

5 RESULTS AND DISCUSSION

The aim of the chapter is to describe, to display by means of graphs and tables, and to interpret the results of the study. The results of Phase One reflect conclusions that were drawn from comparing the results of the survey with information gathered in focus group discussions. The results of Phase Two reflect the process of refining the information that was gathered in Phase One in order to produce the tool. The results of Phase Three reflect whether the tool that was developed in Phase Two was successful in meeting the needs of the community.

5.1 INTRODUCTION

Scientific research is guided by the identification of a research problem or the formulation of a hypothesis and requires the collection and interpretation of data in an attempt to resolve the research problem (Leedy & Ormrod, 2001). In the current study the research problem identified, was meeting the need of a specific community for a tool for parents regarding the stimulation of communication development in infants. In order to meet this need, the researcher first had to determine the scope of needs within that community. This entailed establishing what the general trends were in terms of the needs of parents and professionals within the community. Once the range of needs was identified the researcher had to establish which specific issues to address in the tool. By actively involving the parents from the community in the process of refining the possible topics to be covered in the tool, as well as the processes of development and validation, the researcher ensured that the results of the study reflected the genuine needs of the community. This ensures that the tool will be relevant and empowering to parents.

The adoption of the constructivist perspective allowed the researcher to become an active participant in the research process. The interpretation of opinions and the development of the resulting tool was a transactional process which was enhanced by the active participation of members of the community through repeated focus group discussions (Bloor *et al.*, 2001). The results described in this chapter are organised

according to the three phases of the research, namely Phase One: A needs analysis; Phase Two: The development of the tool and Phase Three: The validation of the tool. The presentation of the results is schematically illustrated in Figure 5.1.

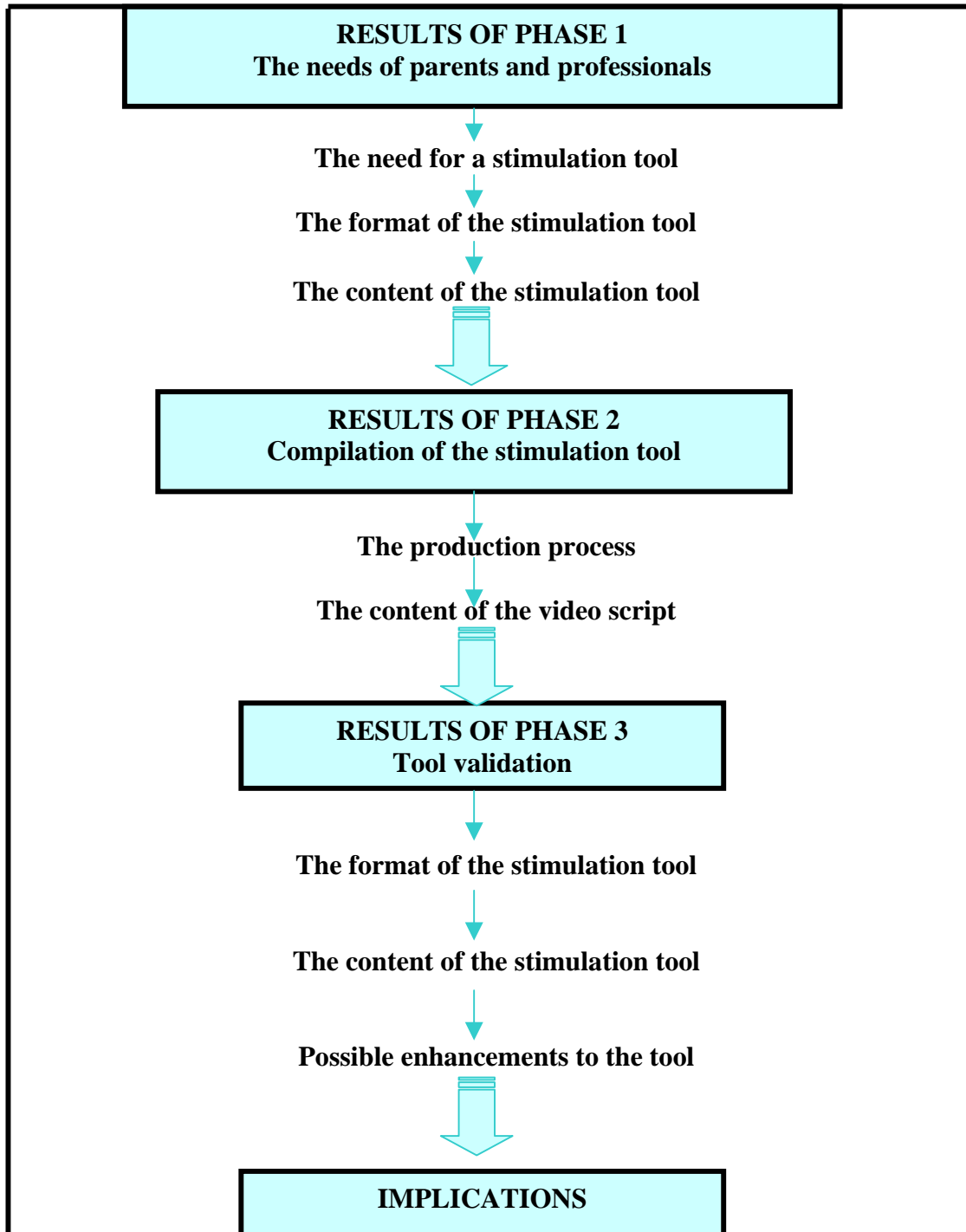


Figure 5.1 A schematic presentation of the results

5.2 RESULTS OF PHASE ONE: THE NEEDS ANALYSIS

As displayed in Figure 5.1 the results of Phase One of the research are presented in terms of the need for a stimulation tool, the desired format and the required content for such a stimulation tool.

5.2.1 The Need for a Stimulation Tool

Developing a training tool for parents that meets the needs of a specific community requires a considerable amount of time, manpower and finances (Cybercollege, 2002). In order to justify the resources involved in developing the tool, the researcher was required to determine the extent to which parent and professional participants felt there was a need for a tool for the stimulation of communication skills in infants.

.1 Needs expressed in the questionnaires by parent participants

In Questionnaire 1, question 9 of Section B gathered information on *participants' perceptions of their knowledge regarding infant communication skills*. The results are displayed in Figure 5.2.

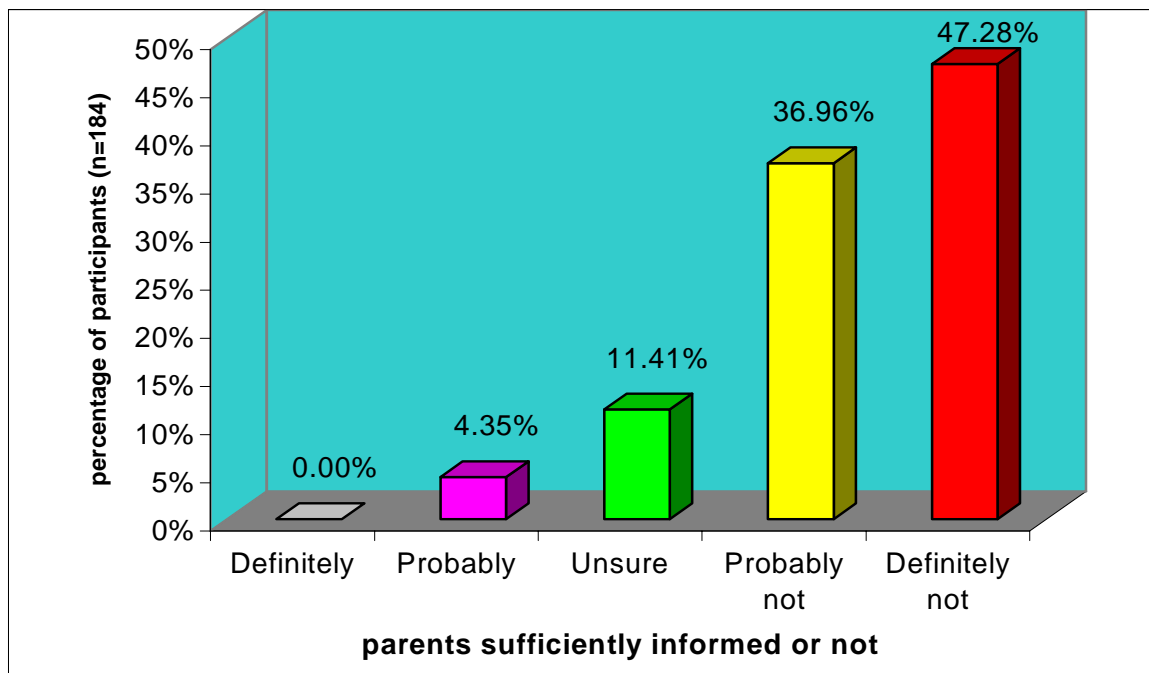


Figure 5.2 Parent participants' perceptions of their knowledge on infant communication development

According to Figure 5.2 the majority (47,28% definitely + 36,96% probably = 84,24%) of the participants felt that they were not sufficiently informed regarding infant communication development in order to help prevent the development of communication problems in their infants. Current trends in early intervention reflect that parents need to be central figures in the decision-making process regarding their infant’s health care (Widerstrom *et al.*, 1997; Dworkin, 2000). This trend should also be followed when involving parents in the prevention process. In order to be involved parents must have access to all the applicable information (Rossetti, 2001). It is clear from Figure 5.2 that a need was identified for additional information on communication development to be provided to parents in the specific community in order to empower these parents with the knowledge and ability to prevent communication disorders.

Question 10 in Section B of Questionnaire 1 determined whether participants felt that *information on infant communication development should be readily available* to them. The results are displayed in Figure 5.3.

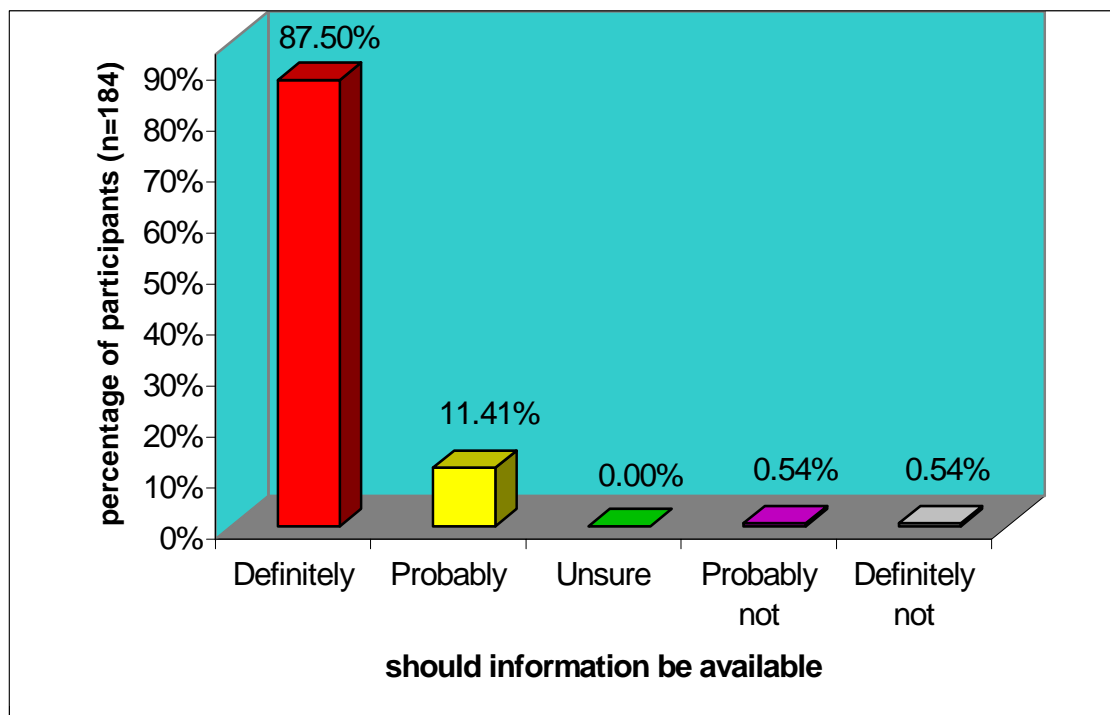


Figure 5.3 Parent participants’ perceptions regarding the availability of information

According to Figure 5.3 87,5% of the participants felt that information on infant communication development should *definitely* be readily available to parents. This response becomes even more convincing when viewed in the light of the previous result, namely that participants did not feel sufficiently informed regarding infant communication development. Clearly participants desired more information to be made available to them.

Some tools and information packages on development are already available in South Africa. Tools such as those by Popich (2001), Morrison (1998) and Bailey (1998) have been developed to address various aspects of development. There is, however, a need for information on development that is aimed at specific communities (Garcia Coll & Magnuson, 2000). One such tool was developed by Mc Conkey (1996a) in order to address the needs of a community in Bushbuckridge, South Africa. The video tool addressed the need within a developing community for involving parents of children with severe disabilities in the intervention process (Mc Conkey, 1996a).

There are, however, a range of communities in South Africa with differing needs that should be addressed through a spectrum of services (Fair & Louw, 1999). Professionals have a responsibility to address the needs of all communities through the delivery of appropriate services which recognise cultural needs within communities (Hughes, 1992; Louw & Avenant, 2002). In the multi-cultural, multi-lingual South African context this implies that speech-language therapists need to develop culturally-sensitive, community-specific tools. This should not imply that research in one community does not have implications for service delivery within other communities but rather that speech-language therapists would have to adapt tools to make them culturally applicable and that the needs of no South African community are unimportant. The current research looks at the need for service delivery within a developed community in South Africa.

Question 11 in Section B of Questionnaire 1 ascertained whether participants would have liked to be *provided with information on infant communication development*. The results are displayed in Figure 5.4.

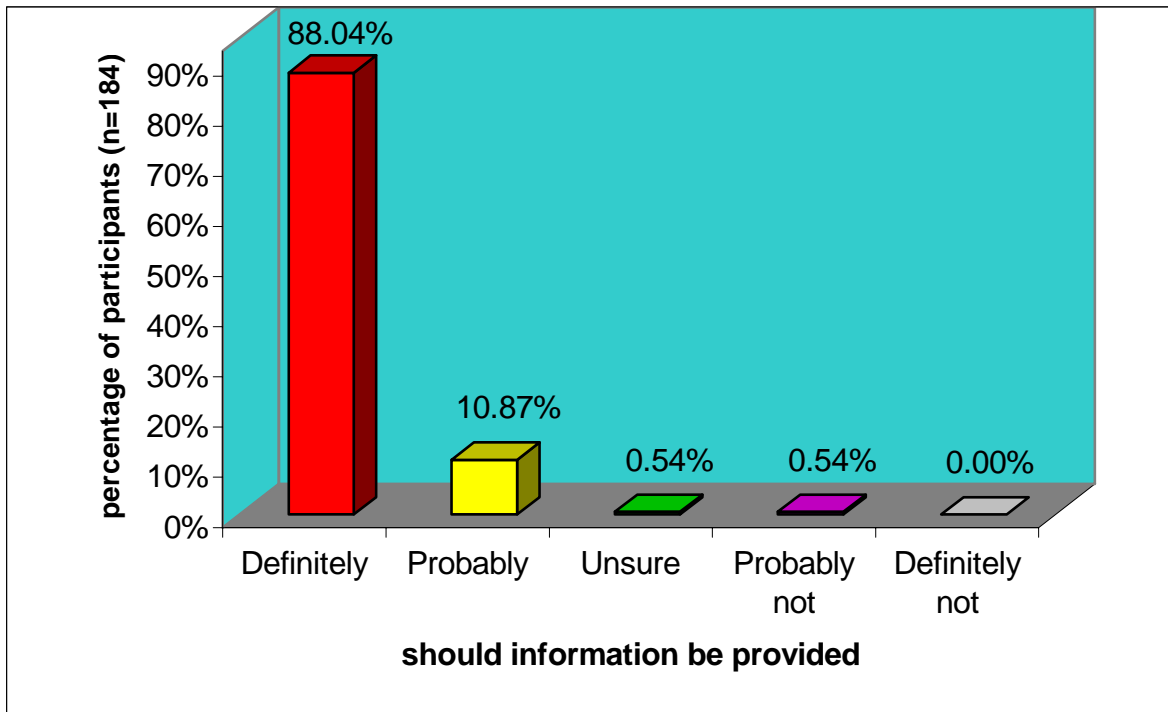


Figure 5.4 Parent participants' perceptions of information needs

As seen in Figure 5.4 the majority of parent participants would have liked to receive information on the stimulation of communication development in infants. Once again 88% of the participants felt that they would definitely have wanted to receive information. This response concurs with the results in Figures 5.2 and 5.3 and clearly shows that the participants desired more information on infant communication development.

