

4 RESEARCH DESIGN AND METHODOLOGY

This chapter presents the research design and methodologies used in the research project on which this thesis is based. The research aims are provided first, followed by the research approach and design. This section supports the argument for a naturalistic design with features of the participatory action research approach, introduced in the previous chapter, which comprises a combination of data collection methods. The researcher's role during the execution of the project is subsequently discussed. This is followed by discussions of the sampling method, recruitment, and ethical considerations, and a description of the participants. The discussion is concluded with a description of the evaluation tools, the program aimed at facilitating change, and the processes and strategies utilised during this project.

4.1 RESEARCH AIMS

This study was conducted in order to document the perceptions of occupational therapy managers regarding changes that are occurring in occupational therapy services within the field of early intervention in South Australia.

4.2 RESEARCH APPROACH, DESIGN AND QUESTIONS

Elements of the participatory action research design – a particular naturalistic design – were utilised due to the design's unique principles of participation in the study and its focus on facilitating action as a result of the study. The naturalistic approach ensured that the phenomenon could be studied holistically within specific contexts, and that the life experiences from the perspective of those in the field could be captured. (DePoy & Gitlin, 1998). In addition, the structure of a pre-post test design was utilised to measure the impact of the program on the perceptions of participants.

The study was conducted by means of Phases 1–3 over a six-month period in order to answer the following main research question:

Table 5 What are the primary changes observed in managers' perceptions regarding early intervention service delivery after exposure to a program orientated towards facilitating change?

Phases of the change?	Research Sub-questions	Research Instruments of each Phase
Phase 1: Pre-intervention phase	What are the current service delivery models employed by early intervention services?	Pre-intervention Questionnaire

In order to address this question, sub-questions were considered during each phase of the project. Phases 1 to 3, and their corresponding sub-questions and research instruments, are illustrated in Table 5. Phase 1 focused on the current status of service delivery by means of the pre-intervention questionnaire and the first online focus group. Four online focus groups were utilised during Phase 2 in order to introduce a program aimed at facilitating change.

Data collected during this phase aimed at determining managers' approaches to change during the implementation of the program. Short questionnaires were administered after each focus group discussion. The cycle ended with an evaluation phase, during which the post-intervention questionnaire was administered, and follow-up interviews were conducted. This occurred at eight and 16 weeks after the completion of the program respectively. This phase aimed at answering the main question about the study and obtaining an understanding of what managers perceived to be the principles of best practice in the field of early intervention.

4.3 THE ROLE OF THE RESEARCHER

The role of the researcher played a significant part in the project, and required specific consideration during the execution of the project. As prescribed by the participatory action research design, the researcher forms an integral part of the research. She facilitated and resourced the online discussions and was a co-participant in the discussions, while maintaining objectivity in order to study the phenomenon without bias.

Table 5 The Phases of the Project with corresponding Research Sub-questions and the Research Instruments

Phases of the Project	Research Sub-questions	Research Instruments of each Phase
Phase 1: Pre-intervention Phase	What are the current service delivery models employed by early intervention services?	Pre-intervention Questionnaire
	What is the context of current service delivery?	Focus Group 1
	What are the perceptions of managers regarding their current service delivery models?	Short Questionnaire
	What are the managers' approaches to change?	
Phase 2: Intervention Phase	What are managers' approaches to change during a program orientated towards facilitating change?	Focus groups 2–5 Short Questionnaires
Phase 3: Evaluation Phase	What are the primary changes observed in managers' perceptions regarding early intervention service delivery after exposure to a program orientated towards facilitating change?	Post-intervention Questionnaire
	What are managers' perceptions of the principles for best practice in early intervention?	Interviews

In order to undertake this role effectively, the researcher had to establish her credibility amongst colleagues to study the phenomenon. Being new to Australia and not working in a paid capacity in the field of early intervention required some strategic networking beforehand not only with the Occupational Therapy Association and the University of South Australia, but particularly with the participants, in order to gain their trust and acceptance as a colleague. An initial meeting between the researcher and each participant occurred in order to ensure an understanding of what the project entailed; to facilitate acceptance and participation in its goals and methods, as well as a cooperative attitude (Barton-Cunningham, 1993). It was very important to establish a participatory and positive attitude towards the study from the outset. This ensured maximum response rates, and a commitment to participate in all the phases of the project, and contributed to the participants taking ownership of the project. All these aspects were essential given the heavy time commitments of participants and the lengthy timeframe of the project. The cooperation, active

participation and involvement of the participants formed the core of the process of facilitating change.

4.4 SAMPLING METHOD

A purposive sampling method was used according to which participants were purposively selected for the appropriate knowledge and experience regarding the early intervention service delivery that they possessed. Seventeen occupational therapy managers of early intervention services were invited to participate in the study. These included all the known services in South Australia – covering both metropolitan and country areas. The services were selected from various service directories. Fourteen organisations provided their consent and participated in the study.

For the purposes of this study, occupational therapy managers were seen as occupational therapists in senior roles with service coordination responsibilities. These managers' responsibilities might include areas such as personnel management (including the management of schedules and caseloads), resource and financial management, and the management and administration of record keeping – regarding both intervention details and statistical information (World Federation of Occupational Therapists, 1998). These functions of occupational therapy managers made them eligible to be selected to provide information regarding these areas. Equally important was the emphasis that the literature placed on the manager's essential role in the facilitation of change, and this added to the rationale for the selection of managers as participants.

The organisational structures of the participating services and early intervention teams varied significantly, with some having complex and non-traditional management structures within overlapping disciplines. In some instances, the participating therapist was serving as both manager and clinical therapist and in another, the management function was temporarily being attended to by the clinical therapist. To accommodate certain structures in some of the services, the manager and clinical occupational therapist participated in the study

together. Where a sole therapist served as clinician and also managed the paediatric services provided, this therapist was included. It was reasoned that this therapist has some management duties relating to the organisation of services, would be able to provide information on the services provided, and could play a role in facilitating change in the services provided.

