The inclusive education of students
with a hearing impairment:
A case study inquiry

by
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A thesis submitted for the Degree of Doctor of Philosophy

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PLEASE NOTE

The greatest amount of care has been taken while scanning this thesis,
and the best possible result has been obtained.
DECLARATION

I hereby declare that this work has not been submitted for a higher degree at any other institution.

I further declare that the work identified as mine is an original contribution and that all other sources and notes have been acknowledged appropriately in the text and reference lists.

Kerrie Carson

18th December 2001
Date
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ABSTRACT

Inclusion is the practice of “serving students with a full range of abilities and disabilities in the general education classroom, with appropriate in-class support” (Bennet, Deluca & Bruns, 1997, p.115). In Australia and the United States there is an increasing trend towards educating all students with a hearing impairment with their hearing peers in neighbourhood schools (Luetke-Stahlman & Stryker, 1999; Senior Education Officer NSW Department of Education and Training, personal communication, March 8, 2000).

Using qualitative case studies, this researcher explored the inclusive placement of three students with a hearing impairment. The three students came from non-English speaking backgrounds, used hearing technology to access the class program and were eager to attend their local primary school. These students had different types of hearing losses and were the only hearing-impaired students who were enrolled at their school.

A data-gathering tool was designed to examine the five variables which influenced the success of the inclusive placement. These variables included the student’s academic, social and physical performance, the school environment and parental/family support. The constant comparative method was used to analyse data collected in each case study (Glaser & Strauss, 1967). Findings from the case studies identified strengths and weaknesses in the students’ inclusive placement. The findings also provided data for future research and discussion on inclusive education.
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CHAPTER ONE

1.0 Introduction to Research

1.0.1 Introduction

The successful education of students, including students with a hearing impairment, is a goal for all teachers (Higgins, 1990). Inclusive education is one educational approach in the continuum of options available to deaf and hard-of-hearing students (NSW Department of Education and Training, 1999b; NSW Department of Education and Training, 1999c). Successful inclusive education focuses on the individual goals of the student with special needs (Brucker, 1994; Luckner & Denzin, 1998). These goals include academic achievement, positive self-image and emotional well-being and the transition to independent adults (Afzali-Nomani, 1995; Brill, MacNeil & Newman, 1986).

1.1 Background to the Research

In the successful inclusion of deaf and hard-of-hearing students, knowledge of this heterogeneous group is crucial. However, there is little information available about the various subgroups of the deaf and hard-of-hearing population (Allen, 1992). Without sufficient knowledge of deafness or inclusive education, class teachers often make decisions about the hearing-impaired student based on conventional wisdom rather than fact (Easterbrooks, 1999). For example, a teacher reports that the student reads, writes or spells well enough for a deaf child instead of discussing the achievement of specific learning outcomes. Determining the linguistic, educational and social needs of a child with a hearing impairment is a complex matter which requires an individualised and team based approach (Burnip, 1993).

The successful inclusion of deaf and hard-of-hearing students requires thoughtful assessment, planning and evaluation. Successful inclusion requires careful monitoring to ensure
the needs of the student with a hearing impairment are being met. The successful inclusion of
deaf and hard-of-hearing students requires a competent and committed staff, comprehensive
programs, appropriate resources and the meaningful involvement of parents (Calderon, Bargones
& Sidman, 1998; Dinnebeil & Rule, 1994). The adoption of these principles into school practice
rather than the mere physical placement of a student will enhance the successful inclusion of
deaf and hard-of-hearing students.

The N.S.W. Department of Education and Training advocates a policy of inclusion which
involves the education of students with a hearing impairment with their hearing peers (NSW
Department of Education and Training, 1999b). Successful inclusion refers to the satisfactory
academic, social and communicative performance of the student with special needs (e.g., a
hearing impairment) in the general education setting (Afzali-Nomani, 1995; Saur & Stinson,
1986). Five variables associated with the successful inclusion of students with a hearing
impairment have been identified in previous research (Brill et al., 1986). These variables are the
student’s academic, personal and communication skills, the school environment and
parental/family support. Unlike previous research, all five variables were considered in this
research.

Furthermore, this research was conducted at a school where there were only three
students with a hearing impairment. Previous research which examined the educational
placement of students with a hearing impairment was conducted at schools for Deaf Students or
in settings where there were a number of deaf or hard-of-hearing students. In both these settings
members of staff have the advantage of being able to discuss problems and share support
strategies. However, in the present educational system there may only be a small number of
students with a hearing impairment enrolled at a local primary or secondary school (Corson & Stuckless, 1994; Konza & Paterson, 1996).

1.2 Focus of the Research

When inclusion is considered an appropriate educational placement for a student with a hearing impairment it is a challenge to make the placement a successful one. “Educational management based on each child’s individual strengths and weaknesses is commonly accepted as good educational practice” (Burnip, 1993, p.17). In a successful inclusive placement the personal and environmental needs of the deaf and hard-of-hearing student are identified and weaknesses in their learning are addressed (Brill et al., 1986; Corson & Stuckless, 1994; Higgins, 1990).

This research examined the inclusive placement of three students with a hearing impairment who were enrolled at Summerton Public School (i.e., their local primary school). In this research all five variables identified in previous research on inclusive education (i.e., the student’s academic, personal and communication skills, the school environment and parental/family support) were explored in the investigation of the students’ inclusive placement.

Findings from this research identified the special needs of the three students with a hearing impairment, demonstrated the practice of inclusion at a neighbourhood school and provided data for future research on inclusion. By focusing on such a small population, this research had the same research goal as the study by Grove and Fisher (1999). “Our research goal is not to analyse inclusive education as experienced by all students, but to understand the experience of a particular group of students” (Grove & Fisher, 1999, p.209).
1.3 Research Questions

1.3.1 Principal Research Question

1. Using the five variables associated with successful inclusion, how successful is the inclusive placement of the student with a hearing impairment?

1.3.2 Research Sub-Questions

1. What is the attitude of the student with a hearing impairment towards their inclusive placement?

2. How does the student’s attitude to inclusion affect the student’s inclusive placement?

3. What expectations do the parents of the student with a hearing impairment have for their child in the regular classroom setting?

4. How do the parent’s attitudes to inclusion influence their child’s inclusion?

5. What are the attitudes and perceptions of persons involved in delivering the inclusive educational program?

6. How do the attitudes and perceptions of persons involved in delivering the educational program affect the student’s inclusion?
CHAPTER TWO

2.0 Review of Literature

2.0.1 Introduction

The three main areas of this literature review are inclusive education, hearing impairment and qualitative research. Additional areas explored in the literature review are: students from non-English speaking backgrounds, students with dual cultural identities and the impact of hearing loss on the child (including education and family). Variables and qualitative measures used in the examination of the inclusive placement for students with a hearing impairment were also investigated.

2.1 Inclusion

Inclusion refers to the practice of “serving students with a full range of abilities and disabilities in the general education classroom, with appropriate in-class support (Bennett et al., 1997, p.115). In its widest sense inclusion means “creating learning communities that appreciate and respond to the diverse needs of its members” (Phillips, Saponà & Lubic, 1995). According to Rumsey (1984) full inclusion occurs when the student with special needs is enrolled in a regular class at the local school and is supported by specialist teachers (e.g., Itinerant Support Teacher Hearing).

The availability of resources and trained personnel influences the successful education of students with special needs in the regular classroom (Elliot & McKenney, 1998; Wright & Sigafoos, 1998). The inclusion of students with special needs into regular classes without appropriate support services has been referred to as ‘dumping’ (Cook, Semmel & Gerber, 1999; Konza, Gow, Hall & Balla, 1987). All participants in the inclusive placement require support to make inclusion an achievable goal (Mukherjee, Lightfoot & Sloper, 2000).
Inclusion is a continual process and is not just a change of state or a goal within itself (Ainscow, Farrell, Tweddle & Malki, 1999). Inclusion is a deliberate and systematic process which is responsive to the learning needs of the individual (Arthur, 1994). When pursued in a thoughtful, organised manner, inclusion has a positive impact on a student’s success at school (Giangreco, Baumgart & Doyle, 1995). Successful inclusive education requires commitment from all members of the school community (Federico, Henold & Venn, 1999). Inclusion will not be successful when it is forced upon classroom teachers (i.e., the person who is responsible for educating students with disabilities) (Buell, Hallam & Gamel-McCormick, 1999; Stanovich, 1999). Finally, in the provision of quality educational programs the practice of inclusion should only be implemented if it results in the successful education of students with special needs (Brownley, 1987; Haworth, 2000; O’Neil, 1995; O’Shea & O’Shea, 1998).

2.1.1 Philosophy of Inclusion

Inclusion is based on the belief that children of all ages should learn in an environment similar to the one in which they live (Florian, 1997). The inclusion of students with a disability in regular classrooms “has resulted from a human rights perspective and is based on a social justice paradigm of equal educational opportunity for all children with in the classroom” (NSW Department of Education and Training, 1999a, p.4). In the inclusive setting, the needs of all students are nurtured and addressed (O’Neil, 1995; Stinson & Antia, 1999).

2.1.2 Background to Inclusion

Inclusion is a human rights issue which involves participation, choice and empowerment (Marks, 1993). Article 23, in the UN Convention on the Rights of the Child (1989) highlighted the necessity for a disabled child to have “effective access to education…in a manner conducive to the child’s achieving the fullest possible social integration and individual development” (p.7).
Signatories to the Salamanca World Conference Declaration Statement (1994) were called upon to adopt a matter of law or policy the principle of inclusive education, enrolling all children in regular schools, unless there were compelling reasons for doing otherwise. (UNESCO, 1994, p.x)

Inclusive education is based on the premise that all children have the right to attend their local school (Ainscow, 1997). In the United States of America Public Law 94-142 and the Individuals with Disabilities Education Act of 1990 (IDEA) and the Amendments to the Individuals with Disabilities Education Act (1997) protect the educational rights of students with a disability. Children with disabilities are guaranteed a free and appropriate education which is conducted in the least restrictive environment (Fischgrund, 1995). The concept of the Least Restrictive Environment has provoked debate, controversy and confusion in the education of students who have special needs, especially in the field of deaf education (Dubow, 1989).

In Australia, The Salamanca Statement and the Framework for Action were used to formulate strategies which promoted the inclusive education of students with special needs (Ainscow, 1997). The Disability Discrimination Act protects the educational rights of students with a disability (Australian Attorney General’s Department, 1992). In New South Wales and in other states of Australia, the government school system provides quality education for all students and does not discriminate against enrolments on the grounds of disability (NSW Department of Education and Training, 1999b). The goal of inclusive education in Australia is to help students with special needs achieve success in their schooling (i.e., learn and be happy in the regular classroom) (MacMullin & Vaz, 1995).

Traditionally, the process of inclusion in Australia has been a process of ‘refer, assess and place’ (Arthur, 1994). In 1973 the Karmel Report recommended devolution of responsibility and
decision making among members of the school community. School based decision making ensured the equal participation of all concerned in the student’s education. The education of students with disabilities becomes part of a whole school policy on inclusion (Marks, 1993).

Responsibility for addressing the educational needs of students (with and without a disability) is a challenge for schools today (NSW Department of Education and Training, 1999b). Effective schools provide quality and equity in the curriculum for all students. “A school can be described as effective only when every child is being educated successfully in it (NSW Department of Education and Training, 1999a, p.4)).

2.1.3 Benefits of Inclusion

Inclusion benefits students with a disability as they have numerous opportunities to work and play with students who do not have disabilities (O’Shea & O’Shea, 1998). Inclusion helps students with special needs access a wider curriculum than available in special classes and gives them the opportunity to develop friendships in their locality (Johnson & Griffith, 1985; Lynas, 1999). A successful inclusion program develops the intellectual, linguistic and social skills of students with a hearing impairment (Afzali-Nomani, 1995; Sodak, Podell & Lehman, 1998).

Inclusion benefits all students who are enrolled in the regular classroom (Grove & Fisher, 1999; Salend & Duhaney, 1999). Inclusion, if handled appropriately, promotes greater understanding of students with disabilities. In-service programs at schools which focus on awareness issues decrease and even eliminate the fears and myths that surround special needs students (Malcolm, 1995). Successful inclusion helps all students to participate in an inclusive society (Chandler & Todhunter, 1996).

Furthermore, inclusion extends the classroom teacher’s knowledge of disabilities and repertoire of teaching strategies (Buell et al., 1999). With support from specialised teachers the
included student is the responsibility of the regular classroom teacher (Brackett, 1997). In the successful inclusive education of students with special needs it is essential for classroom teachers and specialist teachers to work together as a team (Buell et al., 1999; Pugach, 1995).

Finally, inclusion assists the parents of children who have special needs (i.e., parents learn that they are not alone). Parents are often surprised by the complexity in making plans for the education of their child who has a hearing loss. In the successful inclusive education of students with special needs parents and teachers form valuable partnerships (Corson & Stuckless, 1994; Kalyanpur, Harry & Skrtic, 2000; Westwood, 1994). In these partnerships all knowledge is valued and appreciated and no one person is regarded as the expert (Greaves, 1995). With knowledge and support from school personnel, parents can make informed choices about their child’s education (Winter & Van Reusen, 1997).

2.1.4 Inclusion and Inclusive Education

Education is characterised by a series of conflicts and dilemmas. In a mass educational system there is the dilemma of meeting the diverse needs of students in a common setting (i.e., commonality versus difference). One response to this dilemma is the inclusion of special needs children in regular classes. Resolutions in inclusive education do not occur out of a social vacuum but rather from a specific social space (i.e., the inclusive school environment). The restructuring of the inclusive school can be explained in terms of change and organisational problem solving.

Inclusive education involves the development of new structures and practices rather than the restructuring of traditional forms of special education (Clark, Dyson, Millward & Robson, 1999). A number of school-wide modifications are required for successful inclusive education (Zollers, Ramanathan & Yu, 1999). Commitment of individuals is essential in the change of
educational practice (Federico et al., 1999). When conforming to externally devised policies, teachers construct their own meaning for change (Idol & West, 1991). Indeed, real change will only occur when teachers are actively involved in the process of change (i.e., when teachers turn policy into practice) (Arthur, 1994; Thorley, Hotchkis & Martin, 1995).

The practice of inclusive education also requires schools to make appropriate organisational changes (Pugach, 1995). In the inclusive school and classroom, the diverse needs of students are addressed with the development of new structures (e.g., multi-disciplinary support teams) and the employment of suitable educational practices. Consequently, both the commitment and beliefs of individuals and the development of educational structures and strategies influence the success of the inclusive placement.

2.2 Successful Inclusive Education

The beliefs of stakeholders and the employment of educational practices influence the success of the inclusive placement (Buell et al., 1999; Cook et al., 1999; Florian, 1997; Malcolm, 1995; Tapasak & Walther-Thomas, 1999; Westwood, 1997). Characteristics of successful inclusive education are positive attitudes to inclusion, objective on-going assessment, appropriate use of resources, adaptation of curriculum, effective teaching strategies and leadership and collaboration among key stakeholders in the inclusive placement (Giangreco et al., 1995; Hobbs & Westling, 1998; Lang, McKee & Conner, 1993; Lindsay, 1997; MacMullin & Vaz, 1995; O’Shea & O’Shea, 1998; Villa, Thousand & Chapple, 1996). The adoption of these beliefs and strategies into school practice rather than the mere physical placement of a student is crucial in the successful inclusive education of students with special needs.
2.2.1 Attitudes to Inclusive Education

Members of the school community influence the success of the inclusive placement (Schulz, Carpenter & Turnbull, 1991). In the successful inclusive education of students with special needs it is important for parents, teachers and fellow classmates to have a positive attitude towards the inclusive placement (Cook et al., 1999).

