffner Hammer, 1998). This implies that parents are central figures, who need to be encouraged to determine the appropriate course of action (Zhang & Bennet, 2001; Madding, 2000). The participation of parents was, therefore, crucial to achieving the aims of the study, namely to determine whether the tool fulfilled the needs of parents in terms of informational content and format. The participants validating the tool therefore reflect the consumers for whom the tool was developed (Dunst *et al.*, 1991).

The use of limited data collection methods: In contrast to the combination of a survey with the use of focus group discussions in Phase One, only focus group discussions were used in Phase Three. This implies that results from Phase Three do not reflect the advantages of comparing survey and focus group results (Carey, 1994). As mentioned previously the use of different groups of participants in the focus group discussions did however allow for comparisons to be made in the analysis and discussion of the results (Bloor *et al.*, 2001). Although there may have been some advantages to including a survey in Phase Three it would have meant supplying each survey participant with a tool which would have affected the time and costs involved in executing Phase Three. The researcher felt satisfied that the objective of phase three was achieved through the use of focus group discussions.

This discussion has highlighted various strengths and some limitations regarding the decisions that were made and the procedures which have been followed in each of the three research phases. This research aimed, however, to develop a tool for parents and a critical evaluation of the study consequently necessitates a critical evaluation of the resulting tool.

6.4.2 Critical Evaluation of the Tool

As a result of determining the needs of the community during Phase One and involving groups of parents in repeated focus group discussions during Phase Two, a tool was developed, namely the video 'Peek-a-boo: I'm talking to you'. This tool can now be used in adult education initiatives in the community. The value of applied research, namely in meeting the real needs within communities, is therefore demonstrated (de Vos, 1998). In order to determine the success of the tool in applying the principles of adult learning the tool will be evaluated in the same way that The Hanen Program (2001) was evaluated in Chapter Three. The means by which principles of adult learning are met in the video '*Peek-a-boo: I'm talking to you'* are evaluated in Table 6.1.

Table 6.1 The application of adult-learning principles in Peek-a-boo

Principle	Description
Is needs-directed (Parson, 2001; Kaufman, 2003).	The tool is based on a needs analysis which was completed during Phase One as well as the needs which were expressed in the focus group discussions of Phase Two. Furthermore the tool is judged favourably by members of the community during Phase Three. It would therefore appear that the tool adequately reflects the needs of the community. As discussed previously the tool does not adequately reflect the needs of fathers. Although mothers are the primary caregivers, there has been a shift in societal expectations regarding the active role of fathers in raising young children (McBride *et al.*, 2001). Parental tools need, therefore, to actively aim at reaching and involving fathers. Peek-a-boo does not fulfil this need.
Is problem-based (Kaufman, 2003; Hay & Katsikitus, 2001).	A need which was identified during Phase One and highlighted again during Phase Two was the issue of facilitating communication development. One entire section of the video is dedicated to addressing this problem. Furthermore, the principle of adult learning which emphasises the involvement of adults in problem solving (Hay & Katsikitus, 2001) was applied in Phase Two where participants were given the opportunity to indicate how they, themselves, would address this topic.

Table 6.1 Continued

Principle	Description
Includes outlines of goals (Reid *et al.*, 2003).	The video is divided into sections or topics. At the start of each section an outline is given as to the issues that will be discussed. These goals are listed by the narrator as well as portrayed in writing on the screen.
Provides basic knowledge (Kaufman, 2003).	The content on each section is factual and provides parents with clear guidelines which can be followed. The specific topics which are addressed are, however, indicative of the needs of the community rather than a reflection of all the topics which are pertinent to communication development. Principles of adult learning advocate, however, that adults determine the information they are taught (Kaufman, 2003).
Includes real-life situations (Kaufman, 2003).	The video includes a lot of footage of real parents in real-life situations. Furthermore, only parents from the community for whom the tool was developed were used in the tool. This ensures that the footage is culturally appropriate and that parents can identify with situations portrayed in the video.
Includes demonstrations (Kaufman, 2003).	The principles which are discussed in the tool are not only discussed in theory but also demonstrated with real-life footage. This is especially important to the section on stimulation techniques as this knowledge should not remain theoretical but needs to result in the development of skills.
Reflects back (Kaufman, 2003).	At the end of each section the programme once again highlights important information which was provided, reinforcing the message through the use of auditory and visual repetition.