4.5 RECRUITMENT OF PARTICIPANTS

A letter of invitation to participate in the study, stating the aim and use of the study and providing information about the study, was sent to the occupational therapy managers. A consent form was completed and returned to the researcher (see Appendix A). By completing the consent form, participants indicated their willingness to participate in all the phases of the project. The information sheet clearly indicated the different phases involved and the importance for participants to be involved in all the phases (see Appendix B). Prospective participants were made aware of their voluntary participation and they were in no way coerced into participation. Furthermore, they were made aware that they were free to withdraw from the study at any stage.

4.6 ETHICAL CONSIDERATIONS

Ethical approval and permission to conduct the study was obtained from the University of South Australia. All possible steps were taken to ensure an ethically sound study.

Participants were provided with the choice of either maintaining confidentiality or providing permission to use the names of their employers on the website and in the publication of results. One manager indicated the preference to maintain confidentiality. Consequently, measures were put into place to ensure the participants' anonymity. The identifying information on the completed questionnaires was removed once received; only first names were used during the focus group discussions (due to the context-specific nature of the topics under discussion, it was essential that participants knew who the other

participants were) and all identifying information was removed when the results were discussed and reported.

4.7 DESCRIPTIONS OF PARTICIPANTS AND AREAS COVERED

Fourteen participants participated in the study. The characteristics of the participating services and the participants are provided in Table 6 (in no specific order). The majority of the participating services (13) were government organisations, with one being a non-government organisation. Organisations included services from the Adelaide metropolitan area, as well as rural and remote areas (that is, non-metropolitan areas) in South Australia. The majority of services cover both urban and rural areas (64%), which include services to towns in regional areas. Metropolitan areas were covered by the second largest proportion (50%) of the participants and include city areas. Remote areas were covered by the third largest number of participants (36%) and include areas of low density, which are geographically isolated.

The four most prevalent client groups of the services were, in order of prevalence: development delays and scholastic difficulties (all services); cognitive / intellectual impairment (8 of the 14 services); neurological impairment (7 of the 14 services); and physical impairment (7 of the 14 services). Participants had more than one choice when answering this question.

Table 6 Characteristics of Participating Services and Participant



Participant Number	Type of Service	Client Ages	Geographical Area covered by Service	Management Role of Participant
1	Health Care	From birth, including school-aged children	Non-metropolitan areas	Sole clinical occupational therapist in paediatrics, manages aspects of service delivery
2	Disability Service	0–18 years	Metropolitan and non-metropolitan areas	Manager of occupational therapy services
3	Health Care	From birth, including school-aged children	Metropolitan and non-metropolitan areas	Manager of occupational therapy services and paediatric occupational therapist both participating
4	Health Care	From birth, including school-aged children	Metropolitan and non-metropolitan areas	Senior occupational therapist with coordinating responsibilities
5	Health Care	From birth, including school-aged children	Metropolitan areas	Manager of occupational therapy services
6	Health Care	0–6 years	Metropolitan areas	Manager of occupational therapy services and paediatric occupational therapist both participating
7	Health Care	From birth, including school-aged children	Metropolitan and non-metropolitan areas	Sole clinical occupational therapist in paediatrics, manages aspects of service delivery
8	Disability Service	6 years onwards, may include adolescents and adults at risk	Metropolitan areas	Sole clinical occupational therapist in paediatrics, manages aspects of service delivery
9	Health Care	From birth, including school-aged children	Non-metropolitan areas	Manager of occupational therapy services and paediatric occupational therapist both participating
10	Health Care	From birth, including school-aged children	Non-metropolitan areas	Sole clinical occupational therapist in paediatrics, manages aspects of service delivery
11	Health Care	From birth, including school-aged children	Non-metropolitan areas	Manager of occupational therapy services and paediatric occupational therapist both participating
12	Disability Service	0–6 years	Metropolitan areas	Senior occupational therapist with coordinating responsibilities
13	Health Care	0–3 years	Non-metropolitan areas	Acting manager for Allied Health Staff and clinical occupational therapist
14	Health Care	0–6 years	Non-metropolitan areas	Sole clinical occupational therapist in paediatrics, manages aspects of service delivery

4.8 DESCRIPTIONS OF EVALUATION TOOLS AND THE PROGRAM AIMED AT FACILITATING CHANGE

4.8.1 Pre- and Post Program Evaluation Tools

Walkin (1990) recommended the evaluation of a training program in order to assess the effect of a course of study, or a training program. This author suggests the use of a criterion test both before and after training. This test, according to the author, should be based on the desired outcomes of the training program. This view is also supported by The Australian Early Intervention Network for Mental Health in Young People (2000) which conducted a study on the early intervention services in mental health.

4.8.1.1 *The Questionnaire: Primary Considerations in the Development of the Questionnaire*

A questionnaire was chosen as preferred research tool for the evaluation of the perceptions of managers both before and after participating in the program aimed at facilitating change. The pre-intervention questionnaire involved the collection of clear, unbiased factual data regarding the problem, which is essential as a basis for the process of change (Cope, 1981). It served as the baseline for understanding the current situation (Cope, 1981) and the need for change (Barton-Cunningham, 1993). In addition, practical considerations included that the participants were spread over a large geographical area, making the use of this tool appropriate.

The same questionnaire was administered both before and after the program, except for part A of the questionnaire, consisting mostly of organisation-specific questions, which was omitted in the post-intervention questionnaire.

During the development of the questions, attention was given to literature guidelines for questionnaire development (Fink, 1995a; Fink, 1995b; Borgue & Fielder, 1995; Abramson, 1990; Neutens & Rubinson, 1997) and examples of other similar questionnaires.

Careful consideration was given to the development of the questionnaire, which included: the layout of questions; clearly defining operational definitions; ensuring that questions were clear and unambiguous; and the use of cross referencing for some questions. These measures ensured minimal variations in the data obtained. Consideration was given to the questionnaire design to ensure that all aspects were sufficiently covered. As many questions as possible were included in the questionnaire to cover the topic adequately and an exhaustive range of response categories was provided. These measures ensured that the questionnaire had a high content validity. By ensuring that all the questions were relevant and by using appropriate language and terminology, the face validity of the questionnaire was ensured. Definitions of terminology were included to avoid misunderstandings.