Most parents of students with special needs see inclusion as a desirable goal. Over the last two decades parents with children who have disabilities have played and are playing an increasing role in their child’s education (Grove & Fisher, 1999). Parents who become advocates for their child with special needs work in partnership with their child’s teacher (Bennett et al., 1997). Because parental perceptions of the class teacher and of available support personnel influence the success of the inclusive placement it is essential for school personnel to acknowledge and respond to the emotional needs of the child’s parents (Greaves, 1995).

In education, teachers are often viewed by parents as the gatekeepers of their child’s future (Westwood, 1997). In the successful inclusive education of students with special needs it is important that teachers have positive attitudes towards students with disabilities and to the principle of inclusion (Opdal, Wormnaes & Habayeb, 2001; Rose, 2001). Previous research has reported that regular classroom teachers have a positive attitude to inclusion when students with special needs do not require additional teaching competencies or work and when students with special needs do not cause behavioural disturbances in the classroom (Konza et al., 1987; Sodak et al., 1998).

Teacher’s actions and expectations are influenced by their personal beliefs and attitudes (Wright & Sigafoos, 1998). Positive teacher–learner interaction is crucial for successful learning. The attributes and competencies of the teacher interact with the attributes and attitudes of the
student. Positive teacher-learner partnerships occur when teachers believe their actions make a significant contribution to student learning (Buell et al., 1999; NSW Department Education and Training, 1999b).

The willingness of teachers to accept an inclusive placement is often influenced by procedural classroom concerns or school environmental conditions. Scruggs and Mastropieri, (1996) reported that teachers felt inclusion created extra work, that these students required more attention, that significant changes had to be made to the classroom and that the teacher felt imposed upon. In successful inclusive education teachers freely ask for assistance, accept suggestions and offer extra assistance to the included student (Boyd, 1988). However, some teachers appear reluctant to ask for additional assistance as this would suggest that they were incompetent teachers (Chorost, 1988). Teacher uncertainty towards inclusion is a result of lack of training and unsuccessful teaching experiences. From the perspective of the classroom teacher Ringlaben and Price (1981) reported that a large percentage of inclusive teachers felt unprepared to teach students who had special needs in their classroom. This finding was confirmed by Winter and Van Reusen (1997) who reported that classroom teachers had minimal preparation for teaching exceptional students. The study by Villa et al. (1996) found few teacher training programs included explicit information on the teaching skills required to teach students with special needs. Winter and Van Reusen (1997) also reported that classroom teachers were unaware of the recommended guidelines and requirements for teaching students with special needs. Many challenges for teachers and students emanate from a lack of understanding (Wright & Sigafos, 1998). However, solutions can be worked out when teachers and students have a basic understanding of the disability (Gjerdingen & Manning, 1991).
Teachers and parents are often surprised to see how students with special needs view themselves (Malcolm, 1995). Although students were unsure of the process Vaughn and Kinger (1998) reported that most special needs students thought parents and teachers worked together to make the decisions about their educational future. It is interesting that the people most affected by these educational placement decisions are rarely heard (Vaughn & Kinger, 1998). Studies have shown that the student’s responsibility for learning is a critical factor in their motivation to learn (Boyd, 1988). The empowerment of students with special needs in the inclusive classroom (Lindsay, 1997) enables them to become effective self-advocates (Mittler, 1995).

In the successful education of students with special needs it is important to provide a range of educational support models (Clark et al., 1999; Liu, 1995; NSW Department Education & Training, 1999c; O’Neil, 1995). Although students do not unanimously prefer one service delivery model to another, students do have preferences about which model they prefer for themselves (Vaughn, 1998). Students in some instances prefer withdrawal support because they appreciate the extra help as compared to support in-class which has social benefits. During in-class support sessions the special needs student, other members of the class and the classroom teacher appreciate assistance from the specialist teacher (Wasta, Scott, Marchand-Martella & Harris, 1999). In the regular classroom students with special needs expect to be treated in the same manner as peers in their class (Chandler & Todhunter, 1996).

Sensitivity to the needs and feelings of all members in the inclusive classroom is important (Schulz et al., 1991). In the classroom the teacher is required to balance the needs of the student with disabilities with those of the other children (Bennett et al., 1997). With knowledge of the disability most regular class students are understanding and tolerant towards the student with special needs. However, when too many special concessions are granted to the
special needs student, regular students sometimes feel unfairly treated (Cook & Semmel, 1999). Therefore, it is important for teachers to be viewed by all students as fair and to have one set of standards in the classroom (Lynas, 1986).

2.2.2 Assessment

Assessment has played a central role in the development of policies and practice in special education (Rouse & Agbenu, 1998). Assessments used to evaluate the inclusive placement of students with special needs are diagnostic tests, structured observations, rating scales and checklists. Formal assessments are used to support teacher’s judgments. Continuous assessments are used to help teachers understand students’ daily learning needs.

Informed and careful judgment is required for the successful inclusion of students with special needs. Information from assessments helps teachers, parents and other stakeholders ascertain and monitor the student’s special needs for support. The active involvement of parents in the assessment process virtually assures parental support for the student’s intervention program (Meadow-Orlans & Sass-Lehrer, 1995).

Inclusion can be regressive if done without objective information. Valid assessments of students with disabilities are made with the collection of data from a variety of sources (Dinnebeil & Rule, 1994).

2.2.3 Effective Teaching

Effective teaching is defined in terms of enhanced student learning and achievement (Lang et al., 1993). All students in the classroom benefit from the implementation of effective teaching strategies (NSW Department Education and Training, 1999b; Winter & Van Reusen, 1997). Effective communication (formal and informal) is crucial in the teaching of deaf and hard-of-hearing students (Simser, 1999). Students with a hearing impairment overcome barriers
in the classroom (i.e., participate and interact in classroom activities) with the use of effective classroom management strategies (Luetke-Stahlman, 1998).

Powers (2001) and Sass-Lehrer (1986) discussed competencies needed to teach students with a hearing impairment. These competencies included professional awareness, classroom management and instruction and public relations. The first competency involved the teacher’s knowledge of hearing impairment. Classroom teachers need a basic understanding of hearing impairment (e.g., classification and degree of hearing loss) and hearing technology (e.g., hearing aids, FM systems). The second competency focused on the management and use of hearing technology in the classroom and the provision of linguistic and supplementary instruction. Included in classroom instruction and management is the teacher’s ability to demonstrate fairness and impartiality and the teacher’s ability to respond to a crisis. The final competency referred to the teacher’s ability to collaborate with other participants who are involved in the inclusive placement (i.e., support teachers and members of the student’s family) (Buell et al., 1999). In the successful inclusive education of students with a hearing impairment the class teacher helps the family develop positive attitudes towards their hearing-impaired child (Sass-Lehrer, 1983).

2.2.4 Adaptation of Curriculum

A shared curriculum in the inclusive classroom accommodates the student’s needs and ‘fosters success for all students’ (NSW Department Education and Training, 1997-1999; NSW Department Education and Training, 1999b). Adaptations in curriculum (i.e., the student’s learning program), instruction, assessment and support are required for the successful inclusion of students with special needs in the regular classroom (Center & Ward, 1987; Giangreco et al., 1995). Without appropriate adaptations, students’ chances for success are compromised.
Emphasis should be placed on strategies which meet the unique needs of the student with disabilities in the regular classroom (Liu, 1995).

In a successful inclusive program, students with a hearing impairment should have access to all aspects of the program and to program personnel (Corson & Stuckless, 1994). Access refers to the student’s ability to participate in the learning environment on an equal basis without constant intervention of support personnel (i.e., an integration aide or an interpreter). As learning does not occur in a vacuum, deaf children need to participate in the full dynamics of the situation, be it the classroom, the playground or on an excursion. Language is not learnt passively (i.e., through an interpreter) but through interaction with others (Perigoe, 1999).

With assistance from their Individual Education Program (IEP) the student with special needs accesses the class program. Members of the student’s Learning Support Team (of which parents are valuable and informative members) are responsible for the design, implementation and evaluation of the IEP (Dinnebeil & Rule, 1994; Winter & Van Reusen, 1997). In the IEP goals and strategies are developed to meet the special learning needs of the included student. In class, the teacher and support personnel implement strategies identified in the individual program. Each year at the Review Meeting the student’s short and long term educational goals are re-assessed by members of the Learning Support Team (Ross, 1991).

2.2.5 Resources

Inclusion, although expensive in the short term, is an investment in the future of students with special needs (Konza et al., 1987). The appropriate and effective use of human and material resources is crucial in the successful inclusive education of students with special needs (NSW Department of Education and Training, 1999b). Inclusion without the appropriate allocation of resources is “merely ‘dumping’ students into included (regular) classes to compete with
nondisabled students" (Cook et al., 1999, p.205). In the regular classroom, students with special needs require assistance and support from personnel who have specialised training (Konza & Paterson, 1996). Resource personnel who support the special needs student in the regular classroom are school based (i.e., resource teachers, itinerant support teachers, counsellors) or community based (i.e., speech therapists, occupational therapists). In successful inclusive education all members of the student’s Learning Support Team understand the role of the specialist teacher. A lack of understanding promotes a stressful working environment in which the specialist teacher feels isolated and resented by regular classroom teachers (Konza & Paterson, 1996).

2.2.6 Collaboration and Team Work

Collaboration and team work among members of the student’s Learning Support Team are important in the successful inclusive education of students with special needs (MacMullin & Vaz, 1995; Villa et al., 1996; Wood, 1998). Characteristics of collaboration are co-operative planning, shared responsibility and problem solving and joint ownership of the solution (Luetke-Stahlman, 1995b; Stanovich, 1996). Additional qualities of successful collaboration are voluntary participation, parity for all members and participant and program accountability (Idol & West, 1991). The collaborative model in teaching utilises the expertise and experience of several persons and is beneficial to all students in the classroom (Phillips et al., 1995).

Strategies which enhance collaboration in schools are effective leadership and organisational structures in the school and ongoing staff development. Effective inclusive leadership encourages an atmosphere of participatory democracy in which the voices of members of the school community are heard, valued and respected (Zollers et al., 1999). In collaborative schools, learning support teams and committees serve as vehicles for professional development
and as a means to accomplish specific tasks (e.g., the successful inclusive education of a student with special needs).

Successful inclusion cannot be achieved without a genuine commitment to team play. Wood (1998) found that collaboration amongst team members could not be guaranteed. Difficulties in collaboration occur as a result of lack of understanding and experience, communication breakdowns, lack of flexibility and time limitations.

Difficulties in collaboration occur as a result of lack of knowledge and understanding. For successful collaboration all team members require knowledge of the disability and of the student’s special needs and an understanding of the background and attitudes of other team members (Buell et al., 1999). In addition, few teachers have received training in the process of collaboration. Graduates rarely have seen the process of adults collaborating across areas of expertise in the school environment (Villa et al., 1996). Yet teachers are required to effectively liaise and work with a variety of personnel in the school environment.

Problems in collaboration occur when members from the wider community are reluctant to actively participate in the collaborative process. Arthur (1994) found that medical and specialist personnel did not want to discuss the special needs of the inclusive student with school personnel.

Collaboration among participants who support the inclusive placement is also difficult because of a lack of time and consideration of alternate strategies. Collaborative teams require time to meet, time to plan, time to share thoughts, time to teach and time to assess. In the successful inclusion of students with special needs time is a valuable resource. Problems in collaborative teams occur when alternative solutions are not considered (e.g., consideration of Plan B, 'if this doesn’t work let’s try this').
Inclusive education has been seen by some as the dismantling of special education (i.e., the reason for the closure of special schools and classes) (Corson & Stuckless, 1994). In the education of students with special needs it is important to remember, “inclusion is one educational principle amongst many” (Clark et al., 1999). When inclusive education is considered the most appropriate placement, then factors which affect the success of the placement need to be addressed (e.g., participant attitudes). In the successful education of students with special needs, recognition and awareness of the cultural beliefs held by all stakeholders is crucial (Alvarez, 1998; Barrera, 1993).

2.3 Cultural Diversity

Cultural diversity is a characteristic of Australian history and heritage. In Australia, New South Wales is the most multicultural state (NSW Department of Education and Training, 1999a). Over 100,000 students (22.2%) enrolled in NSW primary schools come from non-English speaking backgrounds (NSW Department of Education and Training, 2000a). Languages spoken by these students include Arabic, Chinese, Filipino, Greek, Hindi, Italian, Korean, Macedonian, Serbian, Spanish and Vietnamese (NSW Department of Education and Training, 2000a).

In the Multicultural Implementation Plan 1998–2001, the NSW Department of Education and Training showed a commitment towards “building a learning community which harnesses the cultural and linguistic diversity of New South Wales in order to fully realise its social, civic and economic capabilities” (NSW Department of Education and Training, 1998a, p.2). Outcomes of the Multicultural Implementation Plan are the provision and delivery of culturally responsive and inclusive programs and services, the development of programs which enhance civic
responsibility and harmony and the effective use of cultural and linguistic resources in the community (NSW Department of Education and Training, 1998a).

Bruner described culture as “a toolkit of techniques and procedures for understanding and managing your world” (Bruner, 1999, p.98). Every culture has its own set of rules, beliefs and values. The adherence to these standards and expectations maintains individual and group goals and influences the behaviour of its members (e.g., the acceptance of a child with a disability). Winzer and Mazurek (1998) wrote, “parents possess a variety of culturally based perspectives concerning the etiology of their child’s disability, and the cultural meanings attached to concepts of the disability” (p.251).

Cultural heritage is transmitted from one generation to the next generation through language and socialisation. Parents are influential role models in their child’s acquisition of cultural values and attitudes. Through interaction and family relationships traditional attitudes and social practices which the parents have acquired are transferred to their children (Coutinho & Repp, 1998).

When children become students at school they do not lose their cultural identities (Winzer & Mazurek, 1998). Barrera (1993) stated, “The experiences and resources that children bring to the learning environment are of critical import for their performance in that environment” (p.469). Good educational practice focuses on the strengths and weaknesses of the individual student (Burnip, 1993). Culturally responsive inclusive classrooms acknowledge the presence of culturally diverse students (Montgomery, 2001). In maximising the learning potential of culturally diverse students, teachers must identify their cultural values and beliefs, adopt multicultural objectives in their teaching and employ culturally appropriate strategies in the classroom (Alvarez, 1998). Montgomery (2001) reported, “many teachers are faced with
limited understanding of cultures other than their own" (p. 4). In the promotion of culturally responsive inclusive classrooms and the development of positive relationships with parents, members of staff require training in multicultural values held by the students at their school (Cohen, Fischgrund & Redding, 1990).

Collaboration between school personnel and the student’s parents is a vital characteristic of culturally responsive inclusive classrooms. The parent’s adherence to cultural values influences the family’s acceptance of intervention strategies, communication with professionals and participation in decision making at school (Kretschmer & Kretschmer, 1999). Barriers to parent involvement are, “lack of knowledge of the system, work and financial commitments and intimidation by professionals” (Winzer & Mazeuk, 1998, p.245). For many families, acceptance of the service is dependent on their acceptance of the service provider (Alvarez, 1998). Communication between parents and school personnel is often limited because of time constraints (i.e., parental/teacher work commitments) (Winzer & Mazeuk, 1998).