These findings also reflect those of previous research (Able-Boone, Sandall, Loughry & Frederick, 1990; Hadadian & Merbler, 1995) which indicated that parents desire more knowledge on issues relating to their children's communication development. The fact that this result concurs with previous findings increases the credibility of the finding.

Question 12 in Section B of Questionnaire 1 determined whether participants would *purchase a tool on infant communication development*. The results are displayed in Figure 5.5.

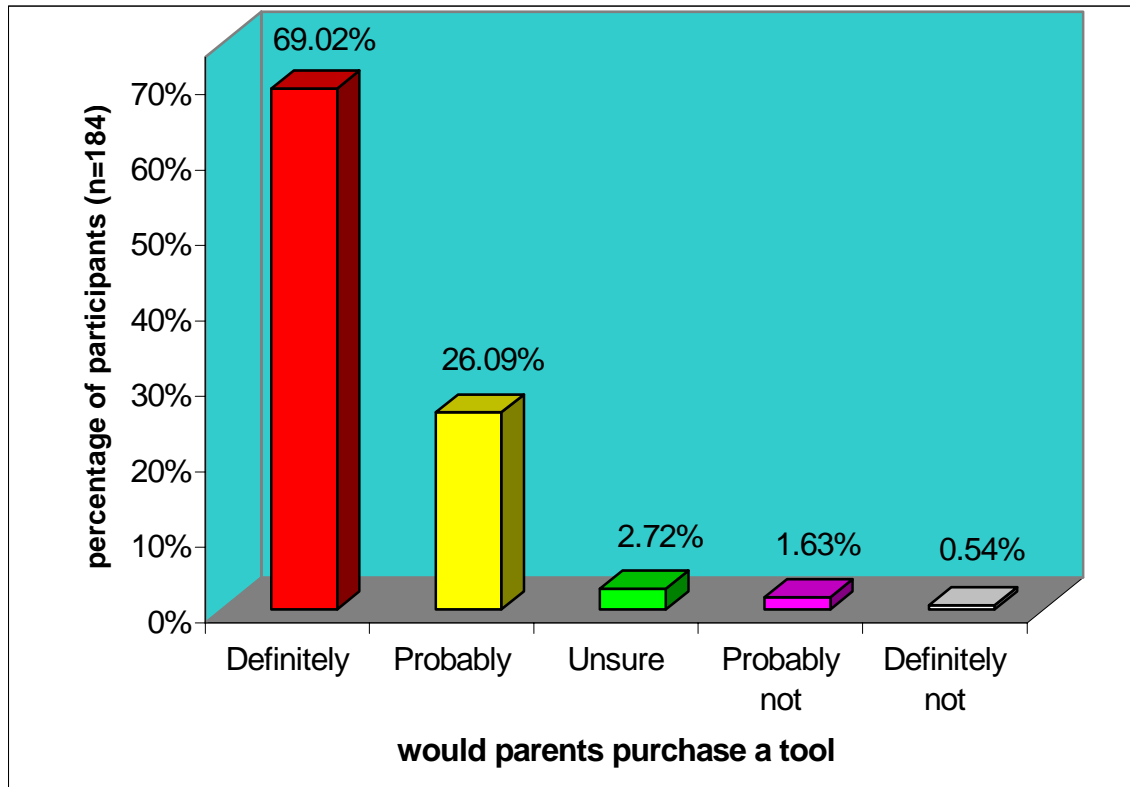


Figure 5.5 Parent participants’ opinions on purchasing stimulation tools

According to Figure 5.5 the majority of the participants felt that they would purchase a tool on the stimulation of infant communication development. Although participants indicated that they would like to receive information (Figure 5.4), they also indicated that they would be prepared to purchase such a tool at their own expense. It is clear that the participants desired more information on infant communication development and are prepared, if necessary, to carry the cost of purchasing information.

This finding may be due to the fact that the participants are from the upper-middle income group. It is accepted that external resources act as protective factors which help prevent potentially at-risk children from developing problems (Werner, 2000). The participants in this study had access to external resources which could help them to stimulate their infants (Werner, 2000). In this study the cost of the tool for the stimulation of infant communication skills, was not a critical factor for the population

for whom it is being developed. The results of the survey indicated that participants would acquire such a tool regardless of whether it has to be purchased or if it is free of charge. Furthermore the results of the survey indicated that the selection of a format for a tool on the stimulation of infant communication skills is not influenced by the cost thereof.

.2 Needs expressed by parent participants during focus group discussions

The main purpose of these focus group discussions was to provide some of the participants with the opportunity to express and discuss ideas regarding the development of a tool. Complete transcriptions of both the focus group discussions that were held during Phase One are included in the appendices (see Appendices D and E).

In both of the focus group discussions the members were relaxed and comfortable. The participants all contributed to the discussions which were lively. This was probably due to the fact that the researcher used pre-existing social groups for the focus group discussions (Bloor *et al.*, 2001). Research has shown that focus group interviews are well suited to creating an atmosphere that is conducive to explorative research (Bristol & Fern, 1996). Each discussion lasted fifteen minutes.

The aim of the first part of the discussion was to *determine whether the participants of the focus groups felt there was a need for a tool* for parents on the stimulation of communication skills in infants. The results are presented in Table 5.1. All themes that were identified in the analysis are listed below. The number of participants who expressed the same idea is also noted as this provided important information on whether it was an individual opinion or a group consensus.

Table 5.1 The need for a tool according to the focus group discussions

CATEGORY	DESCRIPTION
Results of focus group one (n=5)	<p>The following opinions were expressed during the first discussion:</p> <ul style="list-style-type: none"> • Parents would welcome a tool because there is a need for information to be readily available to parents in order to enable parents to identify possible problems (one participant). • There is a need for the sharing of information and resources with parents (one participant). • Parents would welcome a tool because parents find an increase in information and knowledge to be empowering rather than stressful (ALL participants). • Parents want to know what to look and listen for in their child's communication development (one participant). • An increase in knowledge would decrease the anxiety and depression that new mothers experience (one participant). • Parents want guidelines on what is normal (ALL participants).
Results of focus group two (n=6)	<p>The following opinions were expressed during the second discussion:</p> <ul style="list-style-type: none"> • Parents want a tool that will provide more information on bilingual language development (one participant). • The need for information on normal speech and language development was expressed repeatedly (ALL participants). • Parents want to know what to do and when to do it (one participant). • Parents would like a tool on infant communication development to be readily available (ALL participants).

According to Table 5.1 it is clear that the participants in both the focus group discussions expressed a definite need for a stimulation tool to be developed. Some valuable insights were also gained as to why these parents felt they would want such a tool. This is in agreement with the theory underlying focus group discussions, namely that group interactions provide enriched data and that focus groups provide insights into underlying attitudes (Morse, 1994). The participants in the focus group discussions not only expressed a need for a tool on the stimulation of communication skills in infants, but they also expressed a need to be empowered with information in order to feel less stressed about their children's development. Both groups expressed a desire to know what normal communication development entails. Furthermore, the focus group discussions emphasised the importance of such a tool as a way of empowering parents with knowledge on normal development, allaying parental fears and decreasing parental stress.

This is an important finding when one considers the findings of the survey, namely that 88% of the participants felt that they definitely wanted to receive information. The results of the focus group discussions confirm the results of the survey which indicated that the participants desired more information on infant communication development and provide insight in the reasons therefore, namely that knowledge leads to a decrease in fear and stress. These findings are in agreement with the basic tenet that parents from all cultures strive to help their children develop maximally (Garcia Coll & Magnuson, 2000). Parents across the board require knowledge in order to help their children develop physically, mentally and socially (Garcia Coll & Magnuson, 2000). Parents desire to aid their children to fit into society but the skills that parents aim to develop will depend on community-specific knowledge (Garcia Coll & Magnuson, 2000). Professionals should, therefore, provide appropriate information on development to parents. This study therefore, aims to empower parents from a specific community with access to information on the development of communication skills in infants.

.3 Needs expressed in the questionnaires by professional participants

In Questionnaire 2, question 8 of Section B gathered information on *the perceptions of professionals on parents' levels of knowledge regarding infant communication skills*. The results are displayed in Figure 5.6.

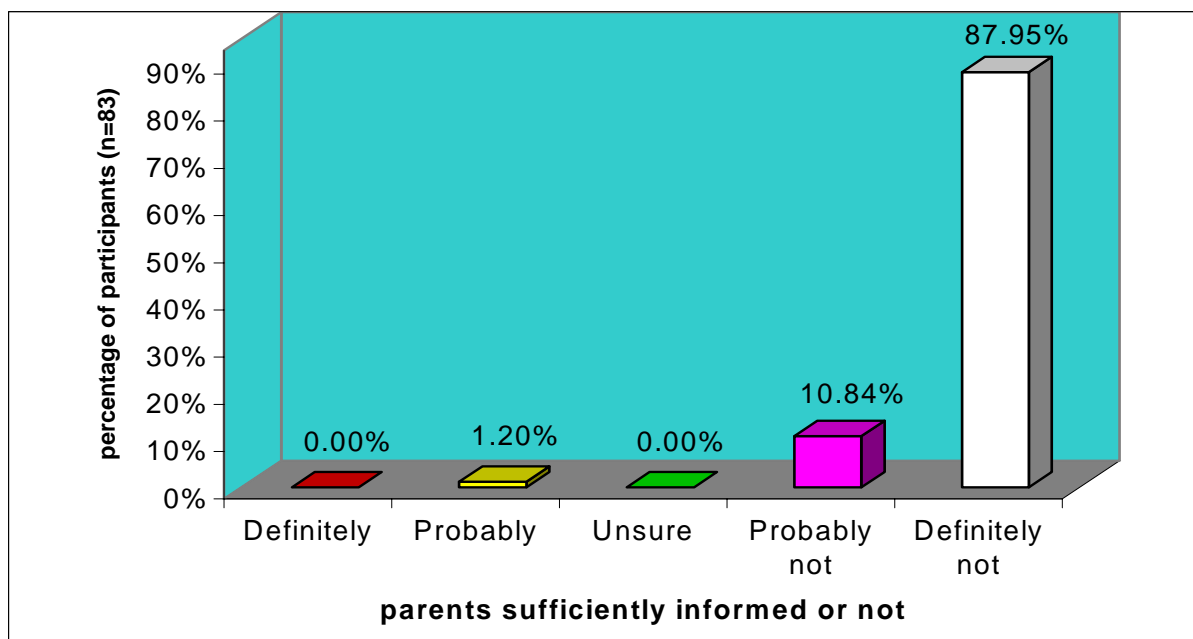


Figure 5.6 Professionals' perceptions of parental knowledge

According to Figure 5.6 the majority (87,95% definitely not + 10,84% probably not = 98,79%) of professional participants felt that parents are not sufficiently informed in order to help prevent the development of communication problems in infants. A comparison between the results displayed in Figures 5.4 and 5.6 indicates that both groups of participants felt strongly that information should be made readily available to parents. Professionals should strive to provide parents with the information they need and desire. Professionals should form partnerships with families and communities in order to empower them with the information they need to promote optimal development (Mc Conkey, 2002b).

Question 9 of Section B in Questionnaire 2 determined whether professionals felt that *information on infant communication development should be readily available* to parents. The results are displayed in Figure 5.7.

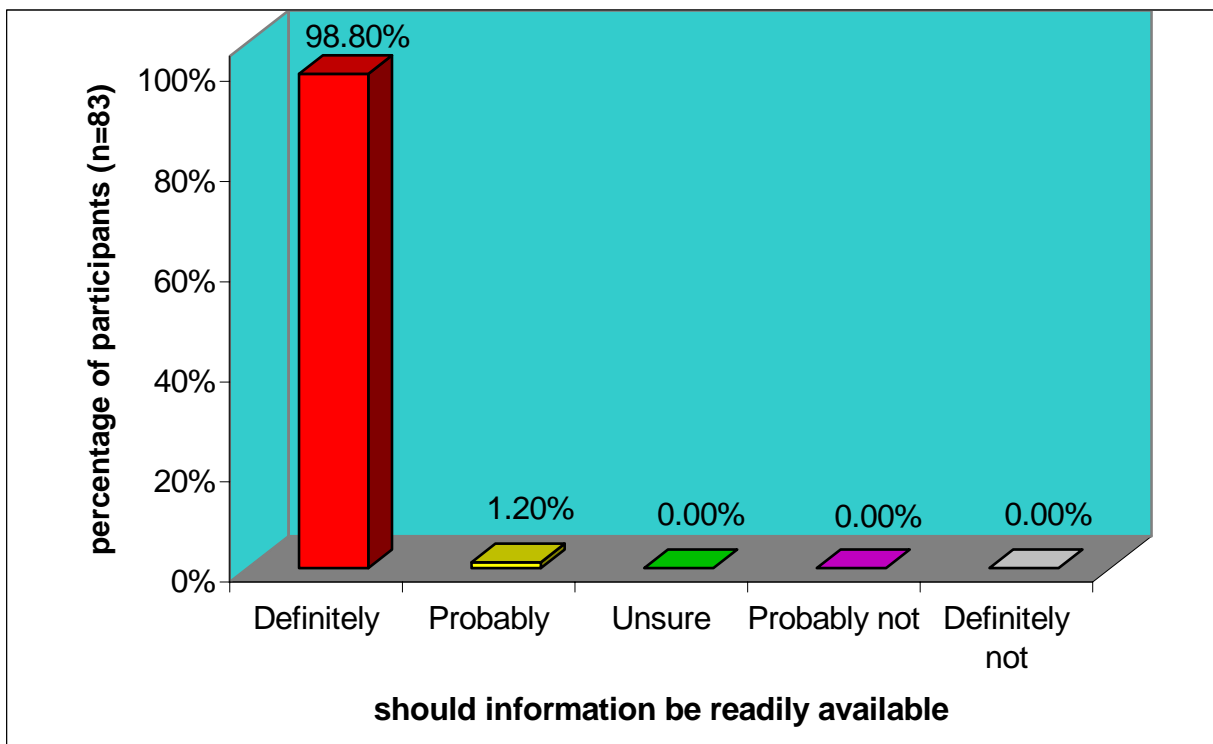


Figure 5.7 Professionals' opinions regarding the availability of information for parents

Figure 5.7 indicates that 98,8% of the professional participants felt that information should *definitely* be readily available to parents, which is appears to coincide with the

previous finding, namely that professionals felt that parents are not sufficiently informed. It is clear that professionals perceive parents as under informed and that information needs to be made available to parents in order to empower them to be more involved in the stimulation of communication skills.

Parents from all communities aim to stimulate optimal development in their children (Garcia Coll & Magnuson, 2000) and many communication disorders may be prevented by providing parents with the necessary information (Hugo & Pottas, 1997). It is, therefore, important that information be made available to parents to enable them to fulfil their role as central figures in facilitating optimal development in their infant.

Question 10 and 11 of Section B in Questionnaire 2 gathered information on *how often professionals provide and are requested to provide parents with information on infant communication development*. The results are displayed in Figures 5.8 and 5.9.