Table 7 provides a detailed layout of the motivation for the inclusion of each question and Appendix C provides the final pre-intervention questionnaire.

The draft questionnaire was reviewed by a statistician and paediatric occupational therapist. A pilot test, which involved one paediatric occupational therapist and one occupational therapist in a managerial position, was executed. The pilot test and peer review of the questionnaire ensured that the research instruments were appropriate and maximised the consensual validity of the questionnaire. Appendix D provides a detailed layout of the changes made to the questionnaire as a result of the pilot test. The pilot test included a trial for the use of the planned procedures when completing the questionnaire as well as the use of the data analysis methods. Changes were made, where required, and the final questionnaire was developed.

4.8.1.2 Development of the Follow-up Interviews

The aims of the follow-up interviews were to provide further qualitative information on the longer-term changes in the perceptions of managers. In addition, it served to strengthen the data gathered during the administration of the pre-intervention questionnaire and the focus

group discussions by repeating certain critical questions in the questionnaire and providing the opportunity for qualitative data collection and in-depth discussion during the interviews.

The interviews were semi-structured since questions were developed using a standard format, which was adapted to each organisation according to the information that had been provided on the questionnaires and during the focus group discussions. Questions were developed to further discuss each organisation's context and processes of change. In addition, questions were developed to facilitate discussion that would elicit the pre-set indicators (refer this chapter, Table 12 and Table 13).

The first interview served as a pilot test, with no changes made to the wording of questions or the procedures. Table 8 illustrates the basic format of the interviews, the reasons for the inclusion of each question, and examples of how the questions were applied to participants' contexts.

4.8.2 Development of a Program aimed at facilitating Change

Phase 2 included online focus group discussions. Focus group discussions employ guided discussion to generate a rich understanding of participants' experiences and beliefs (Morgan, 1998), and of perceptions related to a defined area of interest (Krueger, 1994). The rationale for utilising this medium was provided in Chapter 3, Focus Groups.

4.8.2.1 *Online Focus Groups*

The focus group discussions were conducted by means of five online discussions. Online focus groups were utilised for their qualities of making discussion convenient at a time and place suitable for participants from across South Australia. The online focus group discussions occurred in the form of computer conference sessions. The duration of each of these conferences was one week. This meant that participants could enter the discussion rooms anytime during the week to participate in the discussion.

Table 7 Considerations regarding the Development of Questions included in the Questionnaire



Questionnaire Category	Reason for Inclusion	Examples of Questions
Description of the participating organisations.	To provide descriptive and contextual information regarding the participating organisations, as discussed in Chapter 2 (refer Figure 1).	Please indicate the approximate range in kilometres covered by your department's service: Between 5 and 15 kilometres; Between 15 and 30 kilometres; Between 30 and 50 kilometres; Between 50 and 100 kilometres; More than 100 kilometres.
Description of the services delivered.	To provide descriptive and contextual information regarding the services delivered, as discussed in Chapter 2 (refer Figure 1).	Please indicate your department's main area of practice: Physical impairment; Cognitive / intellectual impairment; Psychiatric impairment; Development delays and scholastic difficulties; Neurological impairment; Medical / surgical; Medico-Legal; Other, please specify.
Description of management and the management practices utilised by the participating organisations.	To provide descriptive information related to management, management training, styles of management and management practices utilised, as discussed in Chapter 2 (refer Figure 1) and Chapter 3, The Process of Change.	Does your department function according to a strategic and / or business plan? Yes; No; Unsure.
Description of the type of service delivery models currently employed.	To provide information regarding current service delivery models in practice, as discussed in Chapter 2 (refer Figure 1) and Table 2.	Please indicate which of the following service delivery models your department employs: (Please see definitions provided). Consultation; monitoring; direct, one-to-one; direct, group; multi-disciplinary; interdisciplinary; trans-disciplinary; Case management; Other, please specify.
Description of service delivery issues.	To provide information on perceptions related to service delivery issues.	Do you feel that the current venue/s used by your organisation are effective and adequate for occupational therapy service delivery? Yes; No; Unsure.
Consideration to the use of strategies.	To provide information on perceptions related to consideration of the use of strategies to address issues, as discussed in Chapter 2, Factors Related to the Profession of Occupational Therapy.	Please indicate whether you would consider the use of any of the following strategies in the future: (Please see definitions provided) personnel substitution; therapy assistants; multi-skilling of support staff; multi-skilling of therapists. Yes; No; Unsure.
Perceptions regarding changes in service delivery models.	To determine perceptions regarding the need for change and foreseen difficulties in facilitating change.	Do you perceive a need for change in the service delivery models of your department? Yes; No; Unsure.

Table 8 Interview Questions and Reasons for the Inclusion of Questions



Topic Covered	Reason for Inclusion	Questions asked
Usefulness of discussion groups.	<p>To determine usefulness and relevance of discussion groups for each participant.</p> <p>To identify context-specific issues for each participant.</p> <p>To elicit pre-set indicators.</p>	<p>It has been two months since our discussion groups, can you tell me a bit about your feelings regarding how useful the discussion groups were for you?</p>
Perception regarding the need for change a) If no: Perception regarding what is working well.	<p>To elicit pre-set indicators.</p>	<p>You have indicated in the questionnaire that you do not perceive a need for change in the way you deliver services – Could you explain what is working well and why you want it to continue?</p>
Perception regarding the need for change b) If yes: Plans for change or changes implemented.	<p>To elicit pre-set indicators.</p>	<p>You have indicated in the questionnaire that you perceive a need for change in the way you deliver services: Could you tell me about the plans you have for change or the changes you may already have implemented?</p> <p>You have indicated that you are considering a multi-discipline Maroondah approach, could you tell me about your plans?</p>
c) Factors that have brought on changes.	<p>To identify the context-specific issues for each participant.</p> <p>To determine whether the discussion groups played a role in facilitating change.</p>	<p>Could you tell me about the events / factors which have brought on these changes?</p> <p>You have mentioned that you have moved from being a sole practitioner working with schools to a trans-disciplinary approach – can you tell me about the events / factors which have brought on these changes?</p>
d) The effects of the changes.	<p>To describe the context in which changes are occurring as well as the positive effects and the barriers to change.</p>	<p>What have the effects been of these changes? Have you experienced positive effects of the changes? You have indicated during the focus groups that your organisation supports innovation and improvement...</p> <p>Have you experienced barriers to these changes? You have indicated the varied nature of your caseload...</p>