From Table 6.1 it is clear that most of the principles of adult learning are adhered to in the tool which was developed during this research. This increases the probability that the tool could successfully be used in adult education and, therefore, that the objective of developing a tool for parents which is practical and empowering is achieved.

Although there appear to be some limitations regarding the generalisation of the results of the research to other communities, to fathers and to older parents, there are also definite strengths implicit to the research, resulting in valuable contributions to the knowledge of all professionals concerning the needs of specific communities and the prevention of communication disorders.

6.5 IMPLICATIONS OF THE RESEARCH

Whilst acknowledging the limitations of the exploratory nature of the study (Moodley *et al.*, 2000) certain implications of the research can be highlighted. The theoretical and clinical implications of this research are schematically presented in Figure 6.5.

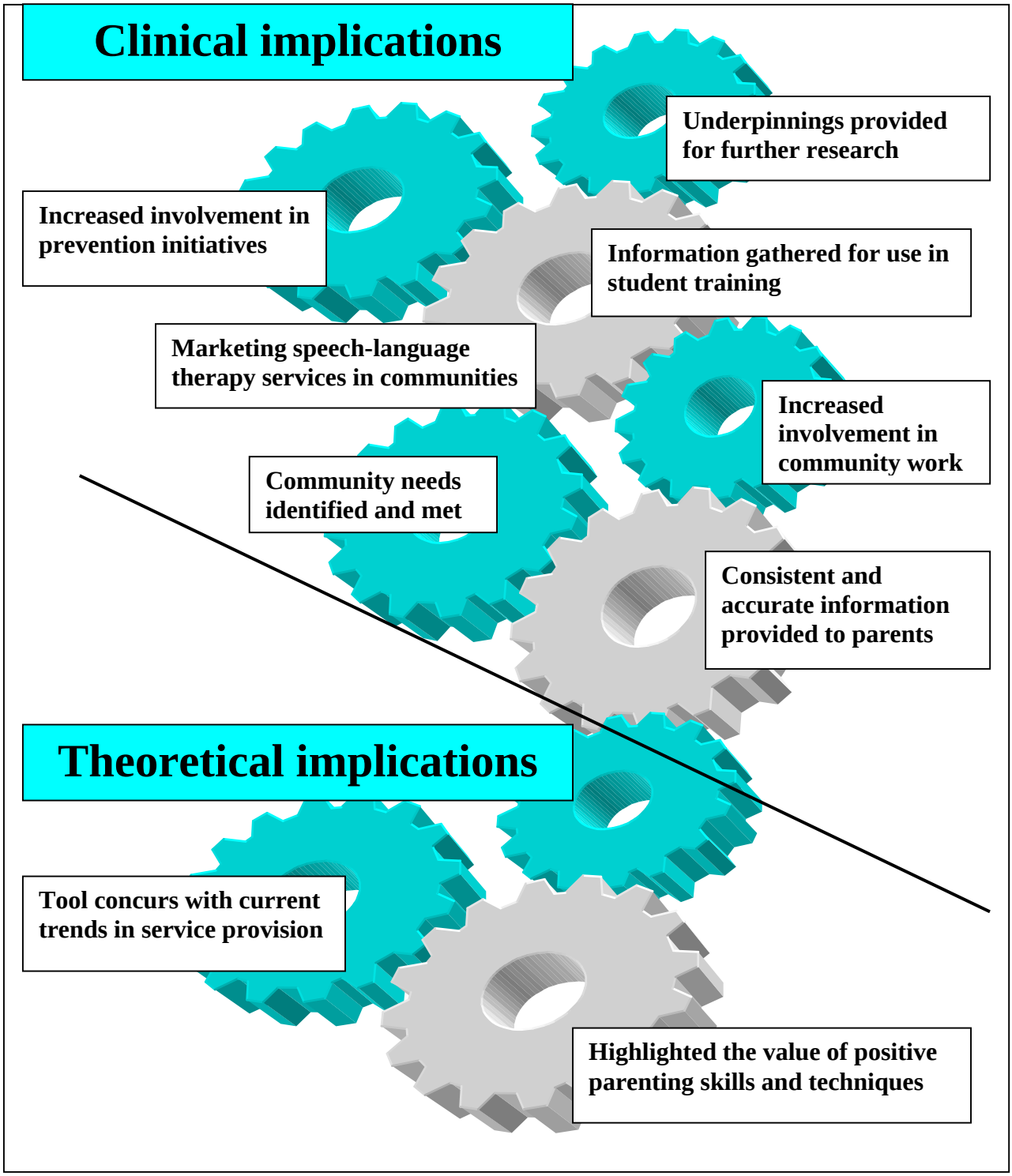

Figure 6.5 Implications of the research

6.5.1 Theoretical Implication

A critical review of this research has indicated that the ***developed tool concurs with current trends in service provision***, such as aiming to be culturally sensitive and family-centred. This research can, therefore, serve as a practical example of in the development of student training curriculum on these topics. Furthermore, research findings supporting the use of certain approaches can be used in the motivation of specific services in position statements and, eventually, legislation mandating such services. Legislation is, however, grounded in evidence-based research (Clark, Gibb, Hart & Davidson, 2002). There is, therefore, a need to determine the effectiveness of programmes before they can be used to motivate services (Green *et al.*, 1996).

This research has highlighted the ***value of positive parenting skills and techniques***. Current trends indicate that divorce rates are increasing, abuse, neglect and abandonment are more common and, consequently, family stability is threatened (Lester, 1996; Ebersöhn & Eloff, 2002). In contrast to these findings this study has emphasised the important role that parents play in infant communication development and the promotion of resilience, thereby focusing on the impact of positive parenting. This is in line with the principles of family support which advocate asset-based family-centred services (Green *et al.*, 1996).

6.5.2 Clinical Implications