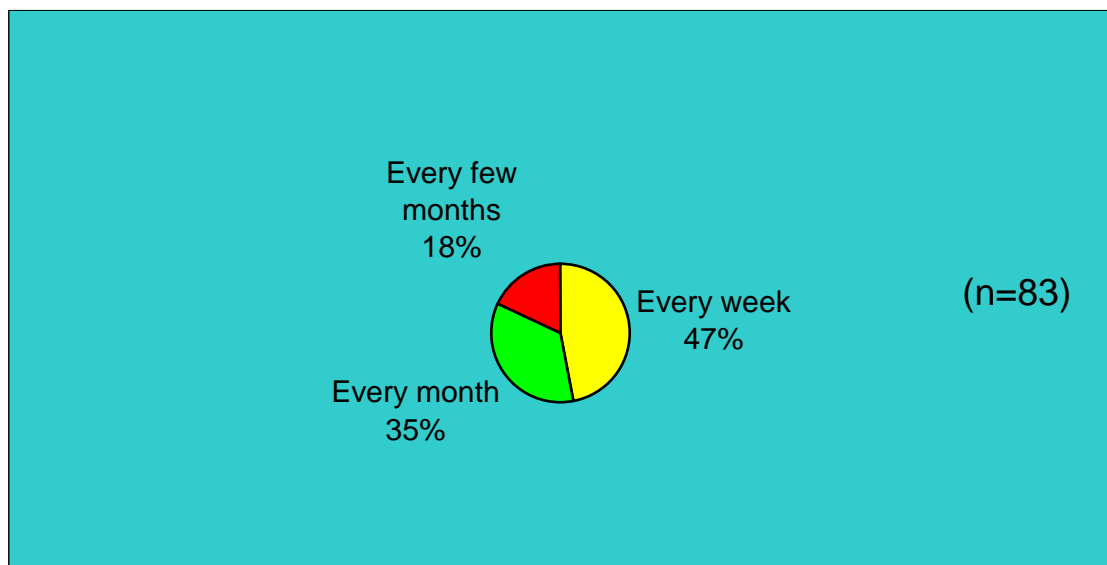


Figure 5.8 Perceptions of frequency with which professionals provide information

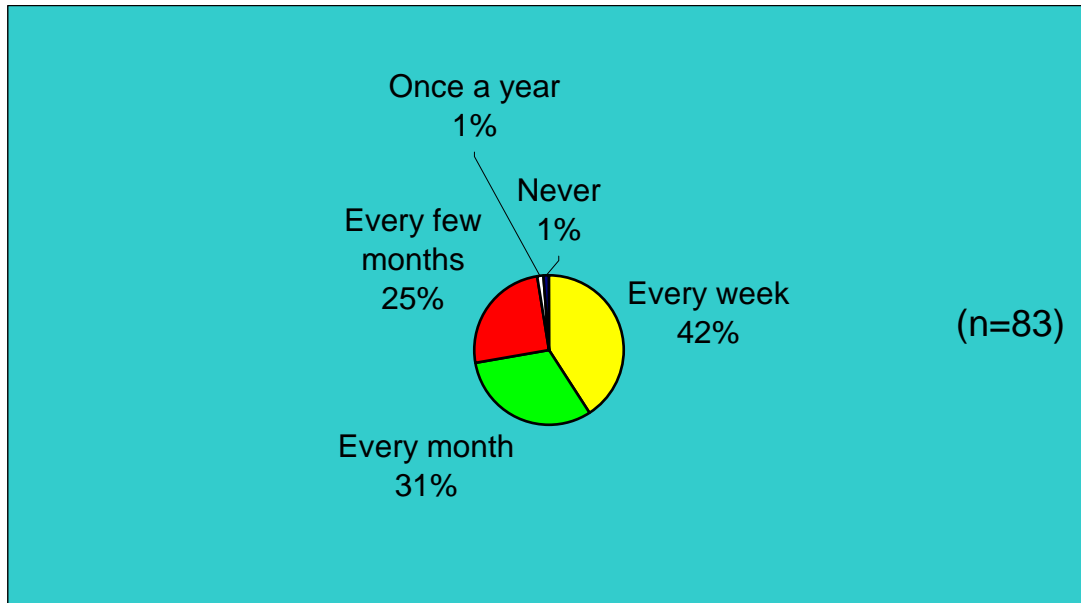


Figure 5.9 Perceptions of frequency with which parents request information

According to Figure 5.8 professionals felt that they provide parents with information on infant communication development on a regular basis. A total of 82% of the different professionals involved in this study stated that they provide parents with information on communication development on a weekly (47%) or monthly (35%) basis. As seen in Figure 5.9 professionals also stated that parents request information on infant communication development on a regular basis.

This finding is important when one considers the variety of professionals who were involved in the opinion poll, namely: speech-language therapists, occupational therapists, educational psychologists, nurses, parent-infant workshop leaders and social workers. Some of these professionals (such as the nurses, parent-infant workshop leaders and social workers) provide services primarily to normally developing children whilst some professionals (such as the speech-language therapists, occupational therapists, educational psychologists) serve children with disorders and disabilities. The findings, which indicated that a large majority of professional participants are frequently called upon to provide parents with information, therefore imply that both parents of children with disorders, as well as parents of normally developing children, desired more information on infant communication development.

None of the participants felt that they only provide information *once a year* or *never*. It is clear, therefore, that all of the before-mentioned professionals are involved to some degree in providing parents in the community with information on communication development. These different professionals could, therefore, be viewed as part of an informal transdisciplinary team working on infant communication development in this specific community.

This has important repercussions for the community as many of these professionals may not be adequately trained in the area of infant communication development. It is, however, critical that parents are provided with accurate information. The different professionals within a transdisciplinary team should have access to the necessary information and should work towards common goals (Rossetti, 2001). There is, therefore, a need for a comprehensive tool which can provide guidelines to all participating parties. A tool on the stimulation of infant communication skills would provide common goals for all professionals and parents to work towards in the prevention of communication disorders.

It is concluded through the survey as well as focus group discussions that a need was identified by parents and professionals alike for a tool on the stimulation of communication skills in infants to be developed and made available. The researcher, therefore, needs to address an identified need within the specific community by developing a tool on the stimulation of communication skills. Such a tool would also be in line with current trends, both locally and internationally, to focus on promoting wellness, optimal development and resilience (White Paper on Integrated National Disability Strategy, 1997; Werner, 2000).

5.2.2 The Format of the Stimulation Tool

Although professionals have a valuable role in determining relevant content to include, a tool for parents has to reflect the needs of parents in terms of the format it is presented in. Parents desire information that is specifically tailored to their needs (Kaiser & Gray, 1993). In order to achieve this objective, and on the advice of a professional with experience in developing tools for parents from various

communities (Mc Conkey, 2002a), the researcher presented the parent participants with different format options from which they could indicate their preferences.

.1 Preferences expressed by parent participants

Section C of Questionnaire 1 addresses the issue of the format parents would choose when acquiring a tool for the stimulation of communication skills in infants. In questions 13 and 14 the parent participants were requested to state their preferred format for information that was free of charge as well as for information that was to be purchased.

Figure 5.10 is a graphic presentation of the *formats that participants would have preferred if the information on infant communication development were to be free of charge.*

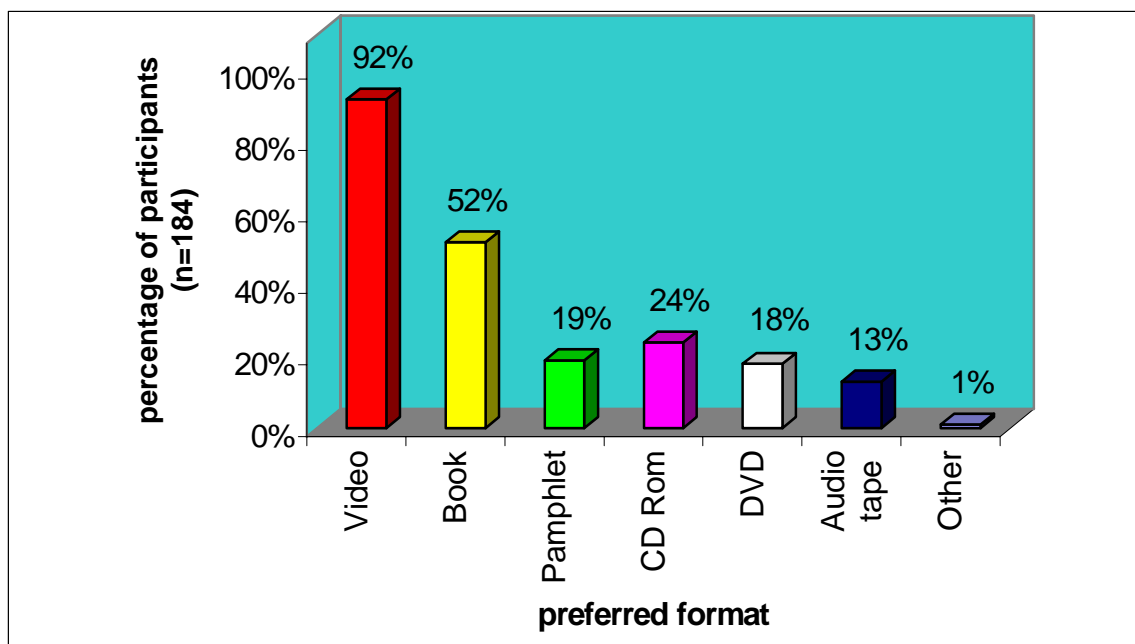


Figure 5.10 Preferred formats for free information

Figure 5.11 indicates which *formats participants would have preferred if they had to purchase the information* on infant communication development at their own expense. In both of these questions the participants could indicate more than one option.

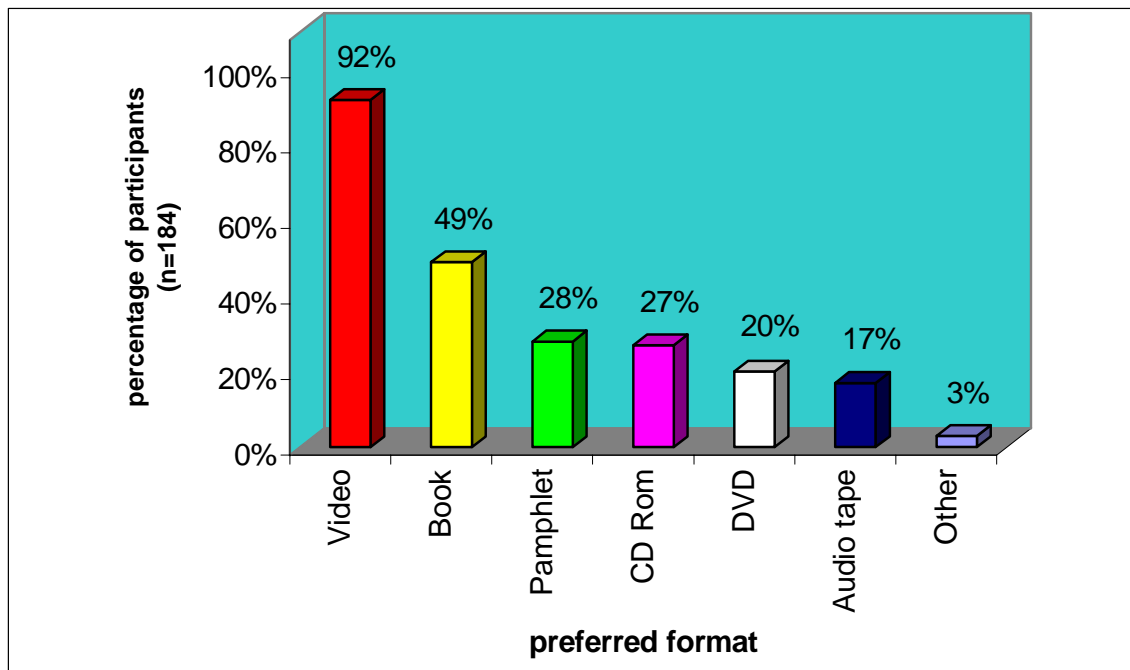


Figure 5.11 Preferred formats when information is to be purchased

According to Figures 5.10 and 5.11 the majority of the parent participants (92%) selected a video as a favourite choice in format if the tool was to be free of charge and if they were to purchase the tool at their own expense. A large proportion of the parents in the survey also indicated a book as another popular choice (49% if it were free of charge and 52% if it had to be purchased).

The choice of a video format is also in agreement with parent needs expressed in previous research (Hadadian & Merbler, 1995; Klein & Briggs, 1987). Hadadian and Merbler (1995) used a survey to determine which information parents of children with special needs wanted as well as the format that they wanted it in. Although Hadadian and Merbler (1995) looked at the needs of parents with children with special needs and not at the needs of parents with normally developing children, it is interesting to note what their preferences were regarding the format of training tools. The results indicated that most of the fathers as well as a large proportion of the mothers preferred a video format (Hadadian & Merbler, 1995).

A comparison of the data from Figures 5.10 and 5.11 reveals that the choice of format did not appear to be influenced by the cost. This may be due to the fact that the participants resided in a developed area and were from the upper-middle income

group. As previously stated (Figure 4.10 in section 4.6.2) the parent participants in this study have access to external resources which can help them to purchase the necessary tools. The choices regarding the development of a tool for the stimulation of communication skills in infants during Phase Two was therefore not based on considerations regarding the cost to parents but rather on parent format preferences.

In question 15 in Section C of Questionnaire 1 the participants were asked whether they felt that the tool should *include practical demonstrations* of stimulation techniques. Although it could be argued that this question was relevant to the content of the tool, this was an important issue to be determined in this section as certain formats would not make the inclusion of practical demonstrations possible. The results indicated that 98% of the parent participants indicated that the tool should include practical demonstrations of stimulation techniques. The preferences of participants are important to the development of a tool as current trends in adult learning advocate parents being involved in the decision-making process regarding the presentation of materials (Carlson, 1997).

Tools that have been developed for parents of children who are at risk for communication delays, as well as tools for parents of normally developing children, have indicated that practical demonstrations form an important part of the tool (Johnson & Heinze, 1990; Parks, 1998; Manolson, 1992; Mc Conkey, 1996b; Morrison, 1998; Popich, 2001; Bailey, 1998). Considering the needs of the parent participants as well as trends in other tools it would be important to choose a format that would allow for the inclusion of practical demonstrations. The selection of a video format would allow for this (Cybercollege, 2002).

.2 Preferences expressed by parent participants during focus group discussions

The two focus group discussions that were held during Phase One (see Appendices D and E) are presented in Table 5.2. The aim of the second part of the discussion was to *determine which format* the participants of the focus groups felt would be the best option for a tool for parents on the stimulation of communication skills in infants. All themes that were identified in the analysis are listed below. The number of

participants who expressed the same idea is also noted as this gives important information as to whether it was an individual opinion or a group consensus.

Table 5.2 The format of the tool according to the focus group discussions

CATEGORY	DESCRIPTION
Results of focus group one (n=5)	In the first focus group discussion the whole group was in agreement on the fact that they would choose a video. Other options such as a book or a web-site were mentioned as possibilities by individual participants.
Results of focus group two (n=6)	In the second focus group discussion the whole group was once again in agreement on the fact that they would choose a video but two of the participants felt they would also welcome a book format.

According to Table 5.2 it is clear that the participants in both of the focus group discussions expressed a preference for a video format. Although individuals mentioned other formats, a video was the only format that all the participants were in agreement on. Videos are a popular method of instruction with adult learners (Cybercollege, 2002). This strong preference for a video format by the focus group participants concurs with the findings of the survey which indicated that the majority of the parent participants selected a video as a favourite choice in format regardless of whether the tool was to be free of charge or if they were to purchase the tool at their own expense.

Videos are convenient tools for families for enhancing communication as families can view them at their own convenience and pace and the information is available to all family members as well as other interested parties (Banigan, 1998). In another study where videos were used to provide practical demonstrations of interaction strategies this was found to be one of the most effective intervention techniques (Klein & Briggs, 1987). Research has found that even modest training videos can significantly influence interactions between parents and their infants (Wendland-Carro *et al.*, 1999).