Table 8 Continued

Topic Covered	Reason for Inclusion	Questions asked
<p>Broader plans and changes ahead for services.</p>	<p>To describe broader context of services.</p> <p>To elicit pre-set indicators.</p>	<p>Are there any broader future plans ahead for your service? This might include external and internal changes that you may be aware of.</p> <p>What is the vision for your service for the next three years? Are you in favour of this vision? How do you see your service fitting in with this vision?</p>
<p>Other significant issues related to project or service delivery.</p>	<p>To provide the opportunity to raise any issues which have not been captured in the previous phases of the project.</p> <p>To provide the opportunity for more in-depth discussion of an issue which may not have been possible in the online discussion groups.</p>	<p>Are there any significant issues or strategies regarding service delivery which have not been covered by this project and which you would like to talk about / emphasise?</p> <p>You mentioned a unified approach and some sort of communication network – can you elaborate more?</p>
<p>Perception regarding best practice.</p>	<p>To compare perception with current service delivery models used.</p> <p>To elicit pre-set indicators.</p> <p>To provide a descriptive framework of best practice principles across all organisations.</p>	<p>Could you tell me what are your perceptions regarding best practice in the delivery of paediatric services?</p>

4.8.2.2 *Preparations for a Program aimed at facilitating Change*

The literature suggests that sufficient time should be spent on the planning of focus groups (Morgan, 1998) and the preparation and orientation of participants (Milstead, 1998; Halstead, Hayes, Reising & Billings, 1995; Lewis & Kaas, 1998) in order to maximise the success of online group discussions. Participants were prepared by meeting with them beforehand; providing adequate information; ensuring that participants knew what was expected of them, and reminding them of their participation. Adequate written information regarding the use of an online discussion forum and the different phases involved in the project were provided (refer Appendices E and F). Specific measures included asking participants to log in at least a week before the discussion was to commence to post a greeting in order to sort out problems before the discussion commenced.

Further preparations included attending to the design and layout of the discussion. A simple book design was utilised, as described by McConnel (1994), where messages are posted one below the other, according to topics. This ensures that participants can find their way in the discussion and it minimises information overload. Steps were taken to ensure the availability of technical support as suggested by various authors (Akers, date unknown; Lewis & Kaas, 1998; Ryan, Carlton & Ali, 1999; Milstead, 1998).

Care was also taken to ensure that participants knew how to select topic headings carefully and how to respond to a new message. In addition, measures were included to remind participants to enter the discussion room and participate in the discussion. The researcher undertook this role, and reminded participants three times per week by updating them, via e-mail, about the progress made in the discussion.

Attention was given to the size and composition of each group, as suggested by Akers (date unknown) in order to ensure adequate discussion, while keeping the discussion neat and uncluttered. It was decided to include seven participants per discussion group, guided by

literature related to face-to-face focus groups (DePoy & Gitlin, 1998; Minichiello, Aroni, Timewell & Alexander, 1995) and limited literature related to online focus groups, for example that of Millstead (1998). Two groups, namely a country group and a metropolitan group, were formed to ensure that group members could perceive each other as fundamentally similar (Morgan, 1998).

Stimulus questions for each conference were planned beforehand. These questions were developed to facilitate discussion under each topic and keep the discussion room uncluttered and well structured. The questions were developed in collaboration with a colleague with experience in the use of online conferencing with distance education. Table 9 and Table 10 provide the stimulus questions and structure used for focus group 1, and focus groups 2–5 respectively.

4.8.2.3 *Content of a Program aimed at facilitating Change*

The first focus group provided feedback to participants on the information obtained from the questionnaire in order to provide further information regarding the results of the questionnaire (refer Chapter 5, Phase 1 for a discussion of the results obtained in this phase). The researcher posted a summary of the results on the website and stimulus questions were posted to facilitate the discussion. Table 9 depicts the content and structure of the first online focus group. During the first focus group discussion, topics were identified for the subsequent four focus group discussions. Five participants actively participated in identifying the topics, which were e-mailed to all participants after the online conference in order to confirm the topics. A further three participants responded to confirm the topics and no contraindications or further suggestions for topics were received.

Table 9 Content and Structure of Online Focus Group 1



Topic of Discussion	Stimulus Question as viewed in the Discussion Room	Reason for Inclusion
Result 1: Limited resources (refer to the following for the corresponding result of the questionnaire: Chapter 5: Pre-intervention Phase: Perceptions regarding resources available for service delivery).	<p>DESCRIPTION OF THE RESULT:</p> <p>“How do you account for these results? Why do services feel that they have inadequate resources? What are the reasons, consequences and context of this result? Please post your response in reply to this question.”</p>	<p>To facilitate discussion on describing the reasons, consequences and context of this result. To elicit pre-set indicators (refer this chapter, Table 14).</p>
Result 2: Understaffing (refer Chapter 5: Pre-intervention Phase: Staffing for the discussion regarding the corresponding result).	<p>PAST ACTIONS TAKEN:</p>	
Result 3: Long waiting lists and services to clients on waiting lists (refer Chapter 5: Pre-intervention Phase: Waiting lists, waiting time and services to clients on waiting lists).	<p>“From your knowledge and experience, what approaches have been taken to address the issue of inadequate resources in the past? What were the results of these approaches? Please post your response in reply to this question.”</p>	<p>To facilitate discussion around approaches and strategies taken in the past to address this issue. To elicit pre-set indicators (refer this chapter, Table 14).</p>
Result 4: Insufficient collaboration with school system (refer Chapter 5: Pre-intervention Phase for a discussion regarding the main venues of service delivery).	<p>POSSIBLE STRATEGIES:</p> <p>“What are your thoughts on things that can be done about inadequate resources? Please post your response in reply to this question.”</p>	<p>To facilitate discussion around possible future strategies and planning that can be put into place to address this issue. To elicit pre-set indicators (refer this chapter, Table 14).</p>
Identification of future topics.	<p>FUTURE TOPICS OF FOCUS GROUPS:</p> <p>“Based on our discussion and the results of the questionnaire, can you make suggestions regarding the topics of subsequent online information sessions?”</p>	<p>To identify the topics for focus groups 2–5.</p>
Other related discussion.	<p>OTHER DISCUSSION RELATED TO SERVICE DELIVERY MODELS:</p> <p>“Please post your other discussion related to the results and service delivery models in response to this message.”</p>	<p>To provide the opportunity to discuss issues not covered by the stimulus questions.</p>