2.3.1 Students with a Dual Cultural Identity

In Australia, members of the deaf community regard themselves as belonging to a linguistic and cultural minority group (Power, 1992). Members of the deaf community are united by their shared values, beliefs and language. Many educators believe deafness supersedes racial or ethnic membership (Cohen et al., 1990). “Multicultural deaf children face the challenge of coping with at least three different cultures—their own ethnic or racial groups, the deaf community, and the mainstream—still predominantly white, middle class and hearing” (Sass-Lehrer, de Garcia & Rovins, 1995, p. 2). Meadow-Orlans, Mertens, Sass-Lehrer and Scott-Olson (1997) noted the disproportionate representation of migrant children in deafness-specific programs.
In the United States, approximately 40% of students who have a hearing impairment came from homes where English was not the primary language spoken (Easterbrooks, 1999). In NSW this percentage is unknown because data on student background and disability is not classified according to educational categories (Multicultural ESL Consultant NSW Department of Education and Training, personal communication, March 15, 2000; Senior Education Officer NSW Department of Education and Training, personal communication, March 8, 2000). Furthermore, the study by Cohen et al. (1990) found that hearing-impaired students from non-English speaking backgrounds were at a greater academic risk than hearing-impaired students from an English speaking background. In the successful inclusive education of students with special needs it is crucial that schools adopt appropriate policies and programs which address these needs.

Inclusive education which addresses the needs of all students in a class links multicultural and special education (Winzer & Mazurek, 1998). Multiculturally responsive inclusive classrooms recognise and support the student’s deafness and cultural needs (Montgomery, 2001; Sass-Lehrer et al., 1995). Positive outcomes of multiculturally responsive inclusive classrooms are a collaborative and sensitive learning environment and learning programs which help every student in the class reach their full potential.

2.4 Hearing Impairment

A basic understanding of hearing loss is important in the examination of the inclusive education of students with a hearing impairment. In the discussion of the implications of a child’s hearing loss, knowledge of the type and degree of hearing loss is also necessary.
2.4.1 Types of Hearing Loss

The two main types of hearing loss are sensorineural and conductive (Australian Hearing Services, 1998). A sensorineural hearing loss is caused by a dysfunction in the inner ear and auditory pathways (Brill et al., 1986). A sensorineural hearing loss cannot be treated or cured and affects approximately one in every nine hundred young children (Bamford & McSporran, 1993; Turner et al., 1998). Most children who have a sensorineural hearing loss are born with this condition as a result of genetic or pre- or peri-natal damage. However, a minority of children acquire a sensorineural hearing loss as a result of illness (e.g., meningitis) (Turner et al., 1998). A conductive hearing loss is caused by a dysfunction in the external middle ear (i.e., as a result of the build up of fluid in the middle and outer ear) (Moore, 1992). Conductive hearing losses occur more frequently than sensorineural hearing losses, can be treated and in most cases can be cured (Schoem, 1997). A mixed hearing loss refers to a combination of a sensorineural and a conductive hearing loss.

2.4.2 Degrees of Hearing Loss

Knowledge of terminology used to describe the degrees of hearing loss is crucial when discussing the inclusive education of a student with a hearing impairment. The terms hearing impaired or hearing impairment are generic terms “indicating a hearing disability which may range from mild to profound: it includes the subsets of deaf and hard-of-hearing” (Brill et al., 1986, p. 67). A hard-of-hearing person whose hearing loss is less than 90 decibels (Strong, Charlson & Gold, 1987) with the use of amplification (e.g., hearing aids) “has sufficient residual hearing to enable the successful processing of linguistic information” (Brill et al., 1986, p. 67). A deaf person is one who has a hearing loss which is 90 decibels or greater in the better ear and who is unable to successfully process linguistic information with or without a hearing aid (Strong
et al., 1987). The following sub-classifications of hearing loss presently used by the Australian Hearing Services (Table 1) are the same as those used by Brill et al. (1986).

Table 1

<table>
<thead>
<tr>
<th>Classification</th>
<th>Degree of hearing loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>27 - 40dB</td>
</tr>
<tr>
<td>Moderate</td>
<td>40 - 55dB</td>
</tr>
<tr>
<td>Moderate-Severe</td>
<td>56 - 70dB</td>
</tr>
<tr>
<td>Severe</td>
<td>71 - 90dB</td>
</tr>
<tr>
<td>Profound</td>
<td>91dB +</td>
</tr>
</tbody>
</table>

2.4.3 Impact of Hearing Loss on Conversational Speech

The frequency of familiar sounds spectrum (Figure 1) used by Northern and Downs (1984) shows the required level of hearing needed to hear conversational sounds in English. The sounds of speech appear in the shaded area (Figure 1). People with a moderate hearing loss or greater have difficulty hearing conversational speech, especially in the presence of background noise. Hearing technology such as hearing aids help the deaf and hard-of-hearing person hear sounds in the speech spectrum (Toe, 1999).
Figure 1. The frequency and intensity of familiar sounds spectrum (Northern & Downs, 1984).

2.4.4 Impact of Hearing Loss on Educational Placement

Characteristics of children with a mild hearing loss have been reported by DeConde (1984). These characteristics are: the delay in the identification of the child's hearing loss, the child's inconsistent response to auditory stimuli and articulation and conversation problems for the child. Northern & Downs (1984) reported that children with a mild hearing loss often missed important linguistic information such as plurals, tenses, intonation and stress patterns. DeConde (1984) found that younger children who had a mild hearing loss were easily distracted and appeared inattentive unless auditory information was received under optimal listening conditions. Finally, students with a mild hearing loss appeared to get by in the classroom (i.e., appear to have normal hearing), and often had unrealistic expectations placed on them by the class teacher and classmates (DeConde, 1984).
Students with a moderate hearing loss have difficulty hearing conversational speech particularly if there is a noisy background (Anderson & Matkin, 1991). These students inconsistently respond to auditory stimuli because they only partially hear information, conversations or instructions. Lacking perseverance or feeling the effect of fatigue the student with a moderate hearing impairment often gives up (Northern & Downs, 1984; Simser, 2000). Developing good articulation and linguistic ability is a challenge for students with a moderate hearing impairment as they have problems hearing many speech sounds (Figure 1).

The diagnosis of a severe or profound hearing loss threatens the normal processes of early interaction and language development (Turner et al., 1998). With appropriate amplification children with a severe hearing loss can identify environmental sounds and detect all the sounds of speech. Children with a severe hearing loss will need specialised aural/oral training with emphasis placed on auditory language skills, concept development and speech. The use of a hearing aid/FM system is essential with a severe hearing loss (Goldberg, 1999).

Students with a profound hearing loss will not spontaneously develop speech and language (Goldberg, 1999). These children are aware of vibrations more than tonal patterns. The detection of speech sounds by students with a profound hearing loss will depend on the loss configuration and the use of appropriate amplification. Children with a profound hearing loss will require early use of amplification (e.g., hearing aid/FM system) and specialised assistance with emphasis on language, communication and academic areas (Anderson & Matkin, 1991).

2.4.5 Diagnosis of Hearing Loss

Deafness creates barriers to the attainment of language and communication (Dubow, 1989). These weaknesses can be reduced by early intervention (Marlowe, 1999). Identifying a hearing loss in a young child is a complex process (Burnip, 1993). Mace, Wallace, Whan &
Stelmachowicz (1991) found that suspicion of hearing loss almost always preceded identification. Hence, all children referred to the NSW Children's Hospital receive an extensive multidisciplinary assessment from the Hearing Disorder Team (Greenberg, 1983). When diagnosing the child's hearing loss, the child's medical history, the etiology of deafness and other multiple handicapping conditions are taken into consideration.

Since the 1980s, goals of intervention specialists have been the early identification of all children with a hearing loss and the speedy initiation of services for children and their families (Mencher & Mencher, 1993). Children who are deaf are diagnosed at a younger age than children who are hard-of-hearing (Harrison & Roush, 1996; Meadow-Orlans, Sass-Lehrer, Scott-Olson & Mertens, 1998). The average age of diagnosis for a deaf child is 14.5 months whereas the average age of diagnosis for the hard-of-hearing child is 28.6 months. Delays in identification occur because the child is not considered at risk (i.e., there is no history of hearing loss in the family) and because of the child's illness (e.g., children with otitis media are initially treated by their doctor) (Harrison & Roush, 1996; Mace et al., 1991). Delayed identification results in a delay in language development (Ross, 1990). Children whose diagnosis was delayed were found to have lower behaviour and language scores than children who were profoundly deaf and who were diagnosed earlier (Meadow-Orlans et al., 1998). Early intervention programs for children with a hearing impairment focus on the acquisition of the child's age appropriate language, communication and social skills and assist families adjust and accept the child's hearing loss (Meadow-Orlans et al., 1998). Marlowe (1999) reported that collaboration among professionals, communication with parents and effective support systems were important requisites of successful intervention programs.
Over the last decade improvements in technology have promoted the early diagnosis of hearing loss. This has lead to earlier referrals and intervention. Qualified personnel, such as the paediatric audiologists at Australian Hearing Services, are responsible for the identification, assessment and management of a child’s hearing loss. In the hearing test, tones are presented through headphones and the level of hearing is recorded on an audiogram. An audiogram “is used to indicate the amount of amplification necessary for a person to be just able to hear a sound at a given frequency” (Weir, 1987, p.19). Following the diagnosis of a child’s hearing loss, the audiologist discusses the use of hearing technology with the child’s parents, prescribes and fits hearing aids and offers counselling and auditory rehabilitation. The audiologist also liaises with medical and educational agencies (Harrison & Roush, 1996).

2.4.6 Impact of Hearing Loss on the Child

Deafness is more than a medical diagnosis. Deafness is a cultural phenomenon in which social, emotional, linguistic and intellectual issues are linked together (Easterbrooks, 1999). Deafness affects a child’s whole-self identity (i.e., their academic, physical, social and emotional development) (Brill et al., 1986). Negative outcomes from deafness are disturbed and fragmented communication, isolation from the family and parental stress (Greenberg, 1983; Simser, 2000).

In the first five years of life a child acquires a great deal of linguistic knowledge and training. During this period the child is actively and continuously engaged in a process of creative construction of language (Lindfors, 1987). The child who is born deaf or hard-of-hearing is unaware of his or her disability until the child attempts to communicate with people in his or her immediate environment (i.e., parents or siblings). Meadow-Orlans et al. (1998) found that both age of diagnosis and severity of hearing loss had a negative impact on the social and linguistic skills of the child diagnosed with a hearing loss. Before the diagnosis of a child’s
hearing loss the infant is in control of his or her language learning and development. Children communicate using a variety of strategies (e.g., speech, facial expressions, eye contact or touch). After diagnosis, parents begin to control their child’s use of language in order to facilitate linguistic development and communication (Nienhuys & Tikotin, 1985). As the young infant grows up, the impact of deafness or hearing loss increases (Ross, 1990).

2.4.7 Impact of Hearing Loss on the Family

Understanding the impact of hearing loss on a child’s development and family relationships is critical when trying to understand the success or failure of students with a hearing impairment at school. Over 90% of children with a hearing impairment are born to hearing parents, who have had minimal contact with hearing impairment (Lederberg & Mobley, 1990). Parents provide a vital link in establishing, maintaining and maximising services for their children (Mencher & Mencher, 1993). Conditioning variables which influence parental perceptions of hearing impairment are parental experiences with deafness, the parent’s education and finances, support from the family and the reaction of siblings. Hence, in the education of students with special needs it is important to provide family centred rather than child centred intervention (Calderon et al., 1998).

The diagnosis of a hearing loss can be quite devastating for parents. The diagnosis of hearing loss is often associated with the death of a parent’s dreams for a normal child (Kampfe, 1989). Parents have feelings of anger, disbelief, confusion, frustration, depression, guilt and fear (Luterman & Ross, 1991; Turner et al., 1998). Parents may experience or re-experience these feelings separately or simultaneously at different times in their child’s life (Adams & Tidwell, 1989). In coming to terms with the hearing loss parents and siblings go through a number of emotional states or stages. These stages which are not universal among parents who have a child
with a hearing loss include shock, denial, blame and resolution (Kampfe, 1989). In the initial stage of grief, parents are devastated with the diagnosis of hearing loss and go into a period of disbelief and shock (Turner et al., 1998). In the denial stage parents try to withdraw from a situation that they cannot control. Denial is a normal defensive reaction for parents. In a situation which is seemingly beyond their control parents seek to blame someone or something for causing the hearing loss (Konstantareas & Lampropoulou, 1995). In the final stage of the grieving process, parents acknowledge the fact of the hearing loss and become constructively involved in intervention programs. The effectiveness of intervention programs is demonstrated when parents can generalise coping and problem solving skills when confronted by future difficulties (Greenberg, 1983; Simser, 1999).

Following the diagnosis of their child’s hearing loss, major parental concerns are acceptance, understanding and communication with their child (Simser, 1999). Parental acceptance of a child’s hearing loss is influenced by the type, degree, cause and age of onset and the time between suspicion and diagnosis (Mace et al., 1991). Parents who have accepted their child’s hearing loss are able to discuss their child’s hearing loss and actively support their child’s use of hearing technology (e.g., hearing aids). As most babies with a hearing impairment are born into hearing families, the majority of parents have had little experience with hearing loss. Consequently, parents require a basic understanding of the implications of hearing loss and also knowledge of available support services (Turner et al., 1998).

Mothers who play a major role in their child’s acquisition of language provide a variety of language experiences when interacting verbally and non-verbally with their child (Turner et al., 1998). However, the relationship between mother and child may be disrupted when a child is diagnosed as deaf or hard-of-hearing (Luckner, 1991b). It is usually the mother who discovers
the child is experiencing hearing problems (Ross, 1990). Nienhuys and Tikotin (1985) found the quality of the interaction between the mother and baby with a hearing impairment was related to the child’s communicative competence. In the mother-child relationship, the mother draws upon her thoughts of language control and agenda (Spencer & Gutfreund, 1990; Wedell-Monnig & Lumley, 1980). In striving to improve the linguistic ability of a hearing-impaired and language delayed child, mothers automatically adopt an authoritarian leading role in conversations (Spencer & Gutfreund, 1990). When the hearing mother exercises such rigid controls over her child with a hearing loss creative construction of language by this child is almost impossible (Musselman & Churchill, 1991).

Hence, the communication exhibited by the child with a hearing impairment affects the social attachment relationship between the mother and child (Hull & Dilka, 1984). The social-emotional well being of the child cannot be taken for granted. With good communication skills a young child with a hearing impairment is likely to establish a positive, reciprocal relationship with their mother (Lederberg & Mobley, 1990). When addressing the needs of the child with a hearing impairment, some restructuring and planning may be required to maximise the child’s receptive and expressive skills (Simser, 1999).