Books also appeared to be a popular choice of format for the focus group participants. This is also in line with the findings of the survey where approximately half of the parents expressed that they would also favour a book format. Internationally, there are many parent-friendly books available on communication development (Owens, 2001; Banigan, 1998; Devine, 1991; James, 1990). Another format that was mentioned in

one focus group discussion was a web-site. This choice may be a reflection of the fact that the targeted community is a developed, upper-middle income group which has access to the internet. Web sites are important sources of information on almost any topic. There are many different sites currently available that provide parents and professionals with information on communication development and disorders (Groenewald, 1998). A decision was made to produce a video as this remained the most popular option in both the focus group discussions and the survey. However, references to books were included at the end of the video, should parents desire further information. The decision to produce a video concurs with research into adult learning which indicates that learning through visual media is more effective than learning from books (Hansen, Narayanan & Hegarty, 2002).

In conclusion the findings of the survey and focus group discussions indicate that the most popular format was a video and, as is expected of a community that has access to external resources, the choice of format was not affected by the cost of acquiring the tool. This decision is also supported by the preference for the inclusion of practical demonstrations of stimulation techniques. The tool that was developed in Phase Two of this study was therefore in a video format, reflecting the needs of the participants as well as trends in research.

5.2.3 The Content of the Stimulation Tool

A tool for parents on the stimulation of infant communication development has to reflect the needs of the participants. It was therefore important to determine the areas that parents desired information on as well as the areas that professionals felt were important to include.

.1 Preferences expressed in the questionnaires

Section D of Questionnaire 1 and Section C of Questionnaire 2 presented the participants with different topics and questions in order to determine the areas that parents and professionals felt were important.

The parent and professional participants were required to indicate which topics they felt should be included in a tool for parents on the stimulation of communication skills in infants. Comparing the median values (Dane, 1990) of the variables will determine *which items the participants wanted to include* in the tool. Table 5.3 shows the median values for questions 16 and 19 from Section D of Questionnaire 1 as well as questions 13 and 16 from Section C of Questionnaire 2.

Table 5.3 Variables relating to recommendations regarding the tool content

VARIABLE	MEDIAN VALUE (Questionnaire 1: parents, n=184)	MEDIAN VALUE (Questionnaire 2: professionals, n=83)
A description of normal speech development	1	1
A description of normal language development	1	1
The relationship between sucking swallowing and breathing	1	1
Reasons why early stimulation is important	1	1
Guidelines on stimulating speech development	1	1
Guidelines on stimulating language development	1	1
Warning signs that indicate that communication is not developing properly	1	1
Where to locate a professional when concerned about communication development	1	1
The difference between speech, language and communication	1	1
A description of communication development in the first year of life	1	1
The neurological basis for language development	2	2
The relationship between sensorimotor development and language development	1	1
The role of the caregiver in encouraging infant participation	1	1
How to prepare for, elicit and encourage face to face communication	1	1
Key: a median value of 1 → the majority of the participants answered yes/include; a median value of 2 → the majority of the participants answered no/do not include.		

When comparing the median values of Questionnaires 1 and 2 in Table 5.3 it is clear that the parent and professional participants were in agreement regarding which topics are relevant to be included in a tool for parents on the stimulation of communication skills in infants. It is interesting to note that both groups of participants excluded the same item, namely the neurological basis for language development.

These findings concur with the content of published programmes on infant communication development and stimulation (Hussey-Gardner, 1999; Johnson & Heinze, 1990; Bailey, 1998; Parks, 1998; Manolson, 1992; Kumin, 1994). Although many of these programmes were developed for various population groups with congenital disorders the underlying principles discussed in these programmes are based on normal development. Such programmes (Hussey-Gardner, 1999; Johnson & Heinze, 1990; Bailey, 1998; Parks, 1998; Manolson, 1992; Kumin, 1994) focus on topics such as communication development in the first year of life, the importance of caregivers providing appropriate communication stimulation to their infants and how they can prepare for and encourage this, the stimulation of normal speech and language development, the relationship between sensorimotor development and language development as well as information on oral-motor development. It becomes apparent that many of the items that were selected by the participants in this study, to be included in a stimulation tool, correspond with the content of internationally published programmes, reflecting possible universal parental needs for information on communication development.

The findings of this study indicated that parents desire information on where to locate a professional also concurs with previous research findings. Hadadian and Merbler (1995) found that parents wanted to know which resources were available to them. Findings related to parents desire for information on available resources is important as professionals who offer their services to parents can be viewed as a human resource. Research by Able-Boone *et al.*, (1990) also found that parents requested information on available services. Parents therefore need to be supplied with information on available services and resources (Guralnick, 1997). If parental needs for information and services are not met it can add additional stress to the family, thereby creating a risk to communication development by interfering with the

family's interactions (Guralnick, 1997). It is important therefore that the need for information that has been identified within the specific community be addressed.

In order to counteract any possible bias that could result from the limited number of possible answers to closed-set questions (Maxwell & Satake, 1997; Leedy & Ormrod, 2001) the participants were given the opportunity to contribute in an *open question by listing other topics* that were not already listed in the questionnaires (Leedy & Ormrod, 2001). Question 17 in Section D of Questionnaire 1 determined what other topics parent participants felt should be discussed in the tool. Question 14 in Section C of Questionnaire 2 determined which additional topics professionals felt should be included in the tool. Table 5.4 lists the additional topics that were listed in the open question.

Table 5.4 Additional topics listed in the open questions

Topic	Number of Parent Participants (n=53)	Number of Professional Participants (n=45)	Total Number of Participants (n=98)
Bilingual language acquisition	21	10	31
Development of auditory/listening skills and hearing in infants	8	10	18
High risk factors such as ear infections that can influence communication development	0	11	11
Peer and sibling interaction	7	3	10
Development of non-verbal interaction, gestures, facial expressions and body language	5	5	10
Selection of books and the importance of reading and communication for later academic success	2	4	6
Selection of toys, materials and activities to do in order to stimulate communication development	0	6	6
Articulation errors	5	0	5
Role of play in communication development	0	4	4
Stimulation is not a quick fix but bears results over a long period of time	0	2	2
Use of baby talk	2	0	2
Advantages and disadvantages of using teats and dummies or breastfeeding	2	0	2
Cognitive development as a precursor to communication development	0	1	1
Value each child as an individual	0	1	1
Follow child's lead	0	1	1
Development of mathematics	1	0	1

According to Table 5.4 there were many additional topics that individual participants felt were important to be included. A total of 29% of the parent participants added one or more topics that they felt should also be addressed in the tool. In contrast almost twice as many (54%) professional participants added further topics to discuss in the tool.

This may imply that the parent participants were more likely to trust that the professional (i.e. the researcher) knew which topics should be included. Parents have been socialised to respect the advice of professionals (Widerstrom *et al.*, 1997). Not all parents may have felt comfortable expressing their opinion regarding other topics that were of interest to them. This may be true in spite of the fact that the questionnaires were confidential and the researcher stated (in a cover letter) how important each participant's opinion was. Alternatively the parents may not have had the necessary knowledge on infant communication development and the prevention of communication disorders to identify which topics had not already been listed in the questionnaire.

Another consideration is the criteria which were applied in the selection of professional participants. Two of the criteria for selection were qualifications and work experience. The professionals were, consequently, more knowledgeable on the topic of infant communication development and had more input to provide than the parent participants. This gave the researcher the opportunity to learn and gather new insights from the wide range of professionals who took part in the survey. Even though some topics were only mentioned by a few participants the information is still important to the researcher as it reflects a need that exists within the community.

In the questionnaire the researcher made use of countercheck questions (Leedy & Ormrod, 2001). This strategy helps to ***determine the consistency with which participants answered questions***. In Questionnaire 1, Section D, questions 16 and 17 the researcher addressed the same topics using different wording. The level of consistency in the responses would determine whether the participants had understood the questions and responded consistently, thereby increasing the reliability of the findings (Leedy & Ormrod, 2001). The *Fisher's Exact Test* (Steyn, Smit, Du Toit & Strashein, 1994) provides the frequency and percentage of respondents who indicated

yes/include to two different variables. This test was used to compare the parent participants' responses to the items in the countercheck questions. The results are displayed in Table 5.5.

Table 5.5 The consistency with which parent participants responded to questions

Countercheck Items Compared (n=184)	Frequency of participants who answered yes to both	Percentage of participants who answered yes to both	Whether topic will definitely be included
A description of normal speech development + When do babies typically start using different sounds?	167	92%	YES
A description of normal language development + Which words do babies usually use first?	160	88%	YES
The relationship between sucking swallowing and breathing + Do feeding problems and speech problems go together?	143	79%	YES
Guidelines on stimulating speech development + How do you help your child learn to say new sounds?	171	94%	YES
Guidelines on stimulating language development + What can you do to help your child develop good language skills?	182	100%	YES
Warning signs that indicate that your child's communication is not developing properly + How do you know if your child has a problem?	181	99%	YES

Table 5.5 displays a high frequency and percentage of participants who answered yes to both of the countercheck items. Reliability is reflected in the ability to yield the same results when the characteristic that is being measured has not changed (Leedy & Ormrod, 2001). A high level of participant response reliability was found, which increased the reliability of the resulting tool in terms of achieving the research objective of meeting the needs of the community (Leedy & Ormrod, 2001).

.2 Preferences expressed by participants during focus group discussions

The two focus group discussions held during Phase One are described in Table 5.3. The aim of the third part of the discussion was to determine what *content the participants of the focus groups felt should be included* in a tool for parents on the stimulation of communication skills in infants.

Table 5.6 Content preferences expressed during focus group discussions

CATEGORY	DESCRIPTION
Results of focus group one (n=5)	During the first focus group discussion the group was in agreement as to the content of the tool. The group addressed the matter together and came to a consensus. The participants agreed that issues related to <i>normal speech and language development</i> and <i>the role of the caregiver</i> were central points. Leading out of that discussion the list of possible <i>warning signs</i> and <i>where to locate a professional</i> could be given. The group felt that other topics were peripheral. The participants felt that the neurological basis for language development was not an issue that should be addressed. The parents indicated that it was not practical nor on the parents' level.
Results of focus group two (n=6)	During the second focus group discussion the group was also in agreement as to the content of the tool. All the participants were satisfied with the following content: Issues related to <i>normal speech and language development</i> ; how the <i>caregiver can prepare for face to face interaction</i> ; the list of possible <i>warning signs</i> ; issues that help <i>prevent problems</i> and <i>where to locate a professional</i> . Furthermore, the group felt that the issue of bilingual language acquisition should also be addressed in the tool.

According to Table 5.6 participants in both of the focus group discussions felt that certain issues were central and important whilst other issues were peripheral. Issues relating to *normal speech and language development*, *warning signs* and the role of *the caregiver* were central points according to both the focus groups. This concurs with the content of a prevention programme in the U.S.A. (Banigan, 1998). The focus in a programme developed by Banigan (1998), which is aimed at the primary and secondary prevention of communication disorders, is on providing parents with information on *normal speech and language development* and the facilitation there-of, the identification of *possible problems* and placing *the caregivers* in a central, decision-making role and empowering them with as much information as possible (Banigan, 1998).

The participants' decision that information on the neurological basis for language development was not relevant is in agreement with the findings from the survey which indicated that parent and professional participants were in agreement that the neurological basis for language development was not a topic that should be addressed in a tool for parents. The focus group participants indicated that they felt that information on the neurological basis for language development was not relevant to them. Research has, however, highlighted the reciprocal influence between infants' early communication development and the growth and development of the brain, neural pathways and synaptic connections (Nelson, 2000). Information on neurological development in infants is, consequently, definitely relevant to communication development. The fact that both professionals and parents, in the survey as well as in the focus group discussions felt that this was *not* a relevant topic to be included in the tool for parents may reflect a lack of insight regarding the importance of the neurological basis for language development. Alternatively those professionals who did have the knowledge to know the importance there-of may have felt that the topic was beyond the scope of such a tool.

A point that was highlighted for *inclusion* in both focus group discussions was the need for information on where to *locate a professional*. The establishment of *contact with trained personnel* is also a pivotal notion in a prevention programme developed by Banigan (1998). The prevention of many communication disorders (for example those caused by repeated middle ear infections or dental abnormalities) depends on contact with the correct professionals (Gerber, 1998). Information on where to locate professionals is therefore crucial to any prevention programme.

The second focus group also felt that information on resilience needed to be included. The need for information on reducing risk factors and increasing protective factors and, consequently, promoting resilience and normal development, is in line with current developments in various fields (Werner, 2000). Speech-language therapists are increasingly focusing on the reduction of risk factors and the promotion of health and communicative wellness as a primary prevention strategy (Gerber, 1998). In child health care the focus is shifting from primarily treating the sick towards also increasing protective factors and preventing disorders by promoting the healthy

development of normal infants (Dworkin, 2000). This recent focus on prevention by the medical practitioners is termed *anticipatory guidance* and one of the main goals is increasing protective factors by educating parents on normal development as well as providing guidelines on aspects of development that need monitoring (Dworkin, 2000). In fields such as early childhood intervention there is a similar move towards a focus on resilience. Studies reflect a shift in attention from the causes of developmental problems to increasing protective factors, reducing risks and *promoting resilience and the prevention of disorders* (Dworkin, 2000).

This study also aims to *promote resilience and the prevention of disorders* by providing information to parents. In order to reach the prevention objective the tool that was developed in Phase Two needed to be a reflection of international trends in prevention as well as the needs of the participants of this study. The following section looks at the criteria which were applied in the selection of possible topics to be included in the tool.

.3 Criteria for topic inclusion

As displayed in Tables 5.3, 5.4 and 5.6 the survey and focus group discussions identified a long list of topics of interest regarding the development of communication skills in infants. However, the researcher aimed to develop one tool that addresses issues that are of most interest and importance to parents, while considering the valuable input of the professionals who work with families from the community. As one tool could not meaningfully address all topics of interest, a decision needed to be made regarding which topics to include in the tool. Certain criteria needed to be employed to identify possible topics. The list of topics that were selected as possibilities was narrowed down further during the focus group discussions in Phase Two.

Table 5.7 presents the *criteria* the researcher used *in deciding which of the topics* that were identified in Tables 5.3, 5.4 and 5.6 *should be on the list of possibilities to be considered for inclusion in the tool*.