Table 10 Content and Structure of Online Focus Groups 2-5

Structure of Online Focus Groups 2–5, as viewed in the Discussion Room		Reason for Inclusion
<p>QUESTIONS DIRECTED TO SPEAKER:</p> <p>Please insert your questions here which are directed towards the guest speaker.</p>	→	<p>Stimulus for questions to be directed by participants towards the speaker. To provide the opportunity for in-depth discussion of the topic with the speaker.</p>
<p>STRENGTHS OF THE MODEL:</p> <p>“What do you see as the possible strengths of this model?”</p> <p>WEAKNESSES OF THE MODEL:</p> <p>“What do you see as the possible weaknesses of this model?”</p> <p>APPLICATION OF MODEL:</p> <p>“What are your thoughts on the settings and situations in which this model can be applied?”</p>	} }	<p>Stimulus questions for discussion regarding the application of the model. To facilitate discussion regarding the topic and elicit pre-set indicators.</p>
<p>OTHER DISCUSSION:</p> <p>“Please insert other related discussion here in reply to this message.”</p>	→	<p>Stimulus for other discussion not covered in previous questions.</p>

Focus groups 2–5 were based on these topics and were facilitated by the researcher. These sessions were presented by guest speakers. Guest speakers were either suggested by participants as being clinicians with experience relating to the topic, or by the researcher, after investigation of suitably experienced speakers. Discussion around each topic was facilitated by the researcher. The focus group topics were: The Maroondah approach; NHS: Occupational Therapy Services for Children and Families; The Hanen Approach and Occupational Therapy in the School System. The content analyses are presented in Appendix O. Table 10 depicts the structure of online focus groups 2–5.

4.9 PROCEDURES UTILISED DURING THIS STUDY

4.9.1 Procedures for the Administration of the Questionnaires

The questionnaires were mailed to the participants with clear instructions on completing them, the required return date, and a self-addressed and paid envelope. In order to avoid the pitfalls of self-administered and mailed questionnaires, specific procedural steps were introduced. These pitfalls include low response rates and inaccurate or incomplete information (Neutens, & Rubinson, 1997; Abramson, 1990). To ensure a high response rate, care was taken to ensure participants' positive attitude towards and understanding of the study. Furthermore, since the study involved a small number of questionnaires, it was possible to follow up on incomplete or incorrect responses. Late returns of questionnaires were also followed up by reminders to return questionnaires. Subsequently, a response rate of 100% was achieved. The post-intervention questionnaire was re-administered eight weeks after the discussion groups were conducted. After a few reminders, a 100% response rate was achieved.

In order to ensure consistent measurements of information (Abramson, 1990; Fink, 1995), the following procedures were adhered to in relation to the measurement instrument: To ensure minimal variations due to the characteristic measured, namely service delivery models, questionnaires were completed within a period of two weeks from the date of mailing

the questionnaires. The post-intervention questionnaire was administered eight weeks after the last online discussion groups. This variation was, however, difficult to minimise due to the different contexts of each organisation and each one's current development phase in terms of change. To address this issue further, the contextual issues for each organisation were identified, described and considered during the analysis of results. In addition, the data collected via the other data collection methods during other phases of the project were considered in conjunction with the data obtained from the questionnaires. The possibility of the occurrence of the Hawthorne effect (whereby the participants' awareness of being tested might influence their responses to questions) was minimised by the initial meeting with the researcher as well as adequate information regarding the project, in order to ensure an understanding of the research aim, as well as a cooperative attitude.

The following procedures were adhered to, ensuring minimal variations due to the person collecting the data. In order to ensure that the researcher maintained objectivity, the researcher presented herself in a friendly, sincere and professional manner, and maintained a neutral viewpoint when she had contact with participants. At the beginning of the data collection period and during this period, the researcher strived, by means of "bracketing", to acknowledge her biases towards this topic by reflecting on it and writing it in a journal (Rose, Beeby & Parker, 1995). These statements were constantly referred to during the process of data collection and analysis. Appendix G provides the application of this technique during the study. Additionally, a journal was used during the planning and execution of the study to document decisions made concerning issues related to methodology and data analysis (Krefting, 1991). An extract of the journal related to decision making regarding the design of the study, is provided in Appendix H.

In order to ensure that the questionnaire measured what it was supposed to measure (Leedy, 1985), and measured it accurately (Fink, 1995b), the following measures were adhered to. To ensure criterion validity, indicators were identified by means of literature

against which the changes in participants' perceptions were measured. These indicators were based on the literature provided from change management and adult learning literature, as discussed in the previous chapter. A pilot test was conducted to test the questions and determine whether the required information was obtained. In addition, the findings of the questionnaire were compared with other recognised research findings.

4.9.2 Procedures for the Follow-up Interviews

The follow-up interviews were conducted telephonically 16 weeks after the last focus group discussion ended. The following steps were adhered to:

- Appointments were made with participants at a time that was suitable to them.
- Participants received the questions beforehand in order to prepare their responses to the questions, thereby ensuring that the data obtained was rich, accurate and complete.
- During the interviews participants were made aware that the interviews were being taped and each interview lasted between half an hour and one hour.
- In order to elicit in-depth discussion during the interviews, the guidelines provided by DePoy and Gitlin (1998) were used: participants were asked to provide examples of their statements and specific follow-up questions, as well as open-ended questions were asked. Clarification was obtained and follow-up questions were asked until a point of saturation – that is a point at which the researcher had obtained sufficient information for understanding the phenomenon.
- During the interviews, an opportunity was provided for participants to discuss service delivery issues that had not been covered by the stimulus questions and to provide their impressions of the coverage of the phenomenon.
- The participants were thanked for their participation.