This research has highlighted ***the need*** within a community ***for information on the facilitation of communication development in young children***. Parents are important to communication development and all parents, regardless of whether their child has a communication disorder or not, "may benefit from specific training to optimize their natural role as first language teachers" (Kaiser, Hemmeter, Ostrosky, Alpert & Hancock, 1995). In South Africa there are too few speech-language therapists to fulfil all the roles that are required of them (Pickering, *et al.*, 1998; Fair & Louw, 1999) and speech-language therapists therefore have to be resourceful in their time management. The provision of parent training is a creative means of doing prevention as it is a cost and time efficient manner in which to reach many people.

The provision of adult education is one of the most effective forms of prevention (Gerber, 1998). Adult education, including the training of other professionals as well as the training of parents is an important role for speech-language therapists (BIlleaud, 1998). Recently a greater emphasis has been placed upon the role of speech-language therapists in ***prevention initiatives***, *and especially adult education initiatives*. However, resources need to be mobilised to ensure this role is fulfilled. Without adequate legislation mandating, and therefore ensuring funding for such services, professionals are dependent on private funding. This implies that the implementation of prevention and adult education programmes will be limited to those communities who have the financial resources to sponsor such projects. Legislation is, however, grounded in documented evidence of the effectiveness of prevention efforts (WHO, 2002). If the success of prevention and adult education programmes are, therefore, well documented then such programmes could be used to motivate the implementation of supportive legislation.

The specific community in which the programmes are initially implemented does, therefore, not negatively influence the outcome for other communities. The fact that certain communities may have sufficient private funding to initiate prevention and adult education programmes is, in effect, to the advantage of the country as a whole because these communities are funding the pilot studies which could be used to motivate governmental and non-governmental funding for nationwide prevention and adult education efforts. This implies that this research may have positive implications not only for the community which was targeted but for all South African communities.