Mothers often feel challenged and powerless at times in their attempts to elicit age appropriate responses from their child with a hearing impairment (Musselman & Churchill, 1991). Parent training programs which encourage a more child-centred style of interaction help mothers and care-providers interact with their hearing-impaired child (Luetke-Stahlman, 1990). In the training program the mother would be encouraged to provide the child with increased opportunities to initiate and direct the choice of conversation subjects. The training program also encourages the mother to participate in dialogues with their child at levels which go beyond
labeling or short answer responses (Mattock & Crist, 1990; Spencer & Gutfreund, 1990). Simser (1999) found these strategies enhanced the communicative and social relationship between the mother and the child with a hearing impairment.

2.4.8 Impact of Hearing Loss on the Child’s Education

The education of deaf and hard-of-hearing students is in a period of change with respect to theory and practice (Fischgrund, 1995). These changes influence classroom management and instruction (e.g., selection of curriculum, method of instruction, assumptions about placement and program organisation; especially in the areas of literacy and communication).

The development of effective and appropriate linguistic skills is essential for all members of our society (Dubow, 1989; Levy-Shiff & Hoffman, 1985). In the regular classroom, speech is the primary mode of communication (Simser, 2000). Oralism refers to the philosophy and practice of educating students with a hearing impairment through the development of speech communication skills. The oral-auditory approach teaches a child to make maximum use of their remaining hearing with the use of hearing technology (e.g., hearing aids). Speech reading and natural hand gestures are used in an oral-auditory program (Dornan, 1999). In an auditory-verbal approach, children with a hearing impairment learn to listen, process verbal language and to speak using his or her amplified residual hearing (Simser, 1999). A goal of the auditory-verbal approach is the inclusive education of children with a hearing impairment (Goldberg, 1999; Watson & Parsons, 1998). Characteristics of a successful auditory-verbal program are the early identification and diagnosis of hearing loss, supportive parents, consistent use of hearing technology, auditory and linguistic stimulation and appropriate educational and medical support (Simser, 2000). The auditory-verbal approach cannot be fully applied in the regular because of acoustic difficulties (e.g., reverberation) and problems with noise in the regular classroom.
(e.g., student talking and movement of furniture).

Children with a hearing impairment may have average or above average intelligence. However, this potential may not be realised as barriers to learning and to the development of language and communication are created with the diagnosis of a hearing loss (Turner et al., 1998). Students with a significant hearing loss have a limited vocabulary and difficulty communicating (i.e., expressing themselves and responding to others). As a result of communication difficulties academic, social and psychological development is hindered in hearing-impaired students (Schildroth, 1988). These developmental aspects depend on the acquisition of knowledge and interaction with peers. A lack of acceptance among peers can cause psychological and social problems for the student with a hearing loss (Antia & Kreimeyer, 1996).

The self-image of a student with a hearing impairment may influence his or her desire to participate and interact with peers in the inclusive classroom (Antia & Dittillo, 1998). Feelings of academic competency and self-consciousness are crucial to the learning of students with a hearing impairment. Teachers and parents are often surprised to see how deaf or hard-of-hearing students view themselves (Malcolm, 1995). With limited language and without exposure to appropriate role models deaf and hard-of-hearing students feel isolated, lonely and different from hearing students (Brown & Foster, 1991; Cappelli, Daniels, Durieux-Smith, McGrath & Neuss, 1995).

A pre-requisite of peer acceptance is knowledge of deafness (Reagan, 1988). The study by Owers (1996) found that most hearing children believed deafness was caused by shouting or loud noises, understood that deaf children had communication difficulties and were aware of the relationship between severity of hearing loss and poor speech. Although tolerant of the deaf
child's special needs, too many concessions towards deaf pupils often offended the hearing children's sense of justice (Lynas, 1986).

2.5 The Education of Students with a Hearing Loss

Education is a lifelong process which systematically promotes learning and development (Mittler, 1995). The education of students who are deaf or hard-of-hearing is different from the education of other children (children with and without a disability). All sensory impaired children are not alike, each child has a unique set of needs (Allen & Osborn, 1984; Liu, 1995). The deaf and hard-of-hearing population is a heterogeneous group (Goldberg, 1999). Hence, it is important to go beyond group identifiers and see the students first as individuals, each having a unique set of needs across cognitive, affective and psychomotor domains (Stanovich, 1999).

It is impossible to create a typical profile of a child with a hearing loss. Children with a hearing loss are at risk for outcomes below their potential (Calderon et al., 1998). These outcomes involve academic, social and emotional development. It has become common practice that children with a hearing loss receive some form of intervention within months of diagnosis. Positive outcomes of early diagnosis and intervention are improved social and cognitive development and early family support (Meadow-Orlans et al., 1997).

Deaf and hard-of-hearing students are entitled to a quality education (Fischgrund, 1995). Quality education for all hearing-impaired students is an achievable goal (Brownley, 1987; Liu, 1995). Programs which serve students with a hearing impairment need to be of a high standard to provide the best possible education for each deaf or hard-of-hearing student (Brill et al., 1986). As early as possible in a deaf child's education the full range of placement options should be considered in order to meet the unique needs of the student (Allen, 1992; Brill et al., 1986; Calderon et al., 1998; Farrell, 2000). Educational agencies provide a range of placement options
to ensure the special needs of the hearing-impaired child are met (Bernstein & Martin, 1992; NSW Department of Education and Training, 1999c). Placement options available to students with a hearing loss include specialist hearing classes and itinerant programs.

Placement decisions are based upon independent and dependent variables (Allen, 1992). Independent variables which influence educational placement are: the student’s degree of hearing loss, age of onset and diagnosis of hearing loss, race and ethnic background and additional disabilities. Dependent variables which influence educational placement are: the type of school, the student’s previous academic integration with hearing students, the student’s academic, social and emotional skills and language development.

When making decisions about the educational placement of students with a hearing impairment, knowledge of the nature and severity of deafness is important (Brill et al., 1986; Reese, 1995). Chorost (1988) found that students with a significant hearing loss (i.e., severe-profound) required greater educational intervention. The study by Hull and Dilka (1984) reported a direct correlation between degree of hearing impairment and educational placement (i.e., the greater the hearing impairment the more restrictive the educational setting).

Burnip (1993) reported, “educational management based on each child’s individual strengths and weaknesses is commonly accepted as good educational practice” (p. 17). Determining the linguistic, educational and social needs of a child with a hearing impairment is a complex matter which requires an individualised and team based approach (Burnip, 1993). Pre-requisites for all group members involved in the educational placement of students with a hearing loss are an understanding of deafness and of the terminology used in discussions of deafness.
2.6 The Inclusive Education of Students with a Hearing Impairment

Over the last twenty years an increasing number of students with a hearing impairment have been educated in regular classrooms (Bennett et al., 1997; Jaussi, 1991; McLeskey, Henry & Hodges, 1998). In the United States in the 1977-78 school year 33% of deaf and hard-of-hearing students attended public schools. In the 1991-92 school year 81% of deaf and hard-of-hearing students attended public schools in the United States (Luetke-Stahlman & Stryker, 1999). This trend has been mirrored in Australia. In NSW in 1988, 65.8% students with a hearing impairment were in a regular class and received itinerant support (Deaf Society of NSW, 1989). In NSW in 2000, over 90% of students with a hearing impairment were enrolled in regular classes (Senior Education Officer NSW Department of Education and Training, personal communication, March 8, 2000). Access to neighbourhood schools by students with a hearing impairment is NSW Department of Education and Training policy (Hall, Gow & Konza, 1987; NSW Department of Education and Training, 1999b).

The increasing number of students with a hearing impairment who are enrolled in the regular classroom is the result of earlier diagnosis and amplification, improvements in hearing technology and the use of effective teaching strategies (Monkman & Baskind, 1998). Because of the increasing number of students with a hearing impairment attending local schools (Schildroth & Hotto, 1991) there is an increasing number of schools serving this population, especially schools serving only one or two deaf and hard-of-hearing students (Konza & Paterson, 1996; Schildroth, 1988). With the enrolment of hearing-impaired students extra demands are placed on local schools in terms of resources and specialist support services.

Students with a hearing impairment require specialised assistance and support (Konza & Paterson, 1996). The Itinerant Support Teacher Hearing (ISTS) who has post-graduate
qualifications in this particular area of Special Education “travels to a number of schools in an area and provides instruction and support to students who have hearing losses from mild to profound” (Luckner & Miller, 1993b, p.16). An Itinerant Support Teacher, who is a skilled teacher, is well organised, has highly developed collaborative skills and is an advocate for his or her students (Konza & Paterson, 1996). The Itinerant Support Teacher provides direct instruction for the hearing-impaired student and serves as a consultant with other educators and members of the community (Grove & Fisher, 1999). The deployment of itinerant teachers for hearing and vision has led to a confidence and acceptance of students with sensory disabilities in regular education classrooms (Center & Ward, 1987).

2.7 The Successful Inclusive Education of Students with a Hearing Impairment

“Deafness creates invisible though not invincible educational complexities. Success in the inclusive classroom doesn’t come easily and is often disguised by false impressions of real progress” (Gjerdingen & Manning, 1991, p.147). Variables which influence the success of the inclusive placement of students with a hearing impairment have been identified in previous research (Beswick & French, 1985; Brill et al., 1986; Gjerdingen & Manning, 1991; Saur & Stinson, 1986). These variables include: the student’s academic, personal, social and communicative skills, the school environment (e.g., the physical features of school and classroom, teacher attitudes, support services available) and parental/familial support.

The first variable is the academic performance of the student with a hearing impairment. Indicators of academic performance are a positive attitude to learning, classroom participation and academic status (Stinson & Antia, 1999). Motivation to learn and to be a member of the regular class has a direct impact on academic performance of the student with a hearing impairment (Saur & Stinson, 1986). When unsure of the task or language used in the regular
classroom it is important that the student with a hearing impairment seeks and accepts support from the teacher (Lynas, 1986). Academic competence within the range of other students in the classroom is also necessary for the successful inclusive education of students with a hearing impairment (Brill et al., 1986; Gjerdingen & Manning, 1991; Nix, 1977). Mertens and Kluwin (1986) reported, “the largest single factor in the achievement of hearing impaired students in public school programs is their initial abilities” (p.10). Reich, Hambleton and Houldin (1977) noted, “when the IQ (Intelligence Quota) slipped too far below 100 the student began to have difficulties” (p.54). Finally, Larrivee and Horne (1991) noted that students with a hearing impairment required a reading age appropriate to their chronological age, because reading is a pre-requisite for most subjects at school.

When discussing academic performance it is crucial that students with a hearing impairment are tested in the same objective manner as their hearing peers (Bunch, 1987; Mertens, 1989; Thorley et al., 1995). Distinctions destroy the unity of a class and promote misinterpretations about academic performance. “Regardless of how well the child adapts to the classroom, she will at best be seen by both teachers and peers as a successful deaf person” (Reagan, 1988, p.4).

The second variable is the personal and social competence of the student with a hearing impairment. Social competence refers to the student’s perception, knowledge and performance of required social skills and behaviour (Wojnilow & Gross, 1988). The social and emotional factors are unique for each student and cannot be overstated (Gjerdingen & Manning, 1991). The student’s linguistic, social communication and academic skills and the learning environment affect the development of social competence (Mootilal & Musselman, 1994). Perceived social competence is positively related to emotional security (Stinson & Whitmore, 1990). The ability
of students to select and use appropriate interpersonal skills is directly linked to peer-related social interaction (i.e., student participation in class and school activities) (Luetke-Stahlman, 1995a).

Physical proximity does not result in equal social interactions between hearing and hearing-impaired students in the inclusive classroom (Lee & Antia, 1992). In learning social skills there is a degree of flexibility in use and approach. However, individuals who deviate from the norm often suffer penalties such as isolation from the group (Brown & Foster, 1991). Lack of acceptance and the inability to make and interact with friends can have disastrous consequences on a child’s emotional development and academic achievement (Bailey, 1992). Research has revealed that children with a hearing impairment were more likely to be rejected by their peers than normally hearing children (Cappelli et al., 1995). Overcoming social isolation in the inclusive classroom is a major challenge for students with a hearing impairment (Luetke-Stahlman, 1995a). Strategies that support the positive interaction of all students (including those students with a hearing impairment) need to be encouraged in the regular classroom (Stinson & Whitmore, 1990).

Successful interaction among peers is an important aspect of child development (Antia, Kreimeyer & Eldredge, 1993). The social skills of the student with a hearing impairment can be assessed using formal measures (e.g., Meadow-Kendall Social-Emotional Inventory) and informal measures (e.g., researcher observations). In the inclusive classroom the student with a hearing impairment will be required to interact with other students, take responsibility for their actions and work independently. In the successful inclusive classroom it is important that students with a hearing impairment exhibit similar emotional and social skills as their hearing
class peers. Research has indicated that the chronological age of students with a hearing impairment needs to be within two years of their classmates (Brill et al., 1986).

The third variable involves the physical, communicative and linguistic skills of the student with a hearing impairment. In the inclusive classroom students with a hearing impairment require age appropriate physical (e.g., fine and gross motor performance), linguistic and communicative skills in order for them to successfully participate in class and group activities (Antia et al., 1993). In the regular classroom students with a hearing impairment make maximum use of their auditory perception and functioning skills (i.e., use of residual hearing). Although there is a direct relationship between the level of hearing loss and academic and social achievement (Hull & Dilka, 1984), it is the student's use of their residual hearing which is important (Reich et al., 1977; Saur & Stinson, 1986). Hence, audiological support which enhances the use of residual hearing is essential for successful inclusion (Gjerdingen & Manning, 1991).

The fourth variable is the school environment. This variable involves the physical characteristics of the classroom and the school (e.g., location of the room, class size, classroom acoustics and location of the school) (Brill et al., 1986; Saur, Layne, Hurley & Opton, 1986). In the successful inclusive classroom the effect of noise and reverberation is minimised (Toe, 1999). Because of the unique needs of students with a hearing impairment each classroom learning environment must be viewed differently. Adaptations to the classroom environment are based on the individual needs of the hearing-impaired student (Arthur, 1994; Luetke-Stahlman, 1996; Lynas, 1999).

The fourth variable also involves the attitude and commitment of school personnel towards the inclusive placement. Full inclusion will not be successful if it operates under
enforced circumstances (Afzali-Nomani, 1995). Successful inclusion occurs “where committed
groups of knowledgeable people working together make individualized decisions based on
objective evidence for each child’s present and future” (Brownley, 1987, p.341).

Leadership and support by the school principal is essential in the successful inclusive
education of students with a hearing impairment (Bennett et al., 1997). The study by Center,
Ward, Parmenter and Nash (1985) found that most principals had positive attitudes towards
students with special needs. In the successful inclusive education of students with a hearing
impairment the school principal fosters a positive learning environment for both teachers and
students. Effective leadership encourages close parental involvement, teacher creativity and
teacher empowerment for responsibility and decision making (Cook et al., 1999). An effective
principal has high expectations for all students in the school, is perceptive of the needs of
members of staff and provides appropriate professional development to meet those needs. An
effective principal establishes procedures to monitor student progress and recognises and
responds carefully to the need for change (e.g., variations to a student’s IEP) (Zollers et al.,
1999).