Table 5.7 Criteria used to determine the list of topics to be considered for inclusion in the tool

Criteria Used	Resulting topics to be considered for inclusion in the tool
<p>Items that are included reflect trends in the literature. An extensive literature review (see Chapters Two and Three) was done in order to review trends in infant communication development. The contents of the tool reflect a developmental orientation (Klein & Gilkerson, 2000). There are several programmes available on infant communication development which were developed for various population groups with congenital disorders. The underlying principles discussed in the programmes are however based on normal communication development.</p> <p>According to the developmental literature on communication development (Rossetti, 2001; Owens, 2001; Klein & Gilkerson, 2000) and a review of available programmes on infant development (Johnson & Heinze, 1990; Parks, 1998; Manolson, 1992; Kumin, 1994) there are many important issues that have to be addressed when discussing infant communication development.</p>	<p>The following topics from Tables 5.3, 5.4 and 5.5 were identified as possible topics to be included in the tool as they do reflect trends in the literature:</p> <ul style="list-style-type: none"> • the difference between speech, language and communication • communication development in the first year of life (including normal speech and language development) • reasons why early stimulation is important • the role of the interaction partner, especially the caregiver, in stimulating infant communication • how to stimulate language (including aspects on how to prepare for, elicit and encourage face to face communication) • how to stimulate speech with a focus on stimulating the precursors to speech, namely visual skills, auditory skills, motor skills, pre-speech skills, cognitive skills and early pragmatic skills • the importance of non-verbal communication such as gestures and facial expression • the individuality of each child
<p>Items that are included reflect the needs that are expressed in the focus group discussions. Items that are <i>agreed upon by 5 or more participants</i> within either of the focus group discussions will be discussed in Phase Two as possible topics to be included in the tool</p>	<p>The following topics from Table 5.3 were identified as possible topics to be included in the tool as they reflect needs that are expressed in the focus group discussions. Items already listed according to the above-mentioned criteria are not listed again.</p> <ul style="list-style-type: none"> • how and when to teach a second language • warning signs of communication delay • factors related to resilience • where to locate a professional
<p>Items that are included reflect the needs that are expressed in the closed-set questions in the questionnaires. All the topics that <i>parents or professionals agreed upon</i> to include will be discussed in Phase Two as possible topics to be included in the tool.</p>	<p>All of the items that were identified in the parents' and professionals closed-set questions are already listed according to the two before-mentioned criteria.</p> <p>One item, namely <i>the neurological basis for language development</i> will not be included on the list of possible topics to be included in the tool as both parent and professional participants indicated in the closed-set questions that they did not desire information on this topic.</p>

Table 5.7 Continued

Criteria Used	Resulting topics to be considered for inclusion in the tool
<p>Items that are included reflect the needs that are expressed by parent and professional participants in the open questions. Items that were agreed upon by 5 or more participants will be discussed in Phase Two as possible topics to be included in the tool.</p>	<p>The following topics from Tables 5.5 were identified as possible topics to be included in the tool as they reflect needs that are expressed in the open questions. Items already listed according to one of the above-mentioned criteria are not listed again.</p> <ul style="list-style-type: none"> • the role of other interaction partners such as peers and siblings in stimulating infant communication • the importance of reading to infants and the selection of appropriate books • lisps and articulation disorders

Table 5.7 displays the final list of fifteen items which were taken through to Phase Two in order to be considered for inclusion in the final tool. The decision to discuss a limited number of topics was done in accordance with information that was obtained from consultations with other professionals, as discussed in 5.3.2. The researcher was advised (Mc Conkey, 2002a) to narrow down the number of different issues addressed in the tool. This is also in agreement with other programmes which limit the number of topics to a few crucial issues (Banigan, 1998; Bailey, 1998; Mc Conkey, 1996b; Johnson & Heinze, 1990; Parks, 1998; Manolson, 1992; Kumin, 1994). Furthermore, the researcher aimed to reflect the needs of the community by actively involving parent participants from the community in the development process in Phase Two.

It can be concluded that the data analysis and interpretation revealed different topics and categories of information that were of interest to the participants. The analysis of the closed-set questions revealed which topics from the questionnaires the majority of participants felt should be included in a tool. These topics compared with those in existing programmes on infant communication development as well as with research findings regarding parental needs. The analysis of the open questions revealed other topics that some of the participants felt should also be addressed. Focus group discussions in Phase Two were used to refine these topics and determine the final content of the tool. The video script, therefore, reflects trends in the literature, needs expressed in the focus group discussions held during Phase One, the results of the survey, ideas that were expressed in the open questions of the questionnaires as well as further focus group discussions that were held in Phase Two.

5.3 RESULTS OF PHASE TWO: THE DEVELOPMENT OF THE TOOL

The results of Phase Two of the research, namely the development of the tool, are presented according to the production process as well as the resulting content of the video script. The steps that were followed in production and the results of the focus group discussions provide insights into the decisions that were made during the making of the tool. The final content of the tool is included in both written and visual formats for the sake of transparency. However, the theoretical orientation which the researcher brings to the development process provides a framework from which the decisions during production and final content can be viewed (Denzin & Lincoln, 2000).

5.3.1 The theoretical framework for the development of the tool

The researcher's adoption of the constructivist paradigm (as described in 4.2) implies that the interpretation of participants' opinions is a dialectic, transactional process, between the researcher and the participants (Denzin & Lincoln, 2000). In order to achieve this, the researcher sought to actively involve the community in the development phase of the tool. The researcher aimed to involve parents in determining which topics to address, what type of information to include in the topic discussions as well as how to present the information.

This approach reflects current trends in adult learning. Research indicates that adult learners benefit most from a learning situation if they have been actively involved in the process, resulting in an increased ability to consider multiple perspectives and relate theory to practice (Wright, Millar, Kosciuk & Penberthy, 1997). It has been recommended that adult curriculum should reflect the experiences of the learners, both as individuals and as part of a community (Knowles, 1980). This research focuses, therefore, on the needs and experiences of the community members, developing a tool which reflects their valuable input. This research acknowledges that adults are most likely to affect change when they can connect information to their own lives (Dewey, 1994). The participatory nature of the research process also acknowledges that parents have a wealth of knowledge and experience to contribute (Garcia & Magnuson, 1997).

5.3.2 The procedures for developing the video tool

The production of the video during Phase Two, involved a sequence of decisions and procedures. There are certain procedures that need to be followed in order to develop a professional video tool (Cybercollege, 2002). Factors relating to the target audience, the production schedule and personnel, the scenes included, the voice-over, sound effects, graphics and music will influence whether the tool is user-friendly and meets the aims and objectives that it set out to achieve (Cybercollege, 2002). During this study the following procedures were followed (Cybercollege, 2002):

- The researcher determined the need and value of the production for the target audience was determined. This was done in the opinion poll that was completed in Phase One.
- The researcher subsequently determined the goals and purposes of the video.
- The researcher identified and analysed the target audience and their needs because demographic variables are an important consideration as different communities have different needs in terms of video and television productions. The goal of the video was to meet these specific needs.
- The researcher wrote a script (see 5.3.3). Aspects such as descriptions of the scenes, the voice-over, sound effects, graphics and music were noted.
- The researcher developed a production schedule.
- The researcher viewed similar video productions that were already available in order to capitalise on their strengths and avoid making similar mistakes (Cochlear, 2002a; The Hanen Program, 2001; The Hanen Program, 1988; Bailey, 1998; Mc Conkey, 1996a, Mc Conkey 1996b).
- The researcher consulted with a large number of professionals in order to benefit from their expertise. This was done during Phase One and Two of the research. Professionals who are involved in creating training tools for parents on the development of language skills as well as professionals in the field of the prevention of language disorders were consulted. The results of these consultations follows:
 - During Phase One the researcher consulted with Professor Roy Mc Conkey from the University of Ulster, Northern Ireland, who has experience in developing video training tools for parents in African communities. He gave advice regarding the process that should be followed in the development of the training tool. Mc

Conkey (2002a) also made suggestions on the way the researcher should present information in a video training tool and on the reasonable number of different topics that could be meaningfully addressed in one tool. He further suggested that the researcher make use of repeated focus group discussions with a group of parents at the start of Phase Two in order to narrow down the number of topics and to discuss issues related to the presentation of the material. Finally he suggested that the validation process in Phase Three make use of focus group discussions with different groups of parent participants (Mc Conkey, 2002a).

- At the end of Phase One the researcher also visited Sydney, Australia. The researcher gave a presentation on the results of Phase One (Popich, 2002) to a group of speech-language therapists, audiologists and parents. After presenting the researcher consulted with a group of professionals (including Karlyn Clingham, Sylvia Romanik, Lynn Richards & Maggie Loanie: Cochlear, 2002b) who were busy making a series of video training tools for parents of hearing impaired children on language development in infants and young children. The following points were highlighted in the feedback from the presentation and the consultation: the professional quality of the tool is important to its success and usability, a large number of different infants should be used in the production of the tool and that the majority of the video shots should be filmed in the home during real-life activities. They also agreed that the number of different topics addressed in the tool should be narrowed down.
- Upon returning from Australia, before the start of Phase Two, the researcher presented the findings of Phase One at a national conference which focused on the prevention of communication disorders (Popich, Louw & Eloff, 2002). The findings of Phase One and the proposed process for Phase Two and Three were received favourably by professionals in the field.
- During Phase Two the researcher also submitted the draft copy of the tool for scrutiny by video professionals as well as professionals specialised in the prevention of language disorders. Based on their feedback the researcher made certain changes to the voice-over to improve the clarity, decided to include real-life footage of children that were at-risk for developing language disorders and decided to lengthen the video clips that focused on real-life mother-infant interactions.

- The researcher selected production personnel from Telematic Learning and Education Innovation, University of Pretoria as this study is connected to this university.
- The locations for the video shots were selected.
- The production team made decisions regarding the talent (people who star in the production), wardrobe and sets (equipment needed in the shots).
- The production team made decisions regarding the remaining personnel. In this video a professional presenter did the voice-over. The decision was based on the production teams' past experiences.
- The researcher obtained all the necessary clearances. In the case of this study permission had to be obtained from the University of Pretoria, Faculty of Humanities, Research Proposal and Ethics Committee. Permission was also obtained from the parents of all the infants featured in the production.
- The team designed all the necessary graphics.
- The team filmed all the video shots.
- Subsequently the researcher edited the video. The first step entailed off-line editing where specific shots were selected. The second step was on-line editing where computer equipment was used to piece together the different shots, graphics, special effects, music and voice-over.
- The video was scrutinised by the two supervisors of the researcher from the University of Pretoria (Professor Brenda Louw, Department of Communication Pathology and Dr Irma Eloff, Department of Educational Psychology). Final editorial changes were made based on their recommendations. These included changes to the video shots included in the second section of the tool. The final product was an edited master tape.
- The final step in a professional production is the evaluation of the product. This forms Phase Three of the study.

5.3.3 The Content of the Video Script

The content of the stimulation tool reflects the results of the needs analysis that was done in Phase One. This list was refined during further focus group discussions held during Phase Two. The main purpose of these focus group discussions was to provide members of the community with the opportunity to help develop the tool, thereby

ensuring that the tool would meet their requirements. Three different focus group discussions were held with a group of parents during Phase Two. The aim of the first discussion was to *narrow down the number of different topics to be included* in the tool. The aim of the second discussion was to *determine how parents wanted the information to be presented* to them. Additionally, the researcher aimed to determine how parents would feel about the provision of a tool that met with the requirements (relating to content and presentation) that they had specified in the first two discussions. The aim of the third discussion was to *determine the type of information that should be included* in the discussions.

The results are described in Table 5.8. All themes that were identified in the analysis are listed below. Once again the number of participants who expressed the same idea is also noted as this gives important information as to whether it was an individual opinion or a group consensus.

Table 5.8 Phase Two focus group discussions that aimed at refining the tool

CATEGORY	DESCRIPTION
Results of focus group one (n=7)	<p>In the first discussion the following opinions were expressed:</p> <ul style="list-style-type: none"> • Parents would like the tool to include information on the stimulation of communication skills from birth (ALL participants). • Information on both risk and resilience factors as well as where to locate a professional should be included (ALL participants). • Initially one parent felt that a discussion on normal development was not important but the other parents felt it was important. The parent who disagreed at first later agreed. • All the parents agreed that the important information was on normal development and not the definitions of speech, language and communication or the development of other skill areas. • The parents were in agreement that information on book reading and the development of a second language should not be included in the tool. • The bulk of the tool should be on the stimulation of communication skills (ALL participants). • The issue of where to locate a professional should only be addressed briefly (ALL participants).

Table 5.8 Continued

CATEGORY	DESCRIPTION
Results of focus group two (n=7)	<p>In the second discussion the following opinions were expressed:</p> <ul style="list-style-type: none"> • The parents expressed mixed feelings over the idea of including animated cartoon strips in the video tool. Two parents were in favour of it while three were not. The group later agreed that the idea of including animated cartoon strips might be a good one in theory but that the example that was demonstrated was not suitable. • Alternating between slides and videos was a popular suggestion with all of the participants. • Participants felt that slides indicating a list of items should have the items coming up one by one (ALL participants). • The use of running commentary, in the form of a professional voice-over, was popular but participants felt that clips should also be featured where the mother is interacting with the baby without a voice-over (ALL participants). • One participant suggested that the sound levels on the video clips should not be loud enough to interfere with the voice-over. • The video should include a variety of shots of normally developing infants (ALL participants). • Subtitles can be used in appropriate places (2 participants). • The participants said they would feel: empowered (4 participants), informed (2 participants), equipped, (1 participant) and self confident (1 participant), if such a tool were made available to them.
Results of focus group three (n=7)	<p>In the third discussion the following opinions were expressed:</p> <ul style="list-style-type: none"> • The video should include a range of different techniques for the stimulation of communication development (ALL participants). • Each technique should be discussed but also demonstrated (ALL participants). • The tool should focus on the adult not using inappropriate language (one participant). • The techniques that are demonstrated should occur naturally (ALL participants). • The tool should focus on the use of routines such as dressing, dinner and bathing (ALL participants).

Table 5.8 illustrates that the parents participating in the focus group discussions could reach a consensus as to the topics that should be included in the tool. The participants agreed that discussions and demonstrations on the normal development of communication skills in infants, techniques that would stimulate normal development, risk factors and resilience factors that may influence communication development and information regarding where to find a professional were central to a tool for parents on the stimulation of communication skills in infants. These decisions concur with recommendations provided in other parent training tools (Banigan, 1998).

According to Table 5.8 the participants had certain preferences as to the way in which information should be presented. The group expressed a preference for the use of video clips (both with and without additional commentary) to be interspersed with slides. The video clips should feature a range of normally developing infants. This technique has been used successfully in other video tools (Bailey, 1998). Furthermore, the group highlighted the importance of items on the slides appearing one by one. In contrast to the use of stills and written text the use of *live* video is often favoured as it is more interactive in nature (Cybercollege, 2002).

During the third focus group discussion the participants expressed certain preferences regarding the type of information that should be included in a discussion on the stimulation of communication skills in infants. The consensus was that a range of different techniques should be discussed and demonstrated in natural situations. The parents felt the emphasis should be on daily routines such as bathing, dressing and eating. This concurs with the presentation methods used in other tools (Cochlear, 2002a).

The fact that parents expressed specific needs and preferences regarding the topics, the format and the content denotes current trends in adult learning, which lean towards involving adults in the decision making process regarding the presentation of materials as well as the selection of information to include (Carlson, 1997). The fact that participants in the focus group discussions could discuss options and come to a consensus on the issues, reflects the abilities of adult learners to share their thoughts

and ideas, to solve problems and to consider the perspectives of others (Cruikshank, Bainer & Metcalf, 1995; Wright *et al.*, 1997).

The participants in the second focus group expressed feelings about such a tool being made available to parents. These included feelings of being empowered, informed, equipped and self-confident. This confirms that the development of the tool accurately addresses a specific need within the community. Information provided to adults, which denotes their needs and interests, is more likely to result in transformative learning (Carlson, 1997). Because the tool which was developed during this study reflects the needs and interests of adults within the community it should promote adult learning and have an important impact in the community.

The researcher used the results of these focus group discussions as the underpinnings for writing the video script. The topics addressed in the tool concur with the opinions that were aired in the first focus group discussion of Phase Two. The discussion of these selected topics is based on an in-depth review of the literature on infant communication development (as discussed in Chapter Two) and the prevention of communication delays (as discussed in Chapter Three).

The video footage, slides and voice-over also reflect the preferences regarding format that were expressed in the second and third discussions of Phase Two, namely the use of video clips, slides and a voice-over to illustrate the discussions with a range of stimulation techniques demonstrated in natural surroundings with normally developing infants.

Although the video script, which was written with the goal of being user-friendly in mind, does not give theoretical references at the end of each statement the references are included in the transcript for the sake of transparency.

Figure 5.12 illustrates the flow and content of the video script.