Another strategy by which the need for adult education as a means of preventing communication disorders within all communities can be met is an increased involvement in ***community work*** (Anderson & Lee-Wilkerson, 1993). Newly qualified speech-language therapists in South Africa are already required to participate in a year of community service upon graduating. These therapists are stationed all over the country, with many servicing developing, previously disadvantaged communities. This presents speech-language therapists with the ideal opportunity to become involved in the development of community specific training

programmes (Anderson & Lee-Wilkerson, 1993). Through the development and implementation of such programmes speech-language therapists themselves will also learn a great deal about the different cultures and communities in South Africa. There is currently a dearth of professional knowledge regarding issues pertaining to communication within different cultures and communities in South Africa (Ligthelm, 2001). Involvement in community service will, therefore, increase the existing professional knowledge base on the diverse communities within South Africa. More community-specific knowledge will present therapists with the opportunity to implement prevention programmes such as the provision of adult training. The results of this study indicated that the community valued the tool which was developed, which highlights the value of community work which leaves behind something which is of continued usefulness to the community after the specific people who implemented it have left (Anderson & Lee-Wilkerson, 1993; Mc Conkey, 2002b).

Besides the value of using such tools for the training of community members, such programmes can also be used to ***market speech-language therapy services*** (Block, 1993; Billeaud, 1998). The use of marketing strategies to advertise a tool will increase public awareness regarding the important role that speech-language therapists play in the community (Block, 1993). Services can be marketed within communities through the use of the media (Thomas, 1993). Using the media can increase public awareness by reaching a wide range of audiences and could also influence public opinion (Thomas, 1993). With increased public support it may also be easier to motivate the allocation of resources. The marketing of speech-language services is, therefore, not about selling a specific product or service but rather about building the image of therapists and fostering parent partnerships (Block, 1993). Effective marketing, however, requires a community-based approach which recognises that communities are unique and that important networks of trust already exist within communities (Anderson & Lee-Wilkerson, 1993).

Community initiatives in which tools are developed in accordance with the principles of adult education (Kaufman, 2003) will provide valuable insights into the needs of specific, unique communities. This study ***identified and met the needs of a specific community.*** This study managed to achieve the aim of developing a tool for parents of a specific South African community for the stimulation of communication skills in

infants that is valid in terms of content and is judged by parents to be practical and empowering. Parents from the community were empowered to make decisions regarding the tool that should be developed. The research was, therefore, family-centred and culturally sensitive (Madding, 2000; Bennett *et al.*, 1998). This implies that the study was of value to the targeted community and the tool that was developed will assist members of the community in facilitating optimal communication development in their infants, thereby preventing many developmental communication disorders.

Although it is positive that the objectives of the study were achieved, the fact remains that the results of this study cannot be generalised to other communities. Culture and language are intertwined with one another (Louw & Avenant, 2002; Bennett *et al.*, 1998; Crago, 1992). South Africa is made up of many diverse cultures and communities and findings relating to one culture or community cannot necessarily be generalised to others (Pickering *et al.*, 1998; Fair & Louw, 1999). Although this study focused on a very specific community and the results cannot be generalised to the population at large, certain inferences and predictions can, however, be made about similar communities (Stein & Cutler, 1996). This study can serve as the ***underpinnings for other research projects*** which aim to make similar tools available to other South African communities. The procedures which can be followed in order to actively involve families from the community in the development of a tool have been demonstrated through this research. This study is, therefore, a pilot study from which other family-centred, culturally sensitive initiatives can be launched, thereby benefiting all young, at-risk children and their families.

Another clinical implication which results from research such as this is that this information, as well as any resulting tool, can be used to ***train students*** in the provision of culturally sensitive and family-centred services as well as indicating the specific needs of the targeted community. Research which aims to meet the needs of specific communities therefore also increases cultural awareness and knowledge within the broader professional community.