In the successful inclusive education of students with a hearing impairment it is crucial
the teacher has a positive attitude towards the inclusive placement (Buell et al., 1999). Hull and
Dilka (1984) found that a positive, enthusiastic attitude by the classroom teacher generated an
environment which encouraged acceptance and respect and created opportunity for social and
academic growth. Opdal et al. (2001) reported that previous teaching experiences, the type and
degree of the student’s disability, the teacher’s knowledge of the disability and professional and
administrative support influenced the teacher’s attitudes toward the inclusive student. Sodak et
al. (1998) found that classroom teachers who had previous successful experiences teaching
students with a hearing impairment, had a positive, supportive attitude to teaching subsequent students with a hearing impairment in their class. The study by Cook et al. (1999) found younger teachers held significantly more favourable views towards inclusion than their older colleagues. Sodak et al. (1998) noted a relationship between teacher attitude and the student’s disability (Figure 2). Limited academic progress and disruptions to classroom practice were issues highlighted by teachers in the study by Sodak et al. (1998). Finally, Chorost (1988) discovered that classroom teachers viewed more positively children with a mild to moderate hearing loss than children with severe or profound hearing losses.

Figure 2. The relationship between teacher hostility/receptivity and student disability and teaching experience (Sodak, Podell & Lehman, 1998).

Successful inclusion relies on the motivation, co-operation and support of classroom teachers (Center & Ward, 1987; Thorley et al., 1995). Inclusion is most effective when regular classroom teachers adapt instructional practices and assessment procedures to meet a variety of
student needs. The effectiveness and success of the inclusive placement is dependent upon the establishment and maintenance of a strong, continuing support structure within the regular education system. It is important that classroom teachers feel part of the team (i.e., part of an inclusive support network) (Ainscow, 1997). The support network for the student with a hearing impairment and the class teacher includes the Itinerant Teacher Hearing, the school counsellor, the integration aide and the paediatric audiologist. With specialised assistance the class teacher can monitor and adopt appropriate teaching strategies for the student with a hearing impairment who is in their class (Luckner & Miller, 1993a; Luckner & Miller, 1993b).

The successful inclusive education of students with a hearing impairment requires specialised assistance and support from an Itinerant Support Teacher Hearing (ISTH). The effective ISTH possesses a variety of personal and professional qualities. These personal and professional qualities are flexibility in approach to teaching, effective communicative and collaborative skills and a broad knowledge base (Liu, 1995; Yarger & Luckner, 1999). In the successful inclusion of students with a hearing impairment the role of the ISTH is clearly understood by all participants who are involved in the inclusive placement. Insufficient knowledge of the role of the ISTH can lead to teacher resentment, isolation and stress (Easterbrooks, 1999).

An informed staff is essential for the successful inclusion of students with a hearing impairment. Scruggs and Mastropieri (1996) reported that a large percentage of teachers thought they had insufficient training to teach exceptional children who were in their class. Most general education teachers have not received any training in the area of hearing impairment (Lass, Carlin, Woodford, Campanelli-Humphreys, Hushion-Stemple & Boggs, 1986; Luckner & Denzin, 1998; Scruggs & Mastropieri, 1996). As a result of insufficient knowledge of deafness
or inclusive education class teachers often made decisions about the student with a hearing impairment based on conventional wisdom rather than fact (Easterbrooks, 1999).

For the successful inclusive education of students with a hearing impairment, members of the school community need to learn about deafness. Studies by Hodgson (1984) and Jaussi (1991) revealed that teachers and classmates benefited from having a basic understanding of the implications of hearing impairment. Knowledge promotes acceptance and positive interactions in the classroom (Coryell, Holcomb & Scherer, 1992). Finally, in the successful inclusive education of students with a hearing impairment it is important that teachers are informed of, rather than surprised by, the enrolment of a student with a hearing loss in their class (Chorost, 1988). This is crucial because the class teacher is responsible for all students in the classroom (Stanovich, 1996).

The fifth variable is parental and family support. Familial, environmental and psychological factors influence the success of the inclusive placement (Calderon et al., 1998). These factors include the parent’s stress and coping styles, family attitudes and values, mother-child synchrony and reciprocity and the parent’s perceptions of and satisfaction with available support services (Brill et al., 1986; Meadow-Orlans et al., 1997). When ascertaining and addressing the needs of the student with a hearing impairment educational personnel need to take these factors into consideration (Greaves, 1995).

Therefore, in the successful inclusive education of students with a hearing impairment it is important for teachers and parents to work together (Grove & Fisher, 1999; Malcolm, 1995). With encouragement, counseling and training parents can become effective partners in their child’s Learning Support Team (Grove & Fisher, 1999; Stanovich, 1996). As partners, parents
and educators establish realistic goals and desirable learning outcomes for the included student (Silco, Sileo & Prater, 1996; Wolfendale, 1999).

Although all five variables influence the success of the inclusive placement previous research has focused on only one or two variables. Only one report (Brill et al., 1986) listed all five variables. When considering the success of an inclusive placement all variables need to be closely examined. Furthermore, studies which investigated these variables were conducted at schools for deaf children or neighbourhood schools attended by a number of deaf students (Brackett & Maxon, 1986). Schools with only a small number of students with a hearing impairment were not included. In this study, qualitative and quantitative research measures were used to examine the impact of the five variables on the inclusive education of three students with a hearing impairment. However, it should be clearly pointed out that the three students were the only hearing-impaired students enrolled at their local primary school.

2.8 Appropriate and Effective Research

Schools are educational sites in which complex processes and interests intersect and there are varied ways of realising different principles. Inclusion is one of many approaches in the spectrum of educational practice (Allen, 1992; Farrell, 2000). A discussion on the merits or limitations of inclusion is not as important as a discussion on what inclusion looks like in a particular context (Clark et al., 1999). An examination of an inclusive school allows the researcher to go beyond the surface of policy and investigate what is actually happening in the inclusive classroom. An investigation of this kind comes “at a time when educational research is under fire for its lack of practical relevance” (Clark et al., 1999, p.174).

With an increasing number of inclusive placements in education it is important to study ways to make the experience more meaningful and successful for children with special needs,
their parents and their teachers (Bennett et al., 1997). Over the past decade the placement of students with special needs in Australia has been evaluated using checklists, anecdotal records, interviews and observations (Bailey, 1992). With teachers as partners in the process of learning much has been learnt about learners and learning. The use of robust measures and a theoretical framework ensure the reliability and validity of assessment and measurement methodologies (Corson & Stuckless, 1994).

2.9 Qualitative Research

Qualitative research which is focused on understanding a given setting allows investigators to interpret and reveal meanings of a specific phenomenon (Janesick, 1994; Richards, 1997). Qualitative methodologies are a popular way to investigate education (Zollers et al., 1999).

Qualitative case studies focus on particular situations, events and phenomena (Merriam, 1988; Stake, 1995). Such in-depth case studies provide an accurate understanding of one setting rather than superficial and misleading information about isolated relationships in multiple locations (Grove & Fisher, 1999; Richardson, Kline & Huber, 1996). Qualitative case studies are problem centered and rely heavily on inductive reasoning which is grounded in multiple data sources (Richardson et al., 1996). In education, qualitative case studies are used to build-on and to construct theory (Abbott-Chapman, 1993; Merriam, 1988). For instance, single case studies have been used to ascertain the educational and social needs for support of students with a hearing impairment (Bullis & Anderson, 1986; Luetke-Stahlman, 1986).

2.9.1 The Qualitative Researcher

Qualitative researchers believe that inquiry is value laden and realities are multiple and shifting (Evans, 1998). In qualitative research researchers view experiences as a whole, analyse
data inductively and examine both process and product (Stake, 1995). From experience qualitative researchers construct (develop) their understandings (Stake, 1995). On the research journey the qualitative researcher travels through six phases (i.e., initial engagement, immersion, incubation, illumination, explication and creative synthesis) (Moustakas, 1990).

In the field the qualitative researcher "carefully, systematically experiences and consciously records in detail the many aspects of the situation" (Glesne & Peshkin, 1992, p.42). As long as professional standards are maintained and appropriate research methodologies are employed, there is no right nor wrong way to complete qualitative research (Abbott-Chapman, 1993).

In qualitative research the researcher is the key instrument (Glesne & Peshkin, 1992). In this role the qualitative researcher has the flexibility to investigate the phenomenon without the limitations of defined variables (Evans, 1998). The qualitative researcher presents a unique self which claims to have some authority in the phenomena being investigated (Denzin, 1994). The attitude, beliefs, interests and needs of the qualitative researcher influence the story the researcher has to tell. In qualitative research the impact of the researcher is not eliminated but rather is understood. Glesne and Peshkin (1992) commented, "subjectivity is something to capitalize on rather than to exorcise" (p.104). Self-awareness, conscious decision making and the explicit examination of the role and persona of the researcher are crucial in qualitative research (Ball, 1990). Without such clarity the qualitative researcher may fail to realise or anticipate many ethical dilemmas such as bounds of privacy and attitudes of participants (Harry, 1996).

The qualitative researcher "participates overtly and covertly in people’s daily lives for an extended period of time" (Hammersley & Atkinson, 1983, p.2). Consequently, it is important for qualitative researchers to develop workable roles and persona (Glesne & Peshkin, 1992).
development of rapport in qualitative research encourages participants to talk about their culture. People will talk more willingly about personal and sensitive issues once the researcher is known and trusted. Good rapport will achieve reciprocity. Rapport between participants and the researcher needs to be managed and monitored throughout the research.

As professionals it is important for qualitative researchers to maintain an ethical position (Clandinin & Connelly, 1994). Ethical values which the qualitative researcher maintains include honesty, fairness and respect for persons participating in the research (Glesne & Peshkin, 1992; Hitchcock & Hughes, 1989; Phtiaka, 1994). The adoption of a code of conduct protects both the researcher and the participants involved in the research (Wolfendale, 1999). Throughout the research it is essential for the role of the researcher to be continually monitored and recorded because “ethical and political dilemmas are not confined to one particular stage of the qualitative research process” (Burgess, 1980, p.171).

In qualitative research trustworthiness is the relationship between what is recorded in data and what actually occurs in the research setting. Trustworthiness means that the processes of research are carried out fairly and that the data accurately represents the phenomenon studied. The qualitative researcher must ensure the trustworthiness of the research. Ways to ensure the trustworthiness of the research are prolonged engagement, persistent observation, member checks and data cross-examination (McWilliam, 2000; Richards, 1997; Stake, 1995).

2.9.2 Collection of Data

In qualitative case studies the researcher consistently revisits the data (Stake, 1995). Data in qualitative research consist of “detailed descriptions of situations, events, people, interactions, and observed behaviors; direct quotations from people about their experiences, attitudes, beliefs and thoughts” (Merriam, 1988, p.67). In qualitative research multiple methods of data collection
are used to examine the multiple ways in which people understand and react to their world (Abbott-Chapman, 1993). Sources of data in qualitative research include field notes, interview transcripts, personal and official documents, found and researcher produced photographs. In addition, quantitative details may be used in the collection of data in qualitative research (Bogdan & Lutfiyya, 1996).

Participant observation in qualitative research is used to present a first hand account of the situation (Merriam, 1988). Observation is a research tool when it serves a formulated purpose, is planned deliberately, is recorded systematically and is subjected to checks and controls on validity and reliability (Bogdan & Biklen, 1992). The reliability of observational data is increased in qualitative research with the use of more than one observer (Yin, 1994). Photographs can be used to record observational data for outside observers (Yin, 1994).

An important recording tool of the qualitative researcher is the field notebook (Stake, 1995). It involves descriptions of people, places, events, activities and conversations. The format of the field notebook varies with the preferences of the researcher (Glesne & Peshkin, 1992).

In qualitative research interviews are a vital source of data. Interviews provide the qualitative researcher with a chance to gain an in-depth knowledge of a particular phenomenon or situation (Glesne & Peshkin, 1992). The structure of interviews varies according to the purpose of the interview. In qualitative research interviews may be structured, semi-structured or conversational. It is important to remember that the quality of the research depends on the quality of the text generated from interviews (Limerick, Burgess-Limerick & Grace, 1996).

The personality and interests of the interviewer influence the proceedings and outcomes of the interview. Interviewer bias can result from personal background factors of the interviewer (e.g., age, education), psychological factors (e.g., perceptions, attitudes, motives for doing the
interview) and behavioural factors (e.g., conduct of the interview). When conducting the interview, the interviewer is faced with many challenges. These challenges include the selection of time and venue, management of power, the need for flexibility and negotiation of roles during the interview (Vaughn, Schumm & Sinagub, 1996). During the interview the role of the interviewer needs to be made explicit (and closely monitored) and the agendas of interviewees need to be taken into consideration (Limerick et al., 1996; Powney & Watts, 1987). Finally, when interviewing children, it is important to treat them with the same respect as adults and to take their unique situations into account (e.g., interview time, size of the furniture) (Vaughn et al., 1996).

The audio-tape is a useful tool in qualitative research (Thompson, 1996). Tape-recordings link what is said to how it is said (or in some instances what is not said). The inflections, rhythms and experiences of interviewees are embedded in the recording. The tape-recording is a complete and accurate record which allows for multiple ‘listenings’ (Moustakas, 1990). With the use of a tape-recorder the researcher is free to concentrate on what is being said instead of struggling to record data accurately. Researchers make decisions about the utilisation and application of the tape-recorder. Interviewees grant approval for the interview to be taped and are assured that they are free to turn the recorder off at any stage during the interview. Finally, the tape-recorder has manipulative features in that it can facilitate or restrict communication (e.g., comments made by interviewees on and off the record).

In qualitative research documents are used to reveal concerns, to develop thoughts and to discover insights relevant to the research problem (Merriam, 1988). Documents are also used in qualitative research to verify the correct spelling and names of organisations, to provide specific information and to make inferences (Yin, 1994).
The use of the Delphi Technique provides current knowledge of the participants on the issue being considered. The Delphi Technique is “a carefully designed program of sequential interrogation, interspersed with information and opinion feedback in a series of questionnaires” (Cyphert & Gant, 1970, p.418). In education, the Delphi Technique is used to establish priorities, to develop curriculum and to determine educational goals and objectives (Cyphert & Gant, 1970). The Meadow-Kendall Social-Emotional Assessment Inventory is used to evaluate the social adjustment, self-image and emotional adjustment of deaf students (Meadow, 1983). Items in the inventory were arrived at using a Delphi approach and are based on observable behaviours. As teachers in the school system have the greatest opportunity to observe students, classroom teachers are the best people to complete the items in the inventory. Finally, authors of the inventory list recommend that the assessment is part of an overall assessment procedure.

In qualitative research triangulation, which is the use of multiple techniques, is used to confirm and develop theory. Triangulation may involve multiple data sources, investigators and theoretical perspectives. The practice of triangulation contributes to the trustworthiness of the data (Glesne & Peshkin, 1992). The rigour of these procedures also ensures the trustworthiness of conclusions (Lincoln & Guba, 1985).

2.9.3 Analysis of Data

After rigorous inquiry the qualitative researcher interprets the meaning of data (Abbott-Chapman, 1993). In qualitative research data analysis involves the systematic processing and arranging of data (Bogden & Biklen, 1992; Miles & Huberman, 1994). The first level of analysis involves detailed descriptions which are usually in the form of a narrative account. A second level of analysis “involves developing categories, themes, or other taxonomic classes that interpret the meaning of data” (Merriam, 1988, p.146). When analysing data in qualitative
research Richards (1997) talked of levering from the original data a higher level of abstraction. Richards (1997) encourages the qualitative researcher “to tease the surprises out of data and to explore the eruptions of data analysis” (p.2).