When conducting the interviews, the researcher maintained objectivity and a neutral stance, by not providing personal viewpoints during the interviews. During this phase, as

well as the other phases of the project, a clear audit trail was kept by means of journal entries indicating the choices made and steps taken during the planning and execution of the project. A clear description of the procedures followed was documented to ensure that the study is reproducible.

4.9.3 Procedures pertaining to the Online Focus Groups

The following steps were adhered to:

- Participants were reminded of the start of each conference beforehand and received both the stimulus questions for discussion and the guest speakers' presentations by means of an e-mailed message.
- The researcher prepared the discussion room for discussion.
- When participants entered the discussion room, they could clearly distinguish the stimulus questions from other discussions.
- The guest speakers participated in the discussions during the week and answered questions raised by participants.
- The researcher facilitated discussion by participating daily and posting facilitatory questions and statements.
- Participants received e-mailed updates on the discussion.
- A short questionnaire (refer Appendices I and J) was e-mailed to participants after each online conference. It was developed to ensure the validity of the content of focus group discussions and to obtain additional feedback from participants on how they perceived the application of the particular model in their situations.

During the focus group discussions, the researcher maintained a neutral and objective stance and participated by providing unbiased information. The bracketing technique was used before the data collection phase started in order to identify the researcher's bias and

assumptions regarding the topic. These statements were referred to and kept in mind during the analysis of data obtained during this phase.

A record of the audit trail was kept by means of journal entries indicating the choices made and steps taken during the planning and execution of the focus group discussions. A clear description of the procedures followed was documented to ensure that the study is reproducible.

4.10 ANALYTICAL PROCEDURES UTILISED DURING THIS STUDY

4.10.1 Analysis of the Questionnaires

The following procedures were adhered to:

- All responses on the questionnaires were checked to ensure that all the sections were complete and clear. Where responses were unclear or incomplete, clarification was sought from the relevant participant.
- Data was transferred from the participants' response section of the questionnaire to the researcher's coding section, on the right-hand side of each page. This step was double checked to ensure accuracy.
- The data was transferred onto an Excel spreadsheet and double-checked to minimise data-entry errors.
- The data was transferred to the SPSS statistical software programme.

Due to the nature of the data – mostly nominal and ordinal – data analysis was by means of descriptive statistical procedures and aimed at describing the current service delivery issues. During the Evaluation Phase, the same procedures were followed for the post-intervention questionnaire and its results were compared with the results of the pre-intervention questionnaire.

4.10.2 Analysis of the Follow-up Interviews

Steps utilised during the analysis of the follow-up interviews are illustrated graphically in Table 11. Two sets of pre-set indicators were utilised to indicate changes in perceptions regarding change in practice (Set 1, refer Table 12), as well as perceptions related to service delivery models employed and principles of best practice (Set 2, refer Table 13).

The first set of indicators indicates evidence of changes in perceptions related to longer-term changes in practice. These indicators refer to the discussion in Chapter 3, The Process of Change, The Elements of Change and the Principles of Adult Learning. The second set of pre-set indicators was measured on three levels: evidence was sought of service delivery models used during Phase 3; evidence of recent changes made to particular service delivery models; and perceptions of best practice that relate to the particular service delivery models. These models relate to literature provided in Chapter 2 regarding current trends in service delivery.

A co-coder coded all the interviews independently from the researcher and in their entirety. The co-coder was a paediatric therapist with research experience. Minimal differences occurred between the analyses of the researcher and those of the co-coder and a 100% consensus was obtained. The bracketing technique was employed before the commencement of the data collection period, which served as reference when data was analysed and interpreted in order to minimise the researcher's subjective interpretation of data.

Table 11 Data Analysis Procedure employed for Follow-up Interviews

Researcher transcribed the interviews verbatim.	
Researcher Procedures: Analysis according to pre-set indicators: 2 sets of indicators (refer Table 12 and Table 15)	Co-coder Procedures: Analysis according to pre-set indicators: 2 sets of indicators (refer Table 12 and Table 15)
Steps in Analysis: For each of the sets of indicators the following steps were utilised respectively: Reading through the transcript and the indicators. Reading through the transcript line by line and allocating the number of the appropriate criterion in the right-hand column. Once finished, the interview was read again, as well as the marked criteria to ensure accuracy and completeness. Critical statements were bolded for follow up later on.	Steps in Analysis: Co-coder performed data-analyses procedures (both sets of indicators), all steps, concurrently with researcher. All transcripts were analysed in their entirety.
Comparison of data analyses done by researcher and co-coder. Discussion on codes that do not correspond. Consensus on variations and changes made to analyses, where appropriate.	

Table 12 Set 1 Pre-Set Indicators for Follow-up Interviews



Indicator	Literature Reference	Further Comments related to Analysis of this Indicator
Evidence of identification of the need for change in current service delivery models.	Cook (1995), Marzalek-Gaucher & Coffey (1991), Berger et al. (1980), Wright (1989), Vestal (1995)	Demonstrated in terminology, such as “more”, “increased”, “different”, and “other ways”. References made to the past, i.e. changes already made, or future directed.
Evidence of understanding the nature of the problem: insight into the deficiencies of current models of practice.	Wright (1989), Marzalek-Gaucher & Coffey (1991), Vestal (1995), Bair & Gray (1992), Peters & Tseng (1983), Gravett & Peterson (2000), Jacobs (1999), Knowles (1998)	It includes the identification of positive and negative aspects of current practice.
Evidence of critical reflection regarding current models.	Wright (1989), Marzalek-Gaucher & Coffey (1991), Vestal (1995), Bair & Gray (1992), Peters & Tseng (1983), Gravett & Peterson (2000), Jacobs (1999), Knowles (1998)	Demonstrated behaviour: identification of positive and /or negative aspects of models, together with critical reflection and interpretation.
Evidence of openness to new ideas / alternative strategies and models.	Gravett & Peterson (2000), Peters & Tseng (1983), Marzalek-Gaucher & Coffey (1991), Bailey et al. (1991), Lovelock (1992), Jacobs (1999)	Both evidenced in references to indicate openness to ideas provided by others, as well as participant’s own innovative ideas.
Evidence of insight into the need for strategic planning, including the need to analyse external and internal environments of services.	Marzalek-Gaucher & Coffey (1991), Shakleton & Gage (1995)	This includes references to the past or future.
Evidence of internalisation of information: indicate preferences (positive or negative) in terms of information presented.	Walkin (1990)	Statements such as “I like ...”, “I am in favour of ...” and “I support ...”
Evidence of internalisation of information: indicate the application of information.	Walkin (1990)	Application in specific contexts, but does not need to be application in participant’s own setting.
Evidence of internalisation of information: indicate the assessment of different views.	Gravett & Peterson (2000)	Discussion related to the analysis of different viewpoints.
Evidence of internalisation of information: identification of positive and / or negative aspects of the model.	Mezirow (1981)	Does not include the critical interpretation of these aspects.
Evidence of a decision made to negate current views regarding service delivery models.	Gravett & Peterson (2000)	Statements, for example “the need to move away from...”