Due to the increased awareness of the importance of culturally sensitive and family-centred services there has been a move towards providing more coordinated services

to families (Rossetti, 2001). In the past services have frequently been fragmented but current trends reflect a move towards the development of transdisciplinary teams (Rossetti, 2001; Moodley *et al.*, 2000). There is a need for ***consistent and accurate information*** to be provided to parents (Rossetti, 2001). When all professionals involved in providing information to a family have access to the same information, the information provided to the family is more consistent which is in line with current trends in family-centred practice (Banigan, 1998; Guralnick, 1997). When professionals do not work together to provide consistent information it may cause stress to the family (Guralnick, 1997). The results of this study indicate that professionals from various fields are probably already involved in providing parents in the specific community with information on communication development. The distribution of the developed tool to all these professionals in the community may help to ensure that they provide parents with consistent and accurate information. The information gathered through such research, as well as the resulting adult education materials developed in the research, could also form part of the curriculum in interdisciplinary training initiatives.

6.6 RECOMMENDATIONS FOR FUTURE RESEARCH

Research is an ongoing process which is often cyclical in nature, with the completion of one study resulting in the need for further research (Leedy & Ormrod, 2001; Denzin & Lincoln, 2000). Although this study provided certain answers, this study also gave rise to new questions which have not been answered and in so doing hopes to awaken the need for more research in the field. Besides highlighting the need for further research, applied research also helps to bridge the gap between research and practice, resulting in the implementation of research results in clinical practice (de Vos, 1998).

In order to motivate financial support for the implementation of prevention and adult education programmes, ***studies are needed to demonstrate the effectiveness*** of existing examples of such programmes. There is, consequently, a need for research that will explore the impact of the tool that was developed in this study on the community for whom it was developed. Research which evaluates the applicability and uses of procedures can have important clinical implications (Robin, 1999). An

impact study needs to be conducted in order to highlight the strengths and uses of the tool for the clinical setting but also to suggest changes that could make the tool applicable for a larger range of applications.

Although the development of community specific training tools is an important means of providing adult education within communities and the provision of adult education is an important strategy for the prevention of communication disorders, it is not sufficient to only develop training tools. Research which clearly demonstrates the effectiveness of these programmes in reducing the incidence and prevalence of communication disorders is, therefore, needed in order to promote the wider application of such prevention strategies within other communities. The implementation of successful prevention programmes within different South African communities will lead to an increase in the early identification of communication disorders and the provision of early intervention (Gerber, 1998).

Participants in this research felt that they would have wanted access to such a tool on communication development in infants before or shortly after the birth of their child and suggested the possibility that the tool be included in the hospital package which is given to each new mother on the birth of her infant. This stresses the fact that parents want access to information and that information should be readily available (Billeaud, 1998). There is, therefore a need for research which considers the ***viability and costs of supplying all new mothers with information on infant communication development at birth***. Research is needed in order to determine the cost-effectiveness of such measures. The possibility exists, however, that the parents who participated in this research did not represent parents in general and research is, therefore, needed to determine the needs of parents from other communities.

The results of this study indicate that professionals from a variety of fields are involved in providing parents from a specific community with information on communication development. This finding is supported by the literature (Guralnick, 1997). The scope of this research does not, however, cover the evaluation of the particular information that each of these professionals is providing to parents. There is, therefore, a need for further research which could ***evaluate and compare the***

content and type of information on communication development that these professionals are providing to parents.

In the past services to families have frequently been fragmented (Rossetti, 2001). Information which is provided to parents by different professionals may even be contradictory. Research is, consequently, needed to ***determine the content of formal training about communication development that is provided to each of the professionals*** who make up the informal transdisciplinary team that participates in the education of parents. In order to limit stress in families it is important that there is coherence in the information which is being provided to them (Guralnick, 1997).