Glaser and Strauss (1967) suggest the use of constant comparative analysis to uncover relationships in data. The field researcher “constructs this evidential trail gradually, getting an initial sense of the main factors, plotting the logical relationships tentatively, testing them against the yield from the next wave of data collection, modifying and refining them into a new explanatory map” (Miles & Huberman, 1994, p.228). Data are examined for categories of phenomena and for the relationships among these categories using analytic induction and constant comparison (Zollers et al., 1999). From this higher level of analysis, hypotheses are developed to justify and explain the relationships between phenomena. A theory consists of categories, properties and hypotheses. Merriam (1988) commented, “A theory grounded in data also contains elements of control and prediction” (p.146).

The management of data is critical in qualitative research. Merriam (1988) wrote of building a logical chain of evidence. Richards (1997) suggested developing a framework from which the researcher’s thinking is growing. Because the collection and analysis of data in qualitative research is an ongoing process a framework is most helpful (Merriam, 1988). Finally, computer software programs, such as Non-numerical Unstructured Data Indexing Searching and Theorizing (NUDIST), assist the management and construction of hypotheses in qualitative research.

2.9.4 Presentation of Findings

The presentation of the final product “will depend on the theoretical perspective that is used, the goals of the researcher and the audience that the researcher wants to address” (Burgess,
In qualitative research, writing is an expressive rather than productive process (Denzin, 1994). During the writing process, the researcher moves through a stage of making sense of the field notes to the actual writing process of memo writing, making conceptual labels and drawing relationships between concepts and analytic terms. The qualitative writer is a constructionist and interpreter. The constructionist discusses emerging designs and understandings and the interpreter investigates the various meanings of the socially constructed realities (Miles & Huberman, 1994). Meaning, interpretation and representation are all inter-related in the researcher’s quest for knowledge and understanding (Stake, 1995). In the written presentation of the study, the qualitative researcher is required to be true to the data, fair to the informants and wary of the informant’s position in the setting (Phtiaika, 1994).

### 2.9.5 Generalisations from Qualitative Research

A case study is used to examine a particular phenomenon and is not a means to investigate what is usual of many (Evans, 1998). In case study research Stake (1995) refers to understandings as naturalistic generalisations. Readers construct generalisations from the given raw material. With a detailed description of the study context, readers interpret findings from the case study (Merriam, 1988).

Data from several cases are used in cross-case analysis. Merriam (1988) wrote, “An interpretation based on evidence from several cases can be more compelling to a reader than results in a single instance” (p.154). Cross case study analysis is used to establish when specific conditions occur (Miles & Huberman, 1994), to build theory (Yin, 1994) and to strengthen a theory (Glasser & Strauss, 1967).

This research used qualitative and quantitative measures to explore the inclusive education of three students with a hearing impairment. In the collection and analysis of data
multiple measures were used and a research framework and code of conduct followed. Throughout the study the thoughts and actions of the researcher were monitored and documented in the researcher diary. The adherence to these principles help to ensure the validity and reliability of findings in this research.
CHAPTER THREE

3.0 Methodology

3.0.1 Introduction

The inclusive education of students with special needs is a complex process (Bennett et al., 1997). This research examined the inclusive placement of three students with a hearing impairment using quantitative and qualitative measures (Appendix A). Qualitative measures used in each case study included educational and medical documents, participant observation, researcher and subject diaries, interviews and team meetings. Quantitative measures used in each case study included a checklist, rating scales and results from standardised tests (e.g., NSW Basic Skills Tests for Year 3 and Year 5). Data from the case studies was analysed using the constant comparative method (Glaser & Strauss, 1967). Findings from each case study identified strengths and weaknesses in the students’ inclusive placement. Weaknesses identified in the students’ inclusive placement were addressed in the students’ Individual Education Program (Winter & Van Reusen, 1997).

3.1 Student Participants

Purposive sampling was used to select the students in these case studies (Merriam, 1988.) The three students with a hearing impairment who participated in this research were enrolled in regular classes at the same neighbourhood primary school (i.e., Summerton Public School), received support from an Itinerant Teacher Hearing and were the only students with a significant hearing loss at their school.

The three students with a hearing impairment who participated in this research were Hussein Moussa, Mara Velkovski and Fatima Salem. Pseudonyms have been used for the names of participants and places in the written presentation of this research. Hussein, Mara and Fatima
come from non-English speaking backgrounds. In the educational district in which this research took place 90% of the students on Itinerant Hearing caseload and 100% of the students on the pre-school Itinerant Hearing caseload came from non-English speaking backgrounds (Carter, 2001).

Despite their hearing disability Hussein, Mara and Fatima were eager to attend their local primary school. The students’ desire to go to school with friends from their neighbourhood was vigorously supported by their parents. At school all three students used hearing technology to access the class program and participate in school activities.

Although all three students had a hearing impairment, the affect of the hearing loss differed for each student (Allen & Osborne, 1984; Liu, 1995). Hussein, who was born with Harlequin Fetus Syndrome, has a mild conductive hearing loss in his left ear and a severe permanent conductive hearing loss in his right ear. With the deterioration in hearing in his right ear, Hussein had difficulty locating the speaker in group discussions and following the teacher’s instructions in class.

Mara suffers from chronic otitis media and has a moderate high frequency hearing loss in both ears. Because of her hearing loss Mara had difficulty communicating with her peers (e.g., she spoke softly and quickly). In class, Mara rarely participated in discussions and only gave one or two word responses.

Fatima has a moderate-to-severe sensorineural hearing loss in both ears. Due to the late diagnosis of her hearing loss, Fatima enrolled in the pre-school class in a Hearing Unit. The Hearing Unit was attached to a school located some distance from her home. Following the recommendation of members of her Learning Support Team, Fatima transferred to her local school when she was in Year 2. In her first year at Summerton Public School Fatima had
difficulty interacting in group discussions, following the teacher’s instructions and satisfactorily completing her work at school.

3.2 The Researcher

In this research the key researcher is the Itinerant Support Teacher Hearing for the students with a hearing impairment. With this dual role the researcher will have the advantage of access to and acceptance at the school and yet be in a position which is not too close to school personnel.

3.3 School Setting

The three hearing-impaired students in this research were enrolled at Summerton Public School. The school is located in a busy suburb of Sydney and is classified as socio-economically disadvantaged. The majority of students at Summerton Public School lived within close proximity to the school and came from a variety of cultural backgrounds. In the suburb in which this research took place 35% of the population were born overseas (Australian Bureau of Statistics, 1996). The First Term School Census revealed that 95% of the students who were enrolled at Summerton Public School came from non-English speaking backgrounds (NSW Department of Education and Training, 2000a). Languages other than English spoken by students at Summerton Public School included Arabic, Chinese, Greek, Italian, Macedonian, Portuguese, Samoan and Vietnamese (NSW Department of Education and Training, 2000a).

Characteristics of the learning environment at Summerton Public School included quality learning programs, the pursuit of excellence by all students and the acceptance of difference. At Summerton Public School there were fifteen regular classes and four Special Education classes (Summerton Public School, 2000). By the late 1990s an increasing number of students with emotional, intellectual, vision and hearing disabilities had enrolled in regular classes at
Summerton Public School (Summerton Public School, 2000). In 1997, Summerton Public School received the *Director-General’s School Achievement Award* in recognition of the school’s student welfare program and in ‘providing a fair go for all.’ The school philosophy of ‘a fair go for all’ meant, “Understanding difference and disability, developing student responsibility, valuing every culture and building partnerships with parents and the community” (Summerton Public School, 1997a, p.1). Commitment and support from school personnel was an important aspect of Hussein’s, Mara’s and Fatima’s education at Summerton Public School.

### 3.4 Data Collection Measures

Educational documents contain valuable data on the academic, social and physical performance of students (Yin, 1994). In the examination of Hussein’s, Mara’s and Fatima’s education at Summerton Public School a number of educational documents were examined. First, half yearly and yearly school reports provided knowledge of the student’s academic and social performance at school. Second, data from the Year 3 and Year 5 *Basic Skills Tests* identified the student’s strengths and weaknesses in literacy and numeracy. Third, reports and assessments by school personnel (e.g., assessment by the Assistant Principal Hearing) highlighted the student’s special needs for support. Finally, integration and specialist support documentation revealed intervention strategies and resources which have been employed to support the needs of the student with a hearing impairment (e.g., the student’s Individual Education Program). For each case study educational documents were collected from the time of the student’s enrolment in school until the end of the study.

Medical documents revealed Hussein’s, Mara’s and Fatima’s medical history and current medical status. During this research medical reports were collected from the school nurse and from the child’s doctor/specialist doctors (e.g., Ear, Nose and Throat specialist, orthopaedic
surgeon, paediatrician, dermatologist, speech pathologist and the paediatric audiologist at Australian Hearing Services). For each case study, medical documents were collected from the time of the student’s birth until the conclusion of the study.

In the investigation of the student’s inclusive placement at Summerton Public School knowledge of the school environment is vital (Bennett et al., 1997; Villa et al., 1996). The Observation Guide (Bogdan & Biklen, 1992) (Appendix B) provided background knowledge about the school and inclusive classroom, details of the participants who were involved in the inclusive placement and evidence of school policy and practice on inclusion. The Observation Guide listed particular areas in which data should be collected and identified relevant issues to be discussed. Guidelines for the Observation Guide also reported the necessity to only collect information related to inclusion and students with disabilities. Hence, the Observation Guide completed in this research focused on the inclusive placement of the three students with a hearing impairment. Finally, throughout the research the Observation Guide was regularly updated (e.g., when changes in school policy or personnel occurred).

Research has found that teacher training, teaching experience and strategies employed in the classroom influence the success of the inclusive placement (Cook et al., 1999; Konza & Patterson, 1996; Winter & Van Reusen, 1997). The teacher survey (Appendix C) provided information about the teacher’s qualifications and teaching experience and identified teaching styles and strategies employed in the inclusive classroom (e.g., whole class, small group, individual).

Sensitivity to the needs of all participants is crucial for the successful inclusive education of students with special needs. Previous studies found that procedural and management concerns influenced the teacher’s willingness to accept the inclusive placement (e.g., size and composition
of class) (Bullough & Baughman, 1995; Guglielmi & Tatrow, 1998; Scruggs & Mastropieri, 1996). Research has also discussed the impact of cultural beliefs on student interactions and performance at school (Kretschmer & Kretschmer, 1999; Poynting, Noble, & Tabar, 1997; Sass-Lehrer et al., 1995). In this research the teacher survey (Appendix C) provided information about the students who were enrolled in the inclusive classroom (e.g., number, gender and cultural background of students in the class; relationship between hearing-impaired student and fellow classmates).

The student with special needs accesses the class program with adaptations in curriculum, instruction, assessment and support (Giangreco et al., 1995; NSW Department Education & Training, 1997-1999; NSW Department Education & Training, 1999c). In the successful education of students with a hearing impairment “it is vital to insure that schools and classrooms are user friendly” (Luetke-Stahlman, 1996, p. 16). The Program Modification Checklist (Luetke-Stahlman, 1996) (Appendix D), which has been tested with a number of public school teachers, was used to explore the school and classroom environment of the three students with a hearing impairment. In each case study the checklist investigated the hearing-impaired student’s access to school and class activities, examined the listening environment, analysed the support and resources available to the student and discussed teaching, programming and evaluation strategies used in the inclusive classroom. In each case study the researcher completed the checklist and discussed findings from the checklist with the class teacher.

In case study research, the researcher diary is an important source of data (Stake, 1995). In each of the case studies a researcher diary was maintained (Appendix E). The diary included observational notes, details of conversations with participants in the case study and reflections of the researcher. The theme or topic of the diary entry was also recorded in the researcher diary.
The attitude and perceptions of deaf and hard-of-hearing students influences the success of the inclusive placement (Malcolm, 1995). Information about the student’s attitude towards school and learning and awareness of the student’s personal interests is vital in the successful education of students with a hearing impairment (Coryell et al., 1992; Jaussi, 1991). In each case study the student’s attitude, perceptions and interests were disclosed in the student diary (Appendix F). The diaries also revealed the student’s relationship with their peers and areas of personal interest (e.g., sport, watching television, playing school). In each case study the student diary was completed the week after the first student interview. Data from the student’s diaries was used in the second and fourth student interviews.

Cook et al. (1999) and Sodak et al. (1998) reported that teacher attitudes and perceptions affected the inclusive placement. The Survey of Teacher Opinions and Perceptions (Ringlaben & Price, 1981) (Appendix G) investigated the teacher’s knowledge and perceptions of inclusion. The survey also explored the teacher’s willingness and ability to teach the student with a hearing impairment who was enrolled in their class. In the survey, a scale from 1-5 (knows very little—knows a lot) was used. From the teacher’s responses mean scores were calculated for each item. In each case study six teachers completed the Survey of Teacher Opinions and Perceptions.

When exploring the inclusive placement of students with special needs knowledge about the student’s academic and social skills, the school environment and parental support is crucial (Brill et al., 1986; Calderon et al., 1998; Gjerdingen & Manning, 1991; Stinson & Antia, 1999). The Mainstream Checklist (Nix, 1977) (Appendix H) investigated child, placement situation and family parameters. A high percentage of the targeted responses in the checklist indicated a successful inclusive placement (Nix, 1977). In each case study, six teachers completed the
checklist (i.e., marked items on the check list which applied to the student with a hearing impairment).

The Integration Rating Guide (Bunch, 1987) (Appendix I) predicts the probability of a successful inclusive placement for hearing-impaired students and identifies the necessary teacher support required to achieve that level of success. The Integration Rating Guide "evolved from a review of literature, discussion with colleagues and pilot projects in the field" (Bunch, 1987, p. 37). The six areas investigated in the Integration Rating Guide are: language arts, communication, academic subject achievement, intellectual potential, socialization and parental support. Academic and communicative areas investigated in the Integration Rating Guide included: language arts, communication, subject achievement and intellectual potential. The Socialization Rating Guide investigated the self-concept, work skills and personal behaviour of the student with the hearing impairment in the regular classroom. The Parental Support Guide investigated parental assistance and support for the student. In each case study, the six teachers who had completed the Mainstream Checklist completed the Integration Rating Guide. Teachers rated the student with a hearing impairment over a range of four quartiles. The researcher calculated the students' integration success and integration support points. The integration success rating was determined from the score ranges provided in the Integration Rating Guide (Bunch, 1987). In each case study the researcher discussed the students' success rating with teachers who completed the Integration Rating Guide.

The social skills, the self-image and the emotional development of the student with special needs affect the success of the inclusive placement (Antia & Ditillo, 1998; Bailey, 1992; Luetke-Stahlman, 1995a). The Meadow-Kendall Social-Emotional Assessment School-Age Inventory (Meadow, 1983) (Appendix J) contained 59 items which assessed the social and
emotional adjustment and self-image of deaf and hearing-impaired students. Norms based on the results of 2400 students are provided with the Assessment Inventory. In each case study, the six teachers who had completed the *Mainstream Checklist* and *Integration Rating Guide* completed the Assessment Inventory. The researcher scored and assessed teachers’ responses using given formulae and norms. The researcher subsequently discussed findings from the Assessment Inventory with teachers who participated in each case study.