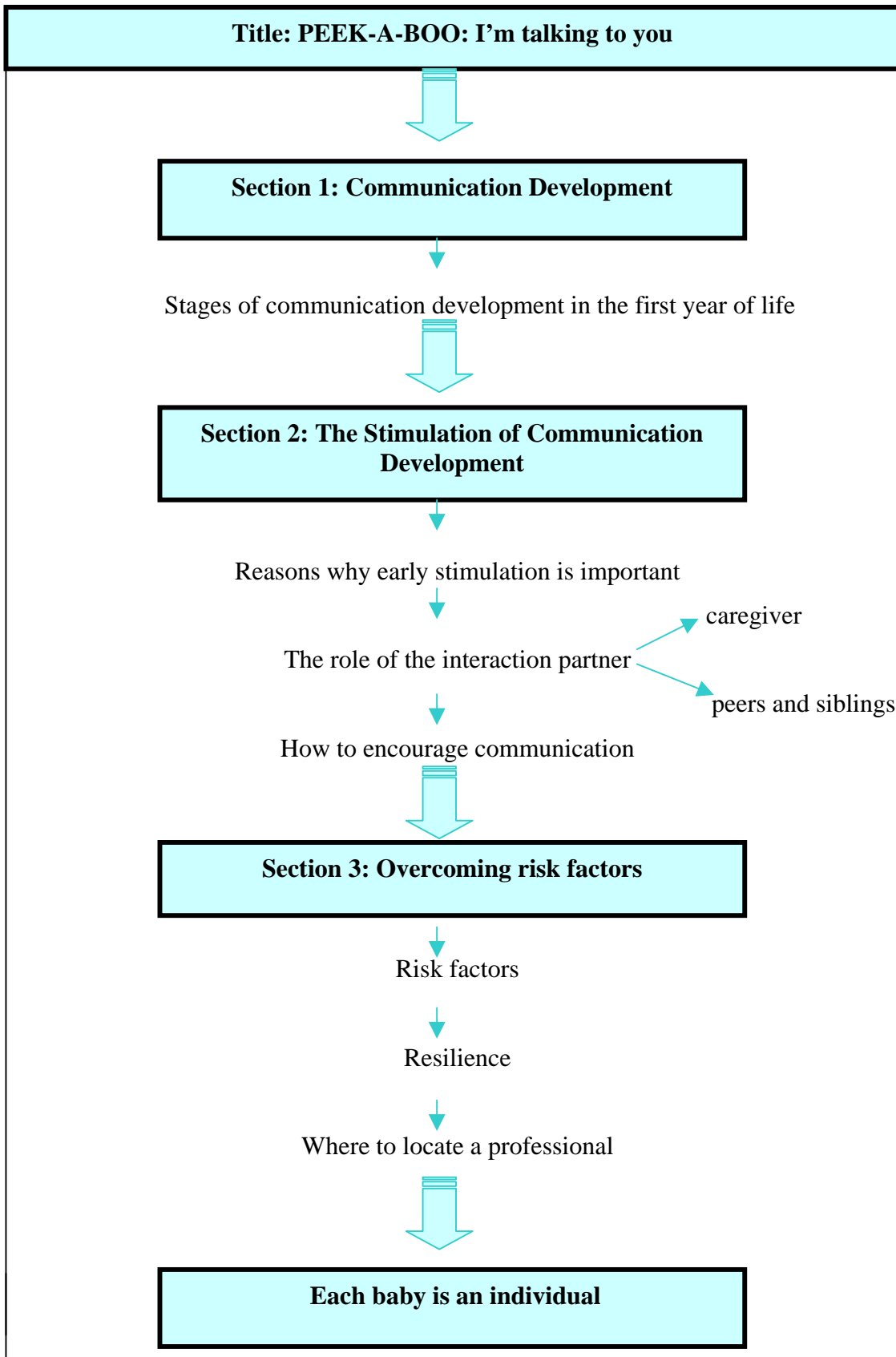


Figure 5.12 A schematic presentation of the video script

Table 5.9 provides the entire video script with literature references. A CD ROM copy of the video is included in a pocket on the front cover. The script not only describes the soundtrack and voice-over but also the video clips and slides. The term *baby* and not *infant*, as is commonly used in literature on development, is used most frequently in the video script as this is the term that South African parents most often use in everyday conversation.

Table 5.9 The video script

SCENE NUMBERS and References	AUDIO: Soundtrack and voice-over	VISUAL: Video clips, graphics and special effects
1	music playing	<p><i>Slide of video title:</i> PEEK-A-BOO: I'm talking to you</p> <p><i>Slide:</i> Communication Development in Infants</p>
2	<p>voice-over sound comes in</p> <p>This video looks at infant communication development. Section one describes the stages of communication development. The second section discusses the stimulation of infant communication skills. Finally section three looks at risk and resilience factors that may influence the development of communication in infants as well as where to locate a professional.</p>	<p><i>Slides:</i> Section One: COMMUNICATION DEVELOPMENT</p> <p>Section Two: THE STIMULATION OF COMMUNICATION DEVELOPMENT</p> <p>Section Three: RISK AND RESILIENCE</p>
3	<p>This first section describes the stages of communication development in the first year of life.</p> <p>music fades</p>	<p><i>Slides:</i> SECTION ONE</p> <p>COMMUNICATION DEVELOPMENT IN THE FIRST YEAR OF LIFE</p>
4	<p>There is little in life that is as gratifying to a new mother as being able to change her baby's hungry cries to sighs, smiles and gurgles of contentment! There is a sense of satisfaction that can be found in correctly interpreting your baby's cries and vocalisations.</p> <p>music fades out</p>	<p>Videos: Crying baby; Mother feeding a baby; close up of baby's contented expression.</p>

Table 5.9 Continued

SCENE NUMBERS and References	AUDIO: Soundtrack and voice-over	VISUAL: Video clips, graphics and special effects
<i>6 continued</i>	<p>Both of you will actively take part in these playful exchanges and your baby will learn the ground rules of communication.</p> <p>In the first phase babies also develop improved voice control. Initially babies will produce sounds or cries of delight or displeasure. Several weeks later they may start to produce throaty gooing. By a few months of age babies are producing predominantly vowel sounds but also some consonant-vowel combinations like <i>gaaa</i> or <i>ngaaa</i>. By the middle of the first phase babies will produce long strings of vowels and consonants. It is also at this time that vocal play develops. Your baby will enjoy taking turns making a variety of vocalisations. Towards the end of the first phase babies can use their voices to show pleasure or displeasure by varying volume, pitch and rate. You will enjoy hearing your baby squeal for joy.</p> <p>After the first 6 to eight months of life your baby will develop better cognitive skills for predicting the outcome of behaviour and will therefore be able to take part in a two-way interaction. The second stage of communication development lasts from approximately eight to twelve months. It is during this stage of development that your baby will start applying intentional communication skills. These involve the deliberate pursuit of a goal. This means that your baby must firstly be aware of a goal, like a ball that is out of reach, and must secondly make a plan to reach it. The development of intentional communication certainly doesn't mean that your baby will use words! Babies use gestures and vocalisations to interact intentionally before they use words.</p>	

Table 5.9 Continued

SCENE NUMBERS and References	AUDIO: Soundtrack and voice-over	VISUAL: Video clips, graphics and special effects
6 <i>continued</i>	<p>Gestures develop naturally. Babies will point at things they want or at things that they want you to talk about. They also tug on your clothes to get your attention, wave hello or good-bye or push away food they don't like. These are all examples of naturally occurring gestures that your baby uses to communicate an intentional message. Gestures, facial expressions, body posture and eye contact are important interaction skills that your baby is mastering at this stage of development. Babies will get their way without saying a word! Later on your baby will even try several different ways of getting the same message across! The feelings of success and joy that your baby experiences when you have understood and responded to a gesture, will serve as encouragement to communicate more and more.</p> <p>Besides developing social interaction skills babies also develop an increasing comprehension of language. During the second phase babies start responding to their names and the word <i>no</i>. Later on your baby may even nod <i>yes</i> or shake his head for <i>no</i>. Your baby will also recognise certain familiar words such as <i>hot</i> or <i>so big</i>. Familiar words are associated with familiar contexts. Babies even understand simple instructions like <i>wave bye-bye now</i>. By eleven months babies respond to about half of the requests that parents make.</p> <p>It is also during this second phase that your baby will develop a large repertoire of sounds. In this phase babies are babbling a lot and it may sound as though they are trying to tell you something. Your baby may even try to imitate words when you speak! Amazingly, the sounds your baby makes already reflect the language spoken around her. At the end of the first year there is a gradual transition from the use of sounds and gestures to the use of words.</p>	

Table 5.9 Continued

SCENE NUMBERS and References	AUDIO: Soundtrack and voice-over	VISUAL: Video clips, graphics and special effects
7	<p>Section one described the stages of communication development in the first year of life. This discussion differentiated between pre-intentional and intentional communication and illustrated social interaction skills, the development of language comprehension as well as your baby's increasing repertoire of sounds and vocalisations.</p>	<p><i>Slides:</i> Communication Development:</p> <ul style="list-style-type: none"> • pre-intentional communication • intentional communication • social interaction • language comprehension • vocalisations <p><i>Slide:</i> End of Section One: Pause tape here</p>
8	<p>The following section discusses the stimulation of infant communication skills.</p>	<p><i>Slides:</i> SECTION TWO THE STIMULATION OF COMMUNICATION DEVELOPMENT</p>
<p>9</p> <p>(Rossetti, 2001; Hadley & Rice, 1991; Rice, Sell & Hadley, 1991; Warren & Reichle, 1992)</p> <p>(Wentzel, 1991; Lockwood, 1994; Rossetti, 2001; Catts, 1993)</p>	<p>Some parents may wonder why early stimulation is really important. The emotional wellbeing of babies and their communication abilities are intrinsically linked. Studies that compared babies with and without communication delays have proven that effective communication skills are crucial to the development of social skills. Delayed communication development is also related to increases in behavioural problems. Your baby may throw temper tantrums out of frustration at not being able to express feelings, needs and ideas.</p> <p>Communication development is not only an indication of your baby's current level of functioning but will also determine who your baby will become in the future. Early communication skills are an indication of future educational success. A child's communication skills will affect whether the child is ready to go to school at the appropriate age and will affect academic progress. It is therefore crucial to ensure good communication development from early on.</p>	<p><i>Slide:</i> Why is Early Stimulation so important?</p> <p><i>Video:</i> video clips of happy babies playing together</p> <p><i>Slides:</i> Highlighting keywords</p> <p><i>Video:</i> Change to shot of older children doing school related activities</p>

Table 5.9 Continued

SCENE NUMBERS and References	AUDIO: Soundtrack and voice-over	VISUAL: Video clips, graphics and special effects
<p>10 (Rossetti, 2001)</p> <p>(Newland, 2001; Howell, 2001; Rossetti, 2001)</p> <p>(Rossetti, 2001)</p>	<p>However, babies certainly can't develop communication skills on their own! You, as the interacting partner, play a crucial role in your baby's development of communication skills.</p> <p>You, as caregiver to your baby, have a vital role to fulfil in encouraging your baby to participate in communication.</p> <p>Your interactions with your baby will influence his speech, language, cognitive, emotional and social development! You can help him overcome communication difficulties and make him more resilient to risk factors!</p> <p>Your baby's friends and siblings also have an important role to play. Peer and sibling interaction is very important in communication development. Interactions with other babies will give your baby opportunities to practice age appropriate communication skills.</p>	<p><i>Video:</i> Parent and baby interacting</p> <p><i>Video:</i> Babies interacting with each other</p>
<p>11</p>	<p>Now that you are aware of the important role you have in enhancing your baby's communication development we will consider what you can do to encourage your baby to participate in communication.</p>	<p><i>Video:</i> Parent interacting with baby</p>
<p>12 (Owens, 2001; Johnson & Heinze, 1990; Parks, 1998 ; Manolson, 1992)</p>	<p>A number of different techniques are very effective to encourage communication development, namely: joint reference, games, routines, turn taking and repetition.</p>	<p><i>Slide:</i> Techniques to encourage interaction:</p> <ul style="list-style-type: none"> • joint reference • games • routines • turn taking • repetition <p>(items appear one by one)</p>
<p>13 (Rossetti, 2001; Owens, 2001; Manolson, 1992)</p>	<p>Joint reference means that you and your baby are communicating about the same thing. You can achieve this by following your baby's lead and being on your baby's level.</p>	<p><i>Slide:</i> Techniques to encourage interaction:</p> <ul style="list-style-type: none"> • joint reference

Table 5.9 Continued

SCENE NUMBERS and References	AUDIO: Soundtrack and voice-over	VISUAL: Video clips, graphics and special effects
13 <i>continued</i>	<p>Your baby leads you by showing interest. Take the time to enter into your baby's world and determine what interests her. By doing that, you will have lots of opportunities to give meaningful language examples.</p> <p>When talking about something, try to be on your baby's level. This does not only mean getting down on the ground with your baby. You also need to adapt the complexity level of your language model to suit your baby's abilities. Using short phrases is much more appropriate when talking to your baby than giving a continuous flow of adult commentary.</p>	<p><i>Video:</i> <i>Parent and baby interacting</i></p> <p><i>Video:</i> <i>Parent on baby's level</i></p>
<p>14 (Rossetti, 2001; Owens, 2001; Johnson & Heinze, 1990; Parks, 1998; Manolson, 1992; Lyytinen, Laakso, Poikkeus & Rita, 1999; Morrison, 2001).</p> <p>(Rossetti, 2001; Owens, 2001; Johnson & Heinze, 1990; Parks, 1998; Manolson, 1992)</p>	<p>Games are a fun and easy way to encourage communication development. In fact, there is a strong relationship between play and communication development. When you engage your baby in games like <i>peek-a-boo</i> or <i>I'm coming to get you</i> your baby learns to shift roles, take turns and co-ordinate signalling and acting. Your baby will develop such a sense of anticipation that you will probably see anxious gesturing and vocalising if the game is stopped prematurely!</p> <p>Interactive play is a valuable developmental tool because it is social by nature and fun, it teaches turn taking, encourages babies to respond, uses repetition and integrates multiple senses. Through play babies learn a variety of skills beyond those involved in communication, such as concentration, exploration, creativity, problem solving, perseverance, object manipulation and co-ordination.</p>	<p><i>Slide:</i> Techniques to encourage interaction:</p> <ul style="list-style-type: none"> • joint reference • games <p><i>Video:</i> <i>Parent and baby playing a game</i></p>

Table 5.9 Continued

SCENE NUMBERS and References	AUDIO: Soundtrack and voice-over	VISUAL: Video clips, graphics and special effects
<p>15 (Owens, 2001; Johnson & Heinze, 1990; Parks, 1998; Manolson, 1992)</p>	<p>Life is dynamic, complex and unpredictable! This makes it hard for your baby to know what you are communicating about. In contrast, routines such as bath time, mealtime and getting dressed provide predictable contexts, with a limited set of likely words and phrases and opportunity to use a lot of repetition. Try to use the same words and phrases each time you repeat a certain ritual. This way your baby will quickly become familiar with the language and will start to anticipate words.</p>	<p><i>Slide:</i> Techniques to encourage interaction:</p> <ul style="list-style-type: none"> • joint reference • games • routines <p><i>Video:</i> Parent dressing baby and using appropriate language</p>
<p>16 (Owens, 2001; Johnson & Heinze, 1990; Parks, 1998; Manolson, 1992)</p>	<p>Turn taking is an important skill, which lays foundations for the give and take of information in mature conversations. Sequences that revolve around turn taking are a useful tool to encouraging participation in communication.</p> <p>At this early stage of your baby's life turn taking involves making contact with each other in a vocal or a non-vocal manner and then pausing to allow the other person an opportunity to respond and thus participate in the exchange.</p> <p>A young baby may take a vocal turn by cooing or babbling and then stopping to allow the partner a turn. In a similar fashion your baby can take a non-vocal turn by kicking or squirming and then lying still to indicate that he is waiting for a response. Initially babies are not good at vocal turn taking as they are so excited by their new-found voices that they tend to produce strings of coos without allowing the other person much opportunity to respond. Before your baby says the first word there will be a large amount of vocal play. Vocal play gives babies an opportunity to practice oral movements and co-ordinated breathing and muscle movements. These pre-speech sounds are, therefore, important precursors to speech.</p>	<p><i>Slide:</i> Techniques to encourage interaction:</p> <ul style="list-style-type: none"> • joint reference • games • routines • turn taking <p><i>Slide:</i> <i>Turn taking dividing into vocal turn taking and non vocal turn taking (items come up one by one)</i></p> <p><i>Video:</i> Background video of mom and baby chatting to each other.</p>