Information which is provided to adults should be presented in a format which reflects the needs of the consumer (Kaufman, 2003). Although a video format was the most popular choice of format in both the survey and the focus group discussions, regardless of the cost involved in obtaining the tool, a book was also a popular choice, with almost half of the participants indicating that they would consider this format. Information packages which are applicable for parental use and are commercially available come in a range of formats (Devine, 1991; Owens, 2001; Bailey, 1998; Hugo & Pottas, 1997). Hence there is a need for ***the search for applicable formats to continue*** as there is no reason why information should not be available to parents in more than one format. Research is also needed to determine which formats are the most applicable for parents from different communities. Although projects in other areas of South Africa have also used videos (Mc Conkey, 1996) it is not necessarily the best choice of format for all communities. The results of the first phase of development, namely the needs analysis, would probably reflect different needs and desires in rural, developing communities than in the community targeted in this research.

The participants who are selected in a study influence the ability to generalise the results (Leedy & Ormrod, 2001). As discussed previously, issues relating to the ages, gender and family structures of participants as well as the range of professional participants who were included may have influenced the data and therefore restricted the researcher's ability to generalise the results. ***Further research*** that aims specifically at recruiting participants from all ages, with equal gender proportions and

a more representative distribution of family structures and a wider range of professional participants would serve ***to qualify the results of this study***.

In the validation phase one participant highlighted the need for specific information to be included in the packaging of the tool. It is crucial to have a professional end-product and the packaging of the video influences this (Cybercollege, 2002). It would be important to asses the community's needs and involve participants from the community in the development of the packaging, so that the community can identify with the final end-product (Carlson, 1997). Further research is, therefore, required in the ***development of the packaging of the tool which was developed in this research***.

Not only is the professional appearance important to maximising the use of the tool, however. The marketing of the product is also important (Smith, 1993). Research is, therefore, also required in order to ***develop a marketing message*** which will result in an increase in community awareness regarding the prevention of communication disorders (Smith, 1993).

6.7 FINAL COMMENTS IN CONCLUSION

The value of research to clinical practice is an ongoing dilemma (Robin, 1999). It is certainly true that clinicians find it hard to apply theory to the complex clinical setting and some researchers may find it difficult to address the real-life issues which are facing clinicians and clients (Kamhi, 1993). Clinical practice should, however, be grounded in sound theoretical underpinnings (Robin, 1999). This research has attempted therefore to address the very real and practical needs of a community in a theoretically sound, research-based manner.

This process started with a study of available literature and previous research findings which led to the accumulation of valuable information and the formulation of certain ideas and notions. Nevertheless the researcher soon realised that nothing was quite as valuable to meeting the needs of a community as the individual responses from participants and the insights gained from group discussions. The researcher had to acknowledge that the community needed to play a central, active role in the whole process, from identifying their needs and deciding what to include and how to present

it, to evaluating the resulting tool. This meant that the researcher had to loosen the hold on the reigns of control and trust in the community's ability to know what was best for them.

This produced tremendous growth in the researcher, resulting in a new respect for the principles of culturally sensitive, family-centred practice (Louw & Avenant, 2002). But more importantly this research lead to the development of a tool which was well-received by participants from the community for whom and by whom it was developed. The words of the focus group participants say it best:

"I think it is a great video. It was so interesting. Where was this when Jessica was just born? I was so worried about these exact things."

"I think that parents feel very empowered when they have information which tells them what to expect … This can alleviate a lot of worry and headache later on …"

"Oh yes, I would have loved to have had this before my children, even between the children, because one forgets so much and one learns again with every child…Yes, I also feel more empowered now that I have watched the video."

"I felt like the video was talking to me like an educated mom … I really enjoyed it and I think a first time mom or dad would find something like this very useful."

"As a new mom … you find it floundering. What should I do with this baby? … so this video would have helped me … it made me less worried"

"Maybe they should include it in the hospital package or something."

The researcher has great hopes and aspirations regarding the real and practical value of this research for South Africa. Perhaps one day tools like this one *will* be supplied to all new moms as part of a hospital package. But aside from the greater good of the research findings the researcher will always be thankful that this study made a difference to the lives of the participants.

Rob Reiner, founder of I Am Your Child Foundation once said:
***"The first three years last forever"* (Squires, 2000).**