Parental and student perceptions affect the success of the inclusive placement (Calderon et al., 1998). Interviewing is a tool to identify people’s attitudes and perceptions (Burns, 1997; Powney & Watts, 1987). In this research interviews provided in-depth knowledge of the parent’s and student’s attitude and perceptions towards the inclusive placement. With approval from the participants all interviews were recorded on a cassette audio-tape recorder. The use of technology provided an accurate record of the interview (Thompson, 1996). In each case study structured and semi-structured interviews were used (Burns, 1997; Limerick et al., 1996). The initial student (Appendix K) and parent interviews (Appendix M) focused on general topic areas (e.g., What do you like doing at school? Tell me about Fatima when she was a baby.) In subsequent student and parent interviews structured and more explicit questions/issues were discussed. The second, third and fourth student interviews (Appendix L) were based on the *Awareness Survey Questions* by Malcolm (1995). Information from the survey helped teachers employ effective intervention strategies and programs for the deaf and hard-of-hearing student who was enrolled in their class (Malcolm, 1995). The second parent interview (Appendix N) was based on the *Parent Survey* used by Meadow-Orlans et al. (1997). The *Parent Survey* was designed to assist deaf and hard-of-hearing students. Areas investigated in the survey included: the student’s background, special services, sources of help, the child’s behavioural
characteristics, the child's language and communication, parental response to the diagnosis of deafness and family background information.

At the annual Review Meeting, members of the Learning Support Team monitor the inclusive placement of the student with special needs (Jones & Swain, 1999). Commitment and respect among members of the Learning Support Team are necessary for the successful education of students with special needs (Bennett et al., 1997; Wood, 1998; Zollers et al., 1998). The Collaborative Team Dimension Scale (Luetke-Stahlman, 1995b) (Appendix O) was designed to assess the quality of educational team meetings. In each case study the Collaborative Team Dimension Scale examined the organisation and conduct of the hearing-impaired students' Review Meeting. Participants at the Review Meeting (i.e., the class teacher, support teacher, school counsellor and the student's mother/father) completed the Collaborative Team Dimension Scale. Participants rated items on a scale from 1-5 (strongly agree to strongly disagree).

3.5 Data Collection Procedures

Before the first case study commenced, approval from relevant institutions and participants in this study was obtained. First, approval for this research was obtained from the University of Western Sydney Ethics Committee and the New South Wales Department of Education and Training. Second, after discussing the purpose and conduct of the study, Hussein, Mara and Fatima and their parents gave written approval for this research. The parents also provided written authorisation for the researcher to obtain copies of their child's medical reports. Third, approval was obtained from the teachers who participated in the case studies.

In each case study a number of procedures ensured the anonymity of participants and the confidentiality of data. First, pseudonyms were used in the written presentation of this research (e.g., the name of students, school and medical personnel). Second, because of the sensitive
issues discussed during interviews and support meetings, the researcher personally transcribed all interviews and formal discussions in each case study. Third, all printed documents were kept in a locked filing cabinet in the researcher’s home study. Finally, research data saved on computer disc required the use of a password.

3.5.1 Conduct of the Study

Each case study was completed at Summerton Public School over a two-year period. Before the first case study commenced the Observation Guide was established. Throughout this research the Observation Guide was regularly updated. In the first term of each study relevant educational and medical documents were reviewed, a specific literature review for the study was completed and a researcher diary for each student commenced.

The following data collection procedures were implemented in the first year and then repeated in the second year of the case study.

During the first term of this research teachers completed the Teacher Survey (Appendix C), the Survey of Teacher Opinions and Perceptions of Mainstreaming (Appendix G), the Mainstream Checklist (Appendix H), the Integration Rating Guide (Appendix I) and the Meadow-Kendall Social-Emotional School-Age Assessment Inventory (Appendix J). The completed forms were returned to the researcher’s pigeonhole at school. During Term 1 and 2 the researcher completed the Program Modification Checklist (Appendix D).

In the second term of each case study the researcher conducted the first student interview (Appendix K in Year 1 and Appendix L Interview 3 in Year 2). The student’s family, personal areas of interest and knowledge of the school environment was discussed at this interview. At the end of the interview the student was asked to keep a diary for one week (Appendix F). After the first student interview the student’s parents were interviewed (Appendix M in Year 1 and
Appendix N in Year 2). At this interview the student’s medical and educational background was discussed.

In the third term of each case study the second student interview was completed (Appendix L Interview 2 in Year 1 and Appendix L Interview 4 in Year 2). During this interview the student’s attitude towards deafness and the student’s educational and employment aspirations were discussed. Data from the student’s diary was also discussed at this interview.

After the second student interview members of the Learning Support Team reviewed the student’s educational placement. At the Review Meeting the student’s inclusive placement and special needs for support were discussed. With approval from all participants the meeting was recorded on a tape-recorder. After the Review Meeting members of the Learning Support Team completed the Collaborative Team Dimensions Scale (Appendix O).

At the conclusion of the case study, members of the Learning Support Team (i.e., the principal, class and support teachers and the student’s parents) discussed short and long-term goals for the student. The school principal was also provided with a written report of the findings for each case study.

3.6 Data Analysis

In this research the inclusive placement of three students with a hearing impairment was explored using the constant comparative method of data analysis. In each case study the impact of the five variables on the student’s education was examined using qualitative and quantitative data. The influence of mediator variables on the five variables (i.e., strategies employed by persons involved in the inclusive process) was also investigated in this research (Figure 3).
Figure 3. Analysis of the five variables and mediator variables on the inclusive placement.

3.6.1 Analysis of the Inclusive Placement

For each case study understandings and trial hypotheses were developed and refined to establish a theoretical framework. The framework described, discussed and examined the impact of the five variables on the inclusive placement (i.e., the student’s academic performance, social competence and communicative and interactive performance in class and group activities). In the examination of the student’s inclusive placement, areas of achievement and weakness were identified and prioritised. Priorities were determined by counting the number of times needs or concerns occurred. Data from the three case studies were analysed to establish common areas of concern.
3.6.2 Validity

In qualitative case study analysis, validity is based on the researcher's experience of the phenomenon investigated (Merriam, 1988). Strategies which ensure internal validity in qualitative research include triangulation of data sources, trustworthiness of data collection and analysis and the use of an audit trail (Glesne & Peshkin, 1992; Richards, 1997; Richardson et al., 1996). In this research multiple sources of data were collected and emerging understandings were analysed over a two-year period. The prolonged period in the field enhanced the validity of the findings in this research. Throughout this research, the researcher conducted an audit trail, documented the assumptions and viewpoints held by the key researcher, discussed data and findings from the case studies with participating teachers and maintained a research diary. The researcher also discussed findings from the case studies with colleagues in research and education.

3.6.3 Reliability

The reliability of findings in qualitative research is enhanced by attention to rigour, (Bogdan & Biklen, 1992; Dey, 1993). The following strategies enhanced the reliability of findings in this research. First, a number of measures and strategies were used in the collection and analysis of data. In each case study six teachers completed the Perceptions and Opinions of Teachers about Mainstreaming, the Integration Rating Guide, the Mainstream Checklist and the Meadow-Kendall Social-Emotional School-Age Assessment Inventory. Second, the researcher's qualitative research skills were refined prior to the commencement of this research. During 1997 the researcher completed Qualitative Research Methods in Education I and II at the University of Western Sydney. Third, for each case study the researcher conducted an audit trail which
described data and methods of data collection. Finally, the researcher's position and assumptions were fully explained in the written presentation of the research.
CHAPTER FOUR

4.0 Case Study One

4.0.1 Introduction

The student in the first case study is Hussein Moussa. Hussein was born with a rare medical condition called Harlequin Fetus Syndrome. As a result of personal courage, support from his family and medical intervention, he has defied medical predictions for his life span. With appropriate educational intervention Hussein has attended Summerton Public School which is his local school, from Kindergarten to Year 6. This case study provides details of Hussein’s early life, a discussion of participants who were involved in his inclusive education and an examination of his inclusive placement, giving attention to when he was in Year 4 and Year 5.

The conclusion of this case study represented the beginning of a new and challenging stage in Hussein’s education (i.e., his transition to high school). Hussein and his mother were determined that he would go to the same high school as his friends and family members. At high school Hussein would employ skills and strategies he had acquired in primary school. Support networks, which included medical and educational personnel, members of the family and his peers, would continue to be an important aspect of Hussein’s education at secondary school.

4.1 Background Data for this Case Study

Background information on Harlequin Fetus Syndrome, the impact of a unilateral hearing loss and the implications of Lebanese culture is necessary for this study.

4.1.1 Harlequin Fetus Syndrome

Harlequin Fetus Syndrome is an autosomal recessive disorder which has a high rate of occurrence among consanguineous families (Judge & Harper, 1996). Following pre-natal
diagnostic testing, parents of children with Harlequin Fetus Syndrome need to be informed of the implications of this condition (Judge & Harper, 1996).

Harlequin Fetus Syndrome is an extreme form of ichthyosis (Potparic & Gibson, 1995). Ichthyosis refers to, “Any of several specific hereditary or congenital skin disorders” (Wynbrandt, 1991, p.171). Harlequin Fetus Syndrome occurs equally in boys and girls and has no racial predilection (M. Sawyer, personal communication, May 5, 1998). Harlequin Fetus Syndrome is “A rare and lethal disorder characterised at birth by thick, hardened plates of skin covering the entire body, cracked along lateral fissures where folds of skin would normally appear” (Wynbrandt, 1991). The name Harlequin Fetus Syndrome is derived from the diamond shaped sections of cracked skin so that the skin has the appearance of a harlequin suit.

As a result of Harlequin Fetus Syndrome, the body is covered with thick horny scales, the facial features are distorted, the eyes obscured, the lips everted, the scalp feels boggy and the nose and ears are tethered. Eyelashes and eyebrows may be present and hair on the scalp maybe sparse. The digits may be well formed and are claw like. Due to poor circulation in the hands there may be a loss of part of the digits (Judge & Harper, 1996). Although there are numerous physical symptoms related to Harlequin Fetus Syndrome, there is no known intellectual disability with this condition (Levy, 1999; Roberts, 1989).

Harlequin Fetus Syndrome has a high mortality factor (Levy, 1993; Roberts, 1989). Babies born with Harlequin Fetus Syndrome usually die within days of birth (Rogers & Scarf, 1989). This is the current prognosis for babies born with Harlequin Fetus Syndrome (M. Sawyer, personal communication, August 10, 2000). Infant death occurs within the first few weeks after birth as a result of ventilation and feeding problems (Potparic & Gibson, 1995). Breathing difficulties occur due to the restriction of the baby’s chest movement and feeding difficulties
occur as a result of ineffective sucking by the young infant (Judge & Harper, 1996). With intensive medical intervention, survival with Harlequin Fetus Syndrome is now possible (Rogers & Scarf, 1989). Hussein (i.e., the subject in the first study) is one of the few worldwide known survivors with this condition (Levy, 1999).

4.1.2 Unilateral Hearing Loss

At school students with a unilateral hearing loss rely on the hearing they have in their good ear. A report by the Victorian Deaf Society (1989) noted that due to their imbalanced auditory signal students with a unilateral hearing loss often experience problems in class and group activities. Anderson and Matkin (1991) found students with a unilateral hearing loss have difficulty locating the speaker in a large group and listening when there is a background noise. Langbien (1994) reported students with a unilateral hearing loss are easily distracted, have difficulty following the teacher’s instructions and have problems with peer relationships. Bess and Tharpe (1986) found students with a unilateral hearing loss became tired and had discipline problems in class after a sustained period of active listening.

Students with a unilateral hearing loss benefit in the classroom from the use of hearing technology and appropriate teaching strategies (Langbien, 1994). Hearing technology such as an Easy Listener FM device transmits sound from the speaker to the listener without interference from background noise (Lewis, 1995). Strategies which assist the student with a unilateral hearing loss at school are preferential seating, identification of the speaker in group discussions and individual instructions during examinations (Australian Hearing Services, 1998).

4.1.3 Lebanese Culture

The Muslim Lebanese family is a close and caring unit. Following traditional values, many Muslim Lebanese families encourage their children to marry within the family (Reda,
In the Muslim Lebanese community babies are regarded as gifts of God. Hence, Muslim Lebanese families usually have a number of children. Furthermore, as a result of their cultural beliefs, Muslim Lebanese couples often ignore medical advice. Muslim Lebanese parents have the personal belief that everything will be fine for their child born with special needs (Moussa, 1997). In the fulfilment of their family obligations Muslim Lebanese parents believe their God, Allah the merciful and compassionate, will always protect them (Encarta, 1997).

It is part of Lebanese culture that boys from a Lebanese background usually make friends with other boys from their culture (Reda, 1999). Lebanese boys who participated in the study by Poynting et al. (1997) commented, “It’s just that we always stick by each other. Be there when others like need you” (p.11). This friendship and camaraderie was part of what being Lebanese was all about. The study by Poynting et al. (1997) further revealed that Lebanese boys believed their culture influenced all aspects of their life (e.g., family values, the superior roles of Lebanese males). As a result of these beliefs and values, Lebanese boys often adopted stereotype roles assumed to be part of their culture (e.g., Lebanese boys are poor academic students).

4.2 Hussein’s Case History

In the examination of Hussein’s inclusive education, knowledge of his struggle against the medical odds was crucial. Data in this study revealed that Hussein’s attitude towards learning at school was directly related to experiences from his personal life (e.g., his aggressive approach to class tests and his persistence in discussions even though the basis of his response was incorrect).

Hussein was born on the 22nd of September 1986. Hussein’s family consists of his mother and father, an older sister Rima and an older brother Ali. Mr and Mrs Moussa are divorced. Mr Moussa lives with Rima and her husband Kassem, and their two children Nina and Alese. Mrs
Moussa lives with Hussein and Ali. Both sets of Hussein’s grandparents are deceased. In Lebanon Mr and Mrs Moussa went to the village high school. Mrs Moussa completed her high school education which was the equivalent of Year Twelve in Australia. Mr Moussa completed high school to the equivalent of Year Nine in Australia. Mr and Mrs Moussa married in Lebanon and then migrated to Australia. Rima and Ali both completed their Higher School Certificate (Year Twelve) in Australia.

Mr and Mrs Moussa had five children. Hussein was the third Harlequin Fetus Syndrome child born to his consanguineous parents (Rogers & Scarf, 1989). Two children born to the Moussa’s (a girl and a boy) who were born after Ali and before Hussein, died as a result of Harlequin Fetus Syndrome. With early intensive medical intervention Hussein has survived.

The first three months of Hussein’s life were a struggle against the odds. Mrs Moussa was constantly told he was going to die. “I didn’t know if he were going to stay alive. I was very upset,” said Mrs Moussa (Moussa, 1997, p.1). Under much personal pressure Mrs Moussa sought comfort and assistance from her religious beliefs. During the first interview Mrs Moussa revealed that she had dreamed that if she changed Hussein’s name he would not die. “I don’t know if you believe that but I believe” (Moussa, 1997, p.9). Accordingly, Mrs Moussa changed her son’s name from Bilal to Hussein. With knowledge that further medical intervention was not possible for her son’s serious and deteriorating condition, Mrs Moussa sat and prayed with her young son till midnight. Mrs Moussa wanted closure for her son, for him to close his eyes and die (Moussa, 1997).