Table 12 Continued

Indicator	Literature Reference	Further Comments related to Analysis of this Indicator
Evidence of a synthesis of old and new views.	Gravett & Peterson (2000)	Application of the model in a current setting where the model is modified to fit some aspects of the current model.
Evidence of commitment to change.	Vestal (1995), Bair & Gray (1992), Marzalek-Gaucher & Coffey (1991), Peters & Tseng (1983)	Enthusiasm regarding change; plans made regarding the application in own settings; strategic planning implemented. Terminology such as “more”, increase”, etc. Included only statements that are future orientated and indicate commitment to change due to the current information that was provided during the focus group discussions.
Actions taken / effort regarding implementation of changes in terms of: Workforce development.	Gravett & Peterson (2000), Marzalek-Gaucher & Coffey (1991), Cook (1995), The Australian Early Intervention Network for Mental Health in Young People (2000)	Statements related to recent plans made in line with work force development in order to implement changes.
Actions taken / effort regarding implementation of changes in terms of: Organisational or procedural development.	Gravett & Peterson (2000), Marzalek-Gaucher & Coffey (1991), Cook (1995), The Australian Early Intervention Network for Mental Health in Young People (2000)	Statements related to recent plans made in line with organisational or procedural development in order to implement change.
Actions taken / effort regarding implementation of changes in terms of: Resource allocation.	Gravett & Peterson (2000), Marzalek-Gaucher & Coffey (1991), Cook (1995), The Australian Early Intervention Network for Mental Health in Young People (2000)	Statements related to recent plans made in line with resource allocation development in order to implement change.
Actions taken / effort regarding implementation of changes in terms of: Development of partnerships and networks.	Gravett & Peterson (2000), Marzalek-Gaucher & Coffey (1991), Cook (1995), The Australian Early Intervention Network for Mental Health in Young People (2000)	Statements related to recent plans made in line with building of partnerships and networks in order to implement change.

Table 13 Set 2 Pre-Set Indicators for Follow-up Interviews



SERVICE DELIVERY MODELS CURRENTLY BEING USED	RECENT CHANGES MADE TO SERVICE DELIVERY MODELS / SERVICE DELIVERY MODELS CONSIDERED FOR CHANGE	PERCEPTIONS REGARDING BEST PRACTICE
<p>Comments related to analysis</p> <p>Focus is on the post-intervention period. Applicable to entire transcript.</p>	<p>Comments related to analysis</p> <p>Focus is on changes made to practice, i.e. within the last four months. Applicable to entire transcript.</p>	<p>Comments related to analysis</p> <p>Focus is on identifying principles of best practice. Applicable only to question related to best practice principles.</p>
<p>FOR EACH OF THE ABOVE CATEGORIES: IDENTIFY THE FOLLOWING MODELS</p>		
<p>Early Prevention and Client Education</p> <p>Client / Family-Centred Service Delivery</p> <p>Case Management Model</p> <p>Direct Service Delivery: One-to-one and Groups</p> <p>Collaborative Consultation Model</p> <p>Team Approaches: Multi-disciplinary; Inter-disciplinary and Trans-disciplinary with or without Multi-skilling of Team Members</p> <p>Use of Support Staff, Multi-skilling and Personnel Substitution (includes Teachers, School Support Officers, etc.)</p> <p>The Community-based Approach / Community Development</p> <p>Centre-based versus Home-based Services</p> <p>Tele-Rehab / Health</p> <p>Health Promotion / Primary Health Care</p> <p>Intervention in Functional Environments</p>		

4.10.3 Analysis of Data obtained from the Online Focus Groups

Data obtained from the first focus group further complemented the data obtained from the questionnaire regarding the current service delivery models used and issues pertaining to service delivery. During the discussions of the first focus group and focus groups 2–5, data was also obtained to determine the participants' general approach to change and whether learning and change in perceptions were occurring.

The focus group discussions were automatically saved and were printed out immediately after each online conference. Both a content analysis, as well as analysis according to pre-set indicators, occurred. The content analysis of the first focus group discussion (refer Appendix K) was performed according to the following steps, as adapted from Krueger (1994): Reading through the transcript; summarising the information on a separate sheet; looking for links and categories within the summary, and categorising these, if appropriate; reading through the original transcript again and comparing the summary with the transcript.

Summaries of the focus groups' discussions were e-mailed to the participants for their review and feedback and, where required, changes were subsequently made to the transcripts. The summary was e-mailed to the guest speaker and participants for their review and feedback and changes were subsequently made where required.

The analyses according to pre-set indicators were conducted by means of the same procedure as for the interviews: reading through all the indicators, reading the original transcript and looking for evidence of these indicators, marking the corresponding indicators in the right-hand margin of the transcript, reading the transcript again, and revising, where required. One entry on the website could have more than one statement providing evidence of indicators. The researcher, as well as an independent coder, analysed the transcripts in their entirety. The coded transcripts were compared after each independent analysis, variations in

coding were discussed, and changes were made, where appropriate. Minimal differences in coding occurred and a 100% consensus was achieved.