Table 5.9 Continued

SCENE NUMBERS and References	AUDIO: Soundtrack and voice-over	VISUAL: Video clips, graphics and special effects
16 <i>continued</i>	<p>The very young baby, who is not yet imitating vocalisations, can be introduced to this game by the parent imitating the baby's sounds and waiting for a response with an enthusiastic, expectant expression. You can encourage turn taking by playing games where your baby has to take a turn in order for the game to continue and by having mini conversations with her.</p> <p>In this clip you can see how the baby is expected to give some indication that she wants the game to continue by taking either a vocal or a non-vocal turn.</p> <p>Can you see how simply vocalising back at your baby practices vocal turn taking?</p>	<p><i>Video:</i> Mother asking "more?" before continuing.</p> <p><i>Video:</i> Mother and baby cooing back and forth</p>
17 (Owens, 2001; Johnson & Heinze, 1990; Parks, 1998; Manolson, 1992)	<p>Using repetitive sequences is another way in which you can ensure that your baby develops language comprehension and gets an opportunity to participate. Compose a short set of phrases to repeat each time you get into the car, enter a shop or change a diaper. This way your baby will quickly become familiar with the language and will start to anticipate words.</p> <p>Another natural source of repetitive language is songs and rhymes. They also create a sense of anticipation and babies are eager to take part, as they grow increasingly familiar with the rhyme. This baby is obviously enjoying the rhyme and cannot help but participate!</p> <p>When developing language comprehension, it is also important to repeat familiar words in other contexts so that the meaning can be expanded and generalised rather than being associated with only one situation. Here we see how the words <i>roll</i> and <i>up</i> are used in a variety of contexts to give the baby a broader understanding of the words.</p>	<p><i>Slide:</i> Techniques to encourage interaction:</p> <ul style="list-style-type: none"> • joint reference • games • routines • turn taking • repetition <p><i>Video:</i> Video of dressing baby</p> <p><i>Videos:</i> Video clips of nursery rhymes</p> <p><i>Video clips:</i> "roll" on a ball "roll over" on the floor "up" while flying "pick up" from the floor "legs up"</p> <p><i>Slide:</i> End of Section Two: Pause tape here</p>

Table 5.9 Continued

SCENE NUMBERS and References	AUDIO: Soundtrack and voice-over	VISUAL: Video clips, graphics and special effects
18	This section discussed the stimulation of infant communication skills by looking at the importance of early stimulation, the role of the interaction partner as well as techniques to encourage an infant to communicate. Specific techniques were demonstrated, namely: the use of joint reference, games, routines, turn taking and repetition.	<i>Slides:</i> Flashback to previous slides
19	The following section, section three, looks at risk and resilience factors that may influence the development of communication in infants and gives information about locating a communication professional.	<i>Slides:</i> SECTION THREE RISK AND RESILIENCE FACTORS WHERE TO LOCATE A PROFESSIONAL
20 (Rossetti, 2001) (Rossetti, 2001; Warren & Reichle, 1992) (Rossetti, 2001)	<p>What do you do if, in spite of your best efforts, your baby's communication does not seem to be developing well? There are certain warning signs and risk factors that may indicate the need to consult a professional.</p> <p>Risk factors can be divided into two groups, namely established risk factors and at-risk factors that may suggest a baby is at risk for developing communication problems. Established risk factors are proven causes for communication problems.</p> <p>Some of the established risk factors are:</p> <ul style="list-style-type: none"> • Genetic disorders such as Down syndrome • Neurological disorders such as Cerebral Palsy • Sensory disorders such as hearing loss and • Severe infectious diseases such as paediatric AIDS or meningitis <p>In contrast to the established risk factors that warn us to expect a communication delay, there are also factors that merely put babies at risk for the development of problems.</p>	<p><i>Slides:</i> Show keywords</p> <p><i>Slide:</i> Risk factors dividing into established risk and at risk (items appear one by one on the slide)</p> <p><i>Slide:</i> Established Risk:</p> <ul style="list-style-type: none"> • Genetic disorders • Neurological disorders • Sensory disorders • Severe infectious diseases <p>(items appear one by one)</p> <p><i>Video:</i> Show at-risk baby in intensive care</p> <p><i>Slide:</i> Risk factors dividing into established risk and at risk (items highlighted one by one on the slide)</p>

Table 5.9 Continued

SCENE NUMBERS and References	AUDIO: Soundtrack and voice-over	VISUAL: Video clips, graphics and special effects
<p>20 <i>continued</i></p> <p>(Rossetti, 2001; Warren & Reichle, 1992)</p> <p>(Mauer, 1999)</p> <p>(Warren & Reichle, 1992; Arvedson, 2000; Mauer, 1999)</p>	<p>These babies are at risk because certain factors may have interfered with their ability to interact with the environment.</p> <p>The following are some of the at-risk factors which suggest that the baby may be at risk of experiencing developmental delays in communication:</p> <ul style="list-style-type: none"> • Severe prenatal complications • Severe postnatal complications • An oxygen shortage before, during or after birth • A very small or underweight baby. Your doctor can tell you if this is the case. • Repeated ear infections • An acute family crisis • Chronically disturbed family interaction • A parent with mental illness, alcohol or drug dependency <p>Another factor that places babies at risk for developing communication problems is sensory integration dysfunction. Babies with sensory integration dysfunction struggle to process and apply tactile information. These babies are either overly sensitive to certain types of touch stimuli or they struggle to receive information through the sense of touch. These babies are likely to have problems learning fine motor skills such as picking up small objects or may have problems producing certain sounds because they do not adequately process information from touch receptors in the mouth and face.</p> <p>Oral-motor problems may also place babies at risk. Oral motor problems may result in feeding problems, ranging from aspiration, reflux and vomiting to a dislike of certain textures and temperatures. These problems are the result of inadequate muscle tone and poor co-ordination of the muscles in the mouth and face. If you frequently struggle to feed your baby you should seek professional advice.</p>	<p><i>Slide:</i></p> <p>Babies at Risk:</p> <ul style="list-style-type: none"> • Severe prenatal complications • Severe postnatal complications • An oxygen shortage before, during or after birth • If the baby is very small or underweight. • Repeated ear infections • An acute family crisis • Chronically disturbed family interaction • A parent with mental illness or alcohol or drug dependency <p>(items appear one by one)</p> <p>Babies at Risk:</p> <ul style="list-style-type: none"> • Severe prenatal complications • Severe postnatal complications • An oxygen shortage before, during or after birth • If the baby is very small or underweight. • Repeated ear infections • An acute family crisis • Chronically disturbed family interaction • A parent with mental illness or alcohol or drug dependency • sensory integration dysfunction • oral motor problems <p>(items appear one by one)</p>

Table 5.9 Continued

SCENE NUMBERS and References	AUDIO: Soundtrack and voice-over	VISUAL: Video clips, graphics and special effects
<p>20 <i>continued</i></p> <p>(Owens, 2001)</p>	<p>Oral-motor problems can also influence voice quality, pitch or volume and the clarity of speech. However, there are also certain aspects of speech, which do not warrant concern at this age. If your baby starts to say words but mispronounces certain sounds or even replaces them with completely different sounds you should not be alarmed! These types of errors are part of early speech development and are not a concern at this young age.</p>	<p><i>Video:</i> Babies playing with tactile toys like sand</p> <p><i>Video:</i> Baby feeding</p>
<p>21</p> <p>(Werner, 2000; Strauss, 2001; Wissing & Van Eeden, 2002; Prizant & Wetherby, 1990)</p>	<p>You might have identified some of these risk factors in your baby’s birth history; however, it is not to say that a risk factor necessarily means that your baby will have a communication problem! Babies are very resilient! They have the ability to overcome risks and develop normally, especially if you are there to guide them.</p> <p>Research has indicated that your baby is more likely to overcome risks and less likely to develop problems if any of the following characteristics are present:</p> <ul style="list-style-type: none"> • If you, as the parent, have a positive attitude in life • If you, as the parent, focus on your baby’s strengths rather than weaknesses • If you, as the parent, are a competent and educated care-giver • If you, as a family, have a lot of social support • If your baby has a close bond with you and has supportive grandparents • If your baby is happy and optimistic • If your baby is emotionally stable and not frequently in distress • If your baby is active, alert and social • If your baby has an easy, engaging temperament and • If you foster feelings of competence in your baby. 	<p><i>Slide:</i> Babies are very resilient!</p> <p><i>Slide:</i> Characteristics that indicate resilience:</p> <ul style="list-style-type: none"> • parents’ positive attitude • parents focus on strengths • parent is competent and educated • social support • close bond with parents and supportive grandparents • baby is happy and optimistic • baby is emotionally stable and not in distress • baby is active, alert and social • baby has an easy, engaging temperament • foster feelings of competence

Table 5.9 Continued

SCENE NUMBERS and References	AUDIO: Soundtrack and voice-over	VISUAL: Video clips, graphics and special effects
21 <i>continued</i>	Clearly you can help your baby be more resilient by focussing on communication successes. By being sensitive to your baby's needs and responding appropriately when your baby communicates you will help your baby feel like a competent communicator. This will go a long way in helping your baby overcome risk factors.	<i>Video:</i> Happy infants interacting
22	If you think you have reason to be concerned about the influence of certain risk factors on your baby's communication development you can contact a professional.	<i>Video:</i> Baby playing
23	Where does one go for professional help with communication problems? The Health Professions Council of South Africa can help you find a speech therapist in your area. They have a list of all the registered therapists and those who belong to the South African Speech Language and Hearing Association. Alternatively you can contact the South African Speech, Language and Hearing Association directly.	<i>Slide:</i> <i>Health Professions Council of South Africa</i> <i>Tel: (012) 338 9448</i> <i>Fax: (012) 328 4862</i> <i>web:</i> <i>www.hpcsa.co.za</i> <i>Slide:</i> For more information call your local university or hospital <i>S.A.S.L.H.A.</i> <i>Tel: (011) 726 5014</i> <i>web: www.saslha.org.za</i>
24	This final section, section three, looked at risk and resilience factors that may influence the development of communication in infants. The question of where to locate a professional was also addressed.	<i>Slides:</i> Highlight key words
25	music slowly starts to build up Always keep in mind that babies are individuals and develop at their own pace. Your baby and your friend's baby probably won't say their first word at the same age. Not even twins do! Appreciate your baby's own unique strengths and enjoy this special, first year together.	<i>Video:</i> Various happy shots.
26	music keeps playing	<i>Slides:</i> Role credits

5.4 RESULTS OF PHASE THREE: THE VALIDATION OF THE TOOL

In order to determine whether the tool for parents on the stimulation of communication skills in infants meets the needs of the community for whom it was developed, further focus group discussions were held with three different groups of parents from the community (Mc Conkey, 2002a). These focus group discussions were aimed at determining whether parents from the community were satisfied with the format and content of the tool and whether enhancements needed to be made to the tool. These steps constitute the validation of the stimulation tool that was developed in Phase Three.

5.4.1 The Format of the Stimulation Tool

Three groups of participants took part in focus group discussions that were held during Phase Three. The main purpose of these focus group discussions was to provide members of the community with the opportunity to evaluate the tool, thereby ensuring that the tool would meet their requirements.

The first aim of these discussions was to *determine parents' general perceptions about the tool as well as whether the format of the tool met the needs of the parents* in the community. In all three of the focus group discussions the members were relaxed and comfortable. The participants all contributed and the discussions were lively. This may be due to the fact that the participants were familiar with each other (Bloor *et al.*, 2001). The discussions each lasted approximately 45 minutes. Complete transcriptions of the focus group discussions are included in Appendices I, J and K.

The results are presented in Table 5.10. All themes that were identified in the analysis are listed in the table. As in previous focus group discussions the number of participants who expressed the same idea is noted as this gives important information as to whether it was an individual opinion or a group consensus.

Table 5.10 Focus group discussions aimed at validating the format of the tool

CATEGORY (n=16)	DESCRIPTION
<p>Results of focus group one (n=5)</p>	<p>In the first discussion the following opinions were expressed regarding <u>general perceptions</u> of the video:</p> <ul style="list-style-type: none"> • All the participants were pleased with the use of a range of different infants of different ages and with a range of communication skills. • One participant expressed that she was able to identify with the babies that were selected. • Furthermore it was regarded as a positive that the video scenes were shot in real home situations and not in a clinical setting (one participant). <p>In the first discussion the following opinions were expressed regarding <u>the format</u> of the video:</p> <ul style="list-style-type: none"> • All the participants were pleased with the format and felt that first-time mothers and fathers would find it useful. • All the participants agreed that the video did not talk down to parents but rather that it was directed at educated parents. • Two participants expressed that they approved of the way that video clips were combined with slides. • One participant expressed that she enjoyed the real-life footage. • One participant applauded the way that the footage was divided into sections that covered different age groups.
<p>Results of focus group two (n=6)</p>	<p>In the second discussion the following opinions were expressed regarding <u>general perceptions</u> of the video:</p> <ul style="list-style-type: none"> • Participants felt that the information provided was very reassuring (ALL participants). • Once again it was expressed that first-time mothers would find the video very useful (one participant). • One participant expressed that the video gave a large amount of information. • The video was seen as well-rounded (one participant). • Two participants enjoyed seeing the babies' reactions. <p>In the second discussion the following opinions were expressed regarding <u>the format</u> of the video:</p> <ul style="list-style-type: none"> • All the participants welcomed the information on how to develop different communication skills. • The use of video clips in combination with slides helped participants understand and remember the information (two participants). • The voice-over was judged to be clear and easy to listen to (two participants). • One participant applauded the use of the summaries at the end of each section. • All the participants approved of the sequence of topics in the video. • Furthermore, all the participants were positive about the indications on the tape of where the video tape could be paused. • All the participants were pleased with the captions that were inserted in some of the video clips.

Table 5.10 Continued

CATEGORY (n=16)	DESCRIPTION
Results of focus group three (n=5)	<p>In the third discussion the following opinions were expressed regarding <u>general perceptions</u> of the video:</p> <ul style="list-style-type: none"> • Participants found the video interesting (two participants). • Some participants expressed that they wished to have had access to such a tool sooner (two participants). • All of the participants felt that the video was needed as communication development is important to all parents. <p>In the third discussion the following opinions were expressed regarding <u>the format</u> of the video:</p> <ul style="list-style-type: none"> • One participant felt she could identify with the mothers in the video. • Participants approved of the combination of slides and video clips (ALL participants). • Participants also approved the quality of the voice-over (4 participants). • Two participants expressed their enjoyment of the music at the start and end of the video. • All the participants were in agreement that the video was an ideal length as it provided a wealth of information without being too exhausting. • The sequence of topics that were covered in the video was received positively (ALL participants). • All the participants found the different sections helpful as well as the indications of where the tape could be paused. • All the participants welcomed the use of captions in certain video clips.

As displayed in Table 5.10, the general perceptions of the participants in the first focus group discussion were positive. The participants were pleased with the range of different infants featured in the video. Individuals also expressed that they could identify with the infants and realistic home-life situations. The results of the second focus group discussion, as displayed in Table 5.10, indicated that these participants also had positive perceptions regarding the video. This group agreed that they found the video very reassuring. Participants described the video as useful, informative and well-rounded. Furthermore, seeing the babies' reactions on the video was also experienced positively. The participants in the second focus group of Phase Three were also satisfied with the format of the video and aspects such as information on how to stimulate communication, the sequence of topics in the video, guidelines on where to pause the video as well as the use of captions were met with positive reactions from the entire group. Other positive points included the combination of video clips with slides, the clarity of the voice-over and the summaries at the end of each section.