The pre-set indicators were discussed in Chapter 3 (The Principles of Organisational Change, the Elements of Change and the Principles of Adult Learning) and are illustrated in Table 14. The indicators for focus group 1 concentrated on the initial stages of the problem-solving process and related to information shared regarding current practice. Table 15 indicates the pre-set indicators for focus groups 2–5. The bracketing technique was used before the data collection phase started in order to identify the researcher’s bias and assumptions regarding the topic. These statements were referred to and kept in mind during data analysis and interpretation. In addition, the short questionnaires were analysed according to descriptive statistical procedures.

4.11 SUMMARY OF CHAPTER

This discussion of the data-analysis procedures concludes this chapter, which provides a detailed layout of the research design and methodologies utilised in this study. The chapter lays the foundation for the execution of the study and for the results that were obtained. The results and findings are discussed in the next chapter.

Indicator	Literature
Evidence of identification of problems related to current service delivery models	Booth & Gray (1997)
Evidence of identification of the need for change in current service delivery models	Booth et al. (1997)
Evidence of understanding the nature of the problem; insight into the development of current models of practice	Wright (1997), & Lewis (1997), & Lewis (1997)
Evidence of current reflections regarding current models	Wright (1997), & Lewis (1997)
Evidence of openness to new ideas, alternative strategies and models	Cherry & Pridemore (1997), & Marshall (1997)
Evidence of insight into the need for strategic planning including the need to analyse current and potential environments of services	Marshall (1997), & Marshall (1997)
Openness to learn, interest in information and activities given	Wright (1997)
Active participation in discussion	Wright (1997)

Table 14 Pre-set Indicators for Focus Group 1



Indicator	Literature Reference	Further Comments related to Analysis of this Indicator
Evidence of identification of problems related to current service delivery models.	Bair & Gray (1992)	Discussion related to specific problems.
Evidence of identification of the need for change in current service delivery models.	Cook (1995), Marzalek-Gaucher & Coffey (1991), Berger et al. (1980), Wright (1989), Vestal (1995)	Demonstrated in terminology such as “more”, “increased”, “different”, and “other ways”. References to the past included, i.e. changes already made or future directed.
Evidence of understanding the nature of the problem: insight into the deficiencies of current models of practice.	Wright (1989), Marzalek-Gaucher & Coffey (1991), Vestal (1995), Bair & Gray (1992), Peters & Tseng (1983), Gravett & Peterson (2000), Jacobs (1999), Knowles (1998)	It includes the identification of positive and negative aspects of current practice.
Evidence of critical reflection regarding current models.	Wright (1989), Marzalek-Gaucher & Coffey (1991), Vestal (1995), Bair & Gray (1992), Peters & Tseng (1983), Gravett & Peterson (2000), Jacobs (1999), Knowles (1998)	Demonstrated behaviour: identification of positive and / or negative aspects of models, together with critical reflection and interpretation.
Evidence of openness to new ideas / alternative strategies and models.	Gravett & Peterson (2000), Peters & Tseng (1983), Marzalek-Gaucher & Coffey (1991), Bailey et al. (1991), Lovelock (1992), Jacobs (1999)	Both evidenced in references to indicate openness to ideas provided by others, as well as participant’s own innovative ideas.
Evidence of insight into the need for strategic planning, including the need to analyse external and internal environments of services.	Marzalek-Gaucher & Coffey (1991), Shakleton & Gage (1995)	This includes references to the past or future.
Motivation to learn, interest in information and attention given.	Walkin (1990)	Statements made which indicate keenness to learn, that they are interested in the information and that they are paying attention to the information.
Active participation in discussion.	Walkin (1990)	Demonstrated behaviour: interaction between participants; reference to another message, the number of entries.

Table 15 Pre-set Indicators for Focus Groups 2–5

Indicator	Literature Reference	Further Comments related to Analysis of this Indicator
Evidence of critical reflection regarding current models.	Wright (1989), Marzalek-Gaucher & Coffey (1991), Vestal (1995), Bair & Gray (1992), Peters & Tseng (1983), Gravett & Peterson (2000), Jacobs (1999), Knowles (1998)	Demonstrated behaviour: identifying positive and / or negative aspects of models, together with critical reflection and interpretation.
Evidence of openness to new ideas / alternative strategies and models.	Gravett & Peterson (2000), Peters & Tseng (1983), Marzalek-Gaucher & Coffey (1991), Bailey et al. (1991), Lovelock (1992), Jacobs (1999)	Both evidenced in references to indicate openness to ideas provided by others, as well as the presentation of the participant's own innovative ideas.
Evidence of internalisation of information: indicate preferences (positive or negative) in terms of information presented.	Walkin (1990)	Statements such as “I like...”, “I am in favour of...” and “I support...”
Evidence of internalisation of information: indicate the application of information.	Walkin (1990)	Application in specific contexts, but does not need to be application in participant's own setting.
Evidence of internalisation of information: indicate the assessment of different views.	Gravett & Peterson (2000)	Discussion related to the analysis of different viewpoints.
Evidence of internalisation of information: identification of positive and / or negative aspects of the model.	Mezirow (1981)	Does not include the critical interpretation of these aspects.
Motivation to learn, interest in information and attention given.	Walkin (1990)	Includes specific questions directed at guest speaker.
Evidence of a decision made to negate current views regarding service delivery models.	Gravett & Peterson (2000)	Statements, for example “the need to move away from...”
Evidence of a synthesis of old and new views.	Gravett & Peterson (2000)	Application of the model in a current setting where the model is modified to fit some aspects of the current model.
Active participation in discussion.	Walkin (1990)	Demonstrated behaviour: interaction between participants; reference to another message; the number of entries.
Evidence of commitment to change.	Vestal (1995), Bair & Gray (1992), Marzalek-Gaucher & Coffey (1991), Peters & Tseng (1983)	Enthusiasm regarding change; plans made regarding the application in own settings; strategic planning implemented. Terminology such as “more”, “increase”, etc. Only statements included that are future orientated and indicate commitment to change due to the current information that has been provided during the focus group discussions.