During the third focus group discussion the general perceptions of the participants were positive as they agreed that communication development is important. Participants found the video interesting and would have liked to have had access to such a tool sooner. The participants of this focus group were also satisfied with the format of the video. Once again the combination of video clips and slides, the quality of the voice-over, the sequence of topics in the video, indicators on where to pause the video and the use of captions were met with positive response. Participants also expressed satisfaction with aspects such as the music, the mothers chosen for the video and the length of the video.

There were no negative comments regarding the format of the tool. These positive aspects that were highlighted reflect issues which were stressed by the participants in the second focus group discussion in Phase Two. The strong positive reaction in Phase Three therefore increases the credibility of the findings of Phase Two, indicating that the format of the tool was a trustworthy reflection of community preferences.

These results, regarding the use of different infants, home-life situations, real infant responses, the combination of presentation techniques, captions and indicators of where to pause the tape also concur with recommendations made in consultations with other professionals with experience in developing training videos for parents (Mc Conkey, 2002a; Cochlear 2002b). Consultations with other professionals therefore increased the quality of the resulting tool. The researcher's reliance on input from experienced professionals may, consequently, have resulted in a positive reaction from the focus group participants in Phase Three.

The focus group participants were satisfied with the format of the video as the way in which information was presented was respectful of parents' prior knowledge and the video could be used by both mothers and fathers. The fact that these specific parent participants judged the format favourably may be a reflection of the fact that decisions regarding the development of the video were based on an extensive opinion poll in Phase One as well as repeated consultations with other parent participants during Phase Two.

The findings of the three focus group discussions that were held during Phase Three reflect that parents from the target community were positive about the video that was developed in this study. Parents had positive comments regarding both the qualitative and quantitative aspects of the video.

Aspects such as being able to identify with the infants and parents in the video, the range of infants used and being able to see the infants reactions, the use of real-life footage, the clarity of the voice-over, the music that was used, the applicability of the video for both mothers and fathers and the fact that the video showed respect for parents' prior knowledge were viewed favourably by the focus group participants. These findings concur with previous research findings that parents indicated the importance of professionals demonstrating respect by not talking down to parents (Goetz, 1982). The ability of this video tool to provide information to parents without making the parents feel as though they were being patronised, is important. This may have been achieved by the fact that parents from the community were involved in the development process.

Furthermore, previous research has emphasised the importance of involving fathers in their children's communication development (Hadadian & Merbler, 1995). It is, therefore, positive that the video was evaluated as being applicable and useful for both mothers and fathers. The fact that the video is judged in Phase Three as relevant for fathers too, is likely to be a reflection of the involvement of 67 fathers in the needs analysis during Phase One.

Aspects such as the provision of information on how to stimulate communication, the sequence of topics in the video, indicators for where to pause the video, the use of captions, the combination of video clips with slides, the summaries at the end of each section as well as the length of the video were also met with positive reactions in the focus group discussions. The fact that these aspects of the video were judged as appropriate by parents may be a reflection of the fact that the researcher specifically obtained input from the community on issues relating to the format of the video during the development phase (see Table 5.8). The fact that the community judged the tool to be appropriate, in terms of its format, reflects the fact that the needs of the

community have been met successfully. Furthermore, the length of the 27 minute video was judged favourably. This concurs with previous research which found a video tool (of 31 minutes) on communication development and stimulation to be an effective parent training tool (Banigan, 1998).

It is concluded that the format of the video tool that was developed in Phase Two with the help of parents from the community, was judged by further focus group discussions in Phase Three to be appropriate in terms of both qualitative and quantitative aspects. The participants highlighted specific positives such as the respect for the prior knowledge of parents, the applicability of the tool for fathers and the length of the video. These evaluations are especially encouraging, as they are mentioned in existing research to be important criteria to parents.

5.4.2 The Content of the Stimulation Tool

The second aim of the focus group discussions during Phase Three was to determine whether the *topics that were included in the tool met the needs of the parents in the community*. The results are presented in Table 5.11.

Table 5.11 Focus group discussions aimed at validating the content of the tool

CATEGORY (n=16)	DESCRIPTION
Results of focus group one (n=5)	<p>In the first discussion the following opinions were expressed regarding the topics that were included in the tool:</p> <ul style="list-style-type: none"> • All the participants welcomed the information on stimulation techniques. • Furthermore, all the participants felt that the information on normal development resulted in decreased stress. • The whole group also agreed on the importance of information on risk factors. • The topics in the video were regarded as very interesting (two participants). • The topics were also described as informative (one participant).

Table 5.11 Continued

CATEGORY (n=16)	DESCRIPTION
Results of focus group two (n=6)	<p>In the second discussion the following opinions were expressed regarding the topics that were included in the tool:</p> <ul style="list-style-type: none"> • All the topics in the video were judged to be relevant. • All the participants expressed that they were pleased with the information on stimulation techniques. • The information that was provided on stimulation techniques felt <i>very natural</i> (one participant). • All the topics were judged to be very informative (2 participants). • The topics that are addressed made participants feel more equipped (two participants).
Results of focus group three (n=5)	<p>In the third discussion the following opinions were expressed regarding the topics that were included in the tool:</p> <ul style="list-style-type: none"> • The whole group agreed that all the topics were interesting and had to be included in order for the video to make sense. • Furthermore, all the participants expressed that they were pleased with the information on stimulation techniques.

As displayed in Table 5.11, the participants in the first focus group discussion indicated that all the topics were interesting and informative. The information on stimulation techniques was welcomed, the information on normal development resulted in decreased stress and the information on risk factors was described as important.

The results of the second focus group discussion, as displayed in Table 5.11, indicated that the participants felt all the topics were informative and helped them feel more equipped. Participants enjoyed the information on stimulation techniques, which was described as being very natural.

During the third focus group discussion the participants expressed that all the topics were interesting and had to be included in order for the video to make sense. The participants also expressed that they were pleased with the information on stimulation techniques.

The findings of the three focus group discussions that were held during Phase Three reflect that parents from the community were positive about the content of the video. Once again there were no negative comments. All the topics that are addressed in the video, namely, information on normal development, stimulation techniques, factors relating to risk and resilience as well as where to locate a professional were judged to be relevant by the participants of all three the focus groups.

These findings may be indicative of the fact that the content of the tool is based on strong theoretical underpinnings, opinions expressed in open- and closed-set questions by a large group of survey participants, the opinions expressed by participants during repeated focus group discussions as well as consultations with different international professionals who are involved in developing training videos. Banigan and Mervis (in Banigan, 1998) have indicated that parents were satisfied with a tool that provided information on normal development, demonstrations of strategies as well as a review of the information at the end of each section.

It appears that the value of applied research, namely in adequately meeting the needs of specific communities (de Vos, 1998), applies to the content of the tool. Although the content of this tool may not necessarily have been relevant to other communities it would appear to be a true reflection of the needs and desires of the community for whom the tool was developed.

It is concluded that the content of the video tool that was developed in Phase Two, with the help of parents from the community, was judged favourably by further focus group discussions in Phase Three. These findings concur with previous research findings.

5.4.3 Possible Enhancements of the Tool

The third aim of these discussions was to *determine whether any further enhancements* should be made to the tool. The results are presented in Table 5.12.

Table 5.12 Focus group discussions aimed at determining possible enhancements of the tool

CATEGORY (n=16)	DESCRIPTION
Results of focus group one (n=5)	<p>In the first discussion the following opinions were expressed regarding the necessity for any changes:</p> <ul style="list-style-type: none"> • The whole group felt that the contents of the video could be kept as is. • The group was in agreement that all essential topics were covered. • One participant felt that a video cover, that listed all of the topics covered in the tool, could be included. • One participant also expressed that it was good to know what to work on and how to do it. <p>In the first discussion the following opinions were expressed regarding feelings on receiving the video:</p> <ul style="list-style-type: none"> • All the participants expressed that they would have liked to receive this video before having children or even between children. • The whole group agreed that they would have benefited from receiving the information before they had had children. <p>The participants used the following words to describe how they felt about the video:</p> <ul style="list-style-type: none"> • encouraged (one participant) • empowered (two participants) • less stressed (two participants) • informative (all participants) • practical (all participants)
Results of focus group two (n=6)	<p>In the second discussion the following opinions were expressed regarding the necessity for any changes:</p> <ul style="list-style-type: none"> • The whole group was in agreement that no changes were necessary and that they felt the video should be kept as is. <p>In the second discussion the following opinions were expressed regarding feelings on the video:</p> <ul style="list-style-type: none"> • All the participants expressed that they would have liked to have received this video before or shortly after having children, as part of the hospital package. • The video was found to be useful (one participant). • One participant expressed that the video is useful for parents as well as professionals working with parents.

Table 5.12 Continued

CATEGORY (n=16)	DESCRIPTION
Results of focus group two (n=6) continued	<p>The participants used the following words to describe how they felt about the video:</p> <ul style="list-style-type: none"> • empowered (two participants) • less stressed (two participants) • informative (three participants) • practical (one participant) • user friendly (two participants) • educating (two participants) • on mothers' level (one participant)
Results of focus group three (n=5)	<p>In the third discussion the following opinions were expressed regarding the necessity for any changes:</p> <ul style="list-style-type: none"> • Once again the whole group was in agreement that no changes were necessary and that they felt the video should be kept as is. <p>In the third discussion the following feelings were expressed regarding the video:</p> <ul style="list-style-type: none"> • The whole group agreed that they would have wanted the video before or shortly after the birth of their baby. • Furthermore, all the participants agreed that the video is useful for new mothers and fathers. <p>The participants used the following words to describe how they felt about the video:</p> <ul style="list-style-type: none"> • empowered (all participants) • excited (two participants) • encouraged (two participants) • in control (two participants) • less worried (two participants) • informed (two participants) • practical (one participant) • educated (one participant) • down to earth (one participant)

As displayed in Table 5.12, the participants in the first focus group agreed that the video could be kept as is. However, one participant felt that a video cover, that listed all of the topics covered in the tool, should be included. This recommendation will be considered for the packaging of the tool, which will be addressed in the future. Furthermore all the participants expressed that they would have liked to have received this video before having children or even between their children as they would have benefited from the information. The participants used the following words to describe

the video and their feelings about it: *informative, practical, empowered, less stressed and encouraged.*

The results of the second focus group discussion, as displayed in Table 5.12, indicated that the whole group was in agreement that no changes were necessary. The participants expressed that they would have liked to have received this video before or shortly after having children, as part of the hospital package. The participants used the following words to describe the video and how they felt about it: *informative, empowered, less stressed, practical, user friendly, educating and on the parents' level.*

During the third focus group discussion the participants were once again in agreement that no changes were necessary and that they felt the video should be kept as is. Furthermore, the whole group agreed that they also would have wanted the video before or shortly after the birth of their baby. The participants used the following words to describe the video and their feelings about it: *empowered, excited, encouraged, in control, less worried, informed, educated, practical and down to earth.*

The findings of the three focus group discussions during Phase Three reflect that parents from the community felt the video met their needs and that no changes or enhancements were required. This finding is probably the result of the high level of involvement of participants in every phase of the research, culminating in a tool that meets their requirements. The only comment that could be viewed as negative or an indication that the video was incomplete was the suggestion by a participant that a video cover which listed all the topics in the video was needed.

This overwhelming positive response to the video in terms of format, content as well as the need for further enhancements may be attributed to one of several explanations. One possible explanation is the level of community involvement in each phase of the research. The value of applied research lies there-in that communities can be involved in identifying and meeting real needs (de Vos, 1998). The fact that the participants in Phase Three felt that no further enhancements were necessary to the tool may, therefore, be due to the fact that the tool was made in order to meet the needs which

were identified by the community, according to the specifications that were endorsed by the community and using techniques which were selected by the community.

Another factor which may have contributed to the repeated positive response by the community is the researcher's own positive attitude towards the research process as well as towards the resulting tool. The conceptual framework which was selected during this research, namely a constructivist perspective, recognises the researcher's own subjective involvement in the research process and the eventual outcome there-of (Denzin & Lincoln, 2000). Evidence of the researcher's positive attitude towards the research is seen in the content of the research diary (see Appendix L).

A further aspect which may have resulted in a more positive response to the video was the strong focus on resilience in the tool. Trends in various fields reflect a focus on positive aspects that promote optimal functioning rather than focusing on negative aspects that impede functioning (Gilligan, 2001; Werner, 2000; Strauss, 2001; Wissing & van Eeden, 2002; Klass, 1999). The focus on resilience within the tool was not only conveyed in the voice over but also in the visuals. The tool featured many scenes with footage of happy, optimally developing infants and their parents. This may have resulted in a more optimistic, positive reaction in the participants, resulting in a positive evaluation of the tool. Highlighting strengths during the evaluation of a tool or programme concurs with the strengths-based underpinnings of family-centred services, and is perceived as *more empowering to parents* than focusing on negative aspects of a tool or programme (Green *et al.*, 1996).

It is crucial for all professionals who are involved in an infant's life to empower the parents to take an active, central role in every decision (Guralnick, 1997). During Phase Three parent participants repeatedly expressed feelings of empowerment, of being encouraged, reduced stress and a sense of being educated and informed. The video was consistently described as practical. The finding that parents judged the tool to be empowering is important when considering the findings of previous research studies. Parents have indicated concern that professionals do not prioritise the empowerment of family members to be involved in their child's communication development (Kaiser & Gray, 1993). Furthermore, parents also expressed concern that professionals do not respect the needs of families (Kaiser & Gray, 1993). Current

trends in family-centred service provision, however, emphasise the importance of empowering families during the decision-making process, involving parents in every aspect of service provision and respecting the needs, preferences and cultural differences between families (Guralnick, 1997; Musick & Stott, 2000; Klein & Gilkerson, 2000; Garcia Coll & Magnuson, 2000). This research aimed, therefore, to involve parents from the community in every step of the study. The study aimed to determine, in each phase, the needs and preferences of the community, ensuring that the resulting tool is judged to be empowering to parents from the target community.

Furthermore, parents from all three the focus group discussions expressed that they would have liked to be presented with the tool before or shortly after the birth of their children. The finding that parents desire access to information and resources concurs with earlier findings which indicated that parents have a need for available information and resources (Hadadian & Merbler, 1995). This may indicate a universal need amongst all parents for information.

It is concluded that the video tool was accepted with approval by participants from the community. The parents felt that the video was appropriate as it is and did not need any changes in order to make it more acceptable. The overwhelming positive reaction and perception that all parents would benefit from such a tool emphasise the myriad of possible uses for the tool both by families in their homes as well as by professionals in the training of parents and the prevention of communication disorders. Not only does the tool meet the needs and preferences of a community but it is also reflects the valuable inputs of many different professions making it a valuable tool for professionals. The main aim of this study was to develop a tool for parents of a specific South African community for the stimulation of communication skills in infant, that is valid in terms of content and is judged by parents to be practical and empowering. The results discussed in this chapter clearly indicate that the aim has been achieved.

5.5 CONCLUSION

Three research phases were conducted in order to determine the needs within a specific community, to develop a tool with the assistance of community members that

would meet those needs and to evaluate the tool in order to determine whether the tool adhered to the community's requirements. The survey and focus group discussions that were held during phase one identified a need for a tool on the stimulation of communication skills in infants to be developed and made available. The results indicated that the most popular format was a video, which was supported by the preference for the inclusion of practical demonstrations. Furthermore different topics that were of interest to the participants were identified. Focus group discussions in Phase Two were used to refine these topics and determine the final content of the tool. The evaluation of the tool during Phase Three indicated that the video tool was accepted with approval by participants from the community indicating that the aim of the research was achieved.

5.6 SUMMARY

This chapter displayed, described, analysed and discussed the results of the research as they relate to the main aim of the research, namely, to develop 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. The results of the study were divided into three sections according to the phases of the research, namely, the results of the needs analysis, the results of the compilation of the tool as well as the results of the validation of the tool. It is concluded that the tool which was developed in Phase Two, according to the needs that were expressed in Phase One, meets the needs of the community for whom it was developed. The implications of these results are discussed in Chapter Six.