At midnight, feeling exhausted and mentally tired Mrs Moussa went home. Early next morning Mrs Moussa received a message to return to the hospital. Her son had survived the night and was very much alive. After receiving a blood transfusion (500ml of Mrs Moussa’s blood),
Hussein began to make immediate improvement. At the end of six months of intense medical intervention, Mrs Moussa took Hussein home for the first time. "They told me it was hard for you to look after him. I said I will try. If I can do it it's all right. It was a very hard time with Hussein. Because he can't say what's wrong with him." (Moussa, 1997, p.5). As a result of problems with Hussein's skin, other organs in his body have been affected and required medical intervention (Levy, 1991). Medical complications and treatment included the removal of his left kidney, septic arthritis in his left hip (including the destruction of the left femoral head), anaemia, loss of the tip of the left fifth digit and problems with his hearing.

During the first parent interview (1997) Mrs Moussa revealed that Hussein could communicate in Arabic and English like her other two children. When Hussein was five years old Mrs Moussa discovered her young son had difficulty responding to her questions. Hussein's mother remarked, "I asked him something he would not do anything. I cry. I worried" (Moussa, 1997, p.7). Confused by the fluctuations in her son's hearing Mrs Moussa consulted her local doctor. Hussein was subsequently referred to an Ear, Nose and Throat specialist. The specialist found that Hussein had a mild hearing loss in his left ear and a moderate-to-severe hearing loss in his right ear. The paediatric audiologist at Australian Hearing Services confirmed Hussein's hearing loss (Moussa Australian Hearing Services Report, 1994). Although there was no history of hearing loss in the family Mrs Moussa accepted and supported her son's special hearing needs.

Each year since his birth Hussein's on-going medical needs were re-assessed by his paediatrician, dermatologist and other medical specialists. This was essential as Mrs Moussa was sometimes unaware of her young son's medical needs (Moussa, 1998). There was a distant relationship between Hussein and his doctors. The dermatologist said, "They would say he was
fine. When he came in we would have nice little chats about his school awards. I don’t touch his skin” (M. Sawyer, personal communication, May 5, 1998). During consultations with Hussein’s doctors Mrs Moussa adopted a passive role. For the present she had no complaints because Hussein looked happy and was fine (Moussa, 1998).

After overcoming many challenges in his life Hussein enrolled at his local pre-school in 1993. Unwilling to accept a special placement for her son, Mrs Moussa with the assistance of Hussein’s pre-school teacher, visited various schools in the local neighbourhood (Moussa, 1998). After meeting the principal at Summerton Public School, Mrs Moussa’s search was over. The principal commented, “As soon as we said we would take him she said she would not look anywhere else” (Wallace, 2000, p.2). At the end of Hussein’s first year at his local school (1993) Mrs Moussa wrote the following comment on Hussein’s Integration Program Evaluation:

He is very pleased to come to school, to play with the children, to share with different activities, to go with them on excursions. He is doing well at school as a normal child.

As parents we recommend to enrol our child in a regular class. (p.4).

From Year 4 to Year 6 Hussein had major problems with balance and walking at school (Moussa Review Meeting, 1998; Levy, 1999). These difficulties were particularly noticeable when Hussein walked up and down stairs or when he stood on the same spot for even a short period of time. In Year 4, Five and Six Hussein’s classrooms were located on the first floor of the building. In July 1999, Hussein had screws medically inserted in both knees to improve his balance and mobility.

When Hussein’s transition to high school was discussed, Mrs Moussa was hopeful that once again her son could attend the school of his choice. At the annual Review Meeting (1999) Mrs Moussa revealed that her son would love to go to the same high school as his friends and his
cousins. She remarked, “You know for Hussein education he must feel happy the class he’s got. Otherwise he won’t work” (Moussa, 1998, p.9). Happiness at school is crucial for all students.

In conclusion, there have been many dramatic periods in Hussein’s life. With the support of his mother and family and medical and school personnel he is alive today and attending the school of his choice. At Summerton Public School Hussein had the opportunity to go to school with friends from his local neighbourhood and complete the same learning activities as his peers.

4.3 Profile of the Participants and the Learning Environment

In the examination of Hussein’s inclusive placement, knowledge about the school environment (i.e., the students, teachers and attributes of the classroom) is essential.

4.3.1 Hussein Moussa

Hussein is a sensitive, inspirational, mature young man who has a great sense of humour. (Moussa, 1998). His paediatrician commented, “I must say I do feel quite privileged seeing this young man and seeing how well he has performed. He is a credit to himself and to his mother who has been unstinting in her care of him” (Levy, 1998, p.1). Hussein’s teacher in Year 6 remarked, “Hussein was an inspiring young man who was always willing to take on new challenges” (Moussa Review Meeting, 1999).

At school, Hussein is a popular student and has a close network of caring and supportive friends. He enjoys participating in class and school activities and has represented the school in cricket and touch football. In spite of his unique medical condition he wants to be treated just like any other student in the class and at school (Moussa, 1993). His paediatrician noted, “His medical needs should be taken into consideration, but in every other respect this young man should be treated as normal” (Levy, 1991).
One of Hussein’s favourite past-times was reading, especially books by Roald Dahl. Another major source of enjoyment for Hussein was playing and watching sport. At home Hussein played handball with his brother Ali, tennis with his next-door neighbour and cricket with the children who lived in the same unit block. Hussein has represented his school in cricket and touch football teams. On the weekend Hussein enjoyed watching football games on the television and at local playing fields and listening to the radio.

Despite Hussein’s limited contact with deaf or hard-of-hearing people he comfortably identified with the group of people who were hard-of-hearing (Moussa 2nd Student Interview, 1997). Hussein believed with personal application and motivation anyone could do well at school and find work in most jobs. In reference to his Higher School Certificate Hussein remarked, “I would like to give it my best shot. I would like to get 80 and up!” (Moussa 4th Student Interview, 1998, p.6). After school and perhaps university, Hussein has indicated that he would like a job with computers. With happy memories of primary school, Hussein is looking forward to going to high school, “It is going to be mad” (Moussa Researcher Diary, 1999, p.32).

As one stage in Hussein’s learning comes to a close and another exciting period begins, knowledge of ‘Hussein the person’ remains a crucial aspect of his successful inclusive education. Understanding Hussein’s thoughts and feelings was often difficult because of his quiet disposition and his reluctance to show his emotions.

### 4.3.2 Mrs Moussa

Mrs Moussa was a quiet, caring and positive mother who was reluctant to share her concerns and fears about her young son. During the second parent interview (1998) Mrs Moussa commented, “I keep a lot to myself. I get sad very frightened but I don’t let Hussein know it” (p.10). Mrs Moussa believed that looking after Hussein was not a burden but rather her
responsibility as his mother. When talking about family support Mrs Moussa remarked, “I don’t need help but they love Hussein very much” (Moussa, 1998, p.7). Contrary to this last statement, data in this study revealed there were times when Mrs Moussa did require personal assistance (e.g., at the high school transition meeting).

Mrs Moussa has faith in God and in the doctors who support her young son (Moussa, 1997). The principal at Summerton Public School noted, “The Moussa’s think Dr. Levy is God. He gave them back their precious son, he saved Hussein” (Moussa Researcher Diary, 1997, p.1). Despite Hussein’s reliance on medical personnel, data in this study revealed that Mrs Moussa did not always believe her son’s doctors. When the prognosis was grim for Hussein, Mrs Moussa commented, “All the doctors said he was going to die too because the other two didn’t stay alive. And he still much alive.” (Moussa, 1998, p.4). With the utmost respect for her son’s doctors, Mrs Moussa never blamed medical personnel when complications occurred after operations on her young son. In a discussion of Hussein’s hip operation, Mrs Moussa stated, “The hip infection, I didn’t blame Dr. Sawyer because she try her best for him” (Moussa, 1998, p.4).

Over the years Mrs Moussa has developed a detailed understanding of her son’s medical condition. At Hussein’s annual Review Meeting (1997) Mrs Moussa declared, “I know maybe more than you and everybody about Hussein because he is my own” (p.1). Accessing this expert knowledge often meant asking Mrs Moussa the appropriate question. For instance after queries about Hussein’s frequent visits to the toilet, Mrs Moussa informed members of Hussein’s Learning Support Team that her son only had one kidney (Moussa Review Meeting, 1997).

From the time of his birth Mrs Moussa’s support for her son has never wavered. Without complaint she has attended meetings at school, liaised with a variety of doctors and participated in educational and medical research studies. Despite Mrs Moussa’s expert knowledge of her
son's condition, data in this study revealed there were times when Mrs Moussa did not understand occurrences in her son's life (e.g., the removal of Hussein's kidney). Therefore, support for Mrs Moussa was a critical aspect of Hussein's successful inclusive education.

4.3.3 Hussein's Class Teacher and Support Teachers

In the examination of Hussein's inclusive education, knowledge of his teachers' opinions and perceptions towards inclusion was essential. The six teachers who participated in this case study completed the *Survey of Teacher Opinions and Perceptions* (Ringlaben & Price, 1981) (Appendix G). Findings from the survey are shown in Figure 4. All teachers surveyed in this study indicated that they had only a basic understanding of NSW Department of Education and Training policy on inclusion (Item 1) and that they felt unprepared for implementing inclusion in their classroom (Item 2). Winter and Van Reusen (1997) found that teachers were often unaware of recommended guidelines for teaching students with special needs. The need for appropriate knowledge and preparation to teach students with special needs was noted in Summerton Public School's response to the Integration/Inclusion Feasibility Study (1997). Most of the teachers surveyed in this study were willing to have a child with special needs in their classroom (Item 3) and most teachers felt they had the ability to teach students with a hearing impairment (Item 4). Sodak et al. (1998) reported that teachers didn't mind having students with a hearing impairment in their classes. Finally, all teachers in this study felt confident that they could be flexible and open-minded when working with other educational personnel (Item 5).

In summary, the only variations in the teachers' responses to the *Survey of Teacher Opinions and Perceptions* were for items 3 and 4. These items involved the willingness and ability of teachers to teach hearing impaired students who were enrolled in their class.
Figure 4. Survey of the teachers' opinions and perceptions of inclusion in Case Study One (Ringlaben & Price, 1981).

In the discussion of Hussein's inclusive education, knowledge of the qualifications and teaching experience of his teachers was necessary (Appendix C) (Table 2). Both class teachers in the case study (Teacher 1 and Teacher 5) had a degree in Education, had taught exclusively at this local school and had limited teaching experience. Teacher 4 who trained to be a high school science teacher, had taught for eleven years in a high school and three years in the primary school. Teacher 2 and Teacher 6 supplemented their tertiary education with a Diploma in Education. Teacher 3 had taught classes from Kindergarten to Year 6 for seventeen years and then after re-training taught students with a hearing impairment from Kindergarten to Year Twelve for the last eight years. Teacher 3 has a Master of Education and is the only participant in this case study who had Special Education training. Villa et al. (1996) found that most teachers in the regular classroom did not have training in special education.
Table 2

Teacher Information in Case Study One

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Qualifications</th>
<th>Number of years teaching</th>
<th>Grades taught</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bachelor Education</td>
<td>7</td>
<td>Predominantly 4 – 6</td>
</tr>
<tr>
<td></td>
<td>(Primary)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Bachelor Arts</td>
<td>29</td>
<td>7-12 English &amp; History;</td>
</tr>
<tr>
<td></td>
<td>Diploma Education</td>
<td></td>
<td>K-6 Library</td>
</tr>
<tr>
<td>3.</td>
<td>Graduate Diploma (Hearing)</td>
<td>24</td>
<td>K-6 General classroom;</td>
</tr>
<tr>
<td></td>
<td>Master Education</td>
<td></td>
<td>K-12 (ISTH)</td>
</tr>
<tr>
<td>4.</td>
<td>Bachelor Education</td>
<td>14</td>
<td>7-11 Science;</td>
</tr>
<tr>
<td></td>
<td>(Science)</td>
<td></td>
<td>K-6 Community Language</td>
</tr>
<tr>
<td>5.</td>
<td>Bachelor Education</td>
<td>7</td>
<td>Predominantly 4 – 6</td>
</tr>
<tr>
<td></td>
<td>(Primary)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Bachelor Arts</td>
<td>5</td>
<td>K-6 Community Language</td>
</tr>
<tr>
<td></td>
<td>Diploma Education</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.3.4 Classroom Environment

Knowledge about the classroom environment was vital in the discussion of Hussein’s education at Summerton Public School. In both years of the study, Hussein’s classroom was carpeted and quite spacious and was located on the first floor in a brick building. In the first year of the research the students’ desks were arranged in cluster groups, which made a semi-circle shape and faced the chalkboard. In the second year of the study the student desks were arranged in three rectangular blocks, which faced the chalkboard. Finally, in both years of the study Hussein sat at the front of the middle block (with his best listening ear closest the teacher) and next to Mahmoud, who was his best friend at school.
All teachers who participated in the study used a variety of teaching strategies in the classroom. These strategies included whole group, team teaching, small group and individual instruction.

4.3.5 Class Members

In the investigation of Hussein’s inclusive placement knowledge of his classmates was important. A profile of the students in both years of the case study is shown in Table 3. In both years of the study most students in Hussein’s class came from non-English speaking backgrounds, with a predominant number of students from an Arabic background. Teachers who participated in the study referred to students in the class academically as a mixed bag and socially as some real characters. In both years of this study teachers made reference to the challenging behaviour exhibited by boys in Hussein’s class. The behaviour and demanding nature of Lebanese boys was reported by Poynting et al. (1997) and Wallace (2000).

Table 3

<table>
<thead>
<tr>
<th>Research year</th>
<th>Students in Class</th>
<th>Country of origin</th>
<th>Teacher comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
<td>Arabic</td>
</tr>
<tr>
<td>Year 1</td>
<td>16</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 2</td>
<td>19</td>
<td>9</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.4 Exploring Hussein’s Inclusive Education

With an understanding of the school environment, the five variables which influenced Hussein’s education at Summerton Public School have now been investigated in this study.

4.4.1 How Successful is Hussein’s Inclusive Placement?

During this case study the Year 4 and Year 5 class teacher completed the Bunch (1987) Integration Rating Guide (Appendix I). Hussein’s Integration Rating Success score (i.e., his total score for the test) placed him in the highest level. His Integration Support Points score (i.e., his Language Arts and Communication scores) placed him in the second highest level. Using criteria stipulated in the Integration Rating Guide, Hussein’s inclusive placement was considered successful (i.e., in the regular classroom Hussein would succeed in all subjects with specialised assistance on a regular basis).

4.4.2 An Accurate Assessment of Hussein’s Inclusive Education

Mrs Moussa is happy with her son’s education because ‘he is doing fine at school’. Quantitative data from the Integration Success Rating Guide also revealed Hussein was successful at school. Unfortunately both perspectives only provided an impression of Hussein’s inclusive placement at Summerton Public School. In the examination of Hussein’s inclusive education a more in-depth and accurate understanding is required. Consequently, for this study a data collection tool which used quantitative and qualitative measures was designed to examine Hussein’s inclusive placement. This instrument examined the five variables which influenced Hussein’s inclusive education (e.g., his academic, social and physical performance, the school environment and family support). These variables are discussed in the following section of this study.
4.4.3 Variable One (Academic Performance)

Hussein enjoyed being actively involved in his learning environment at school. In his personal diary Hussein wrote, “Today we had reading for 2 hours. And the whole day was great” (20.09.1998). There were also times when Hussein was not impressed or interested in learning at school. “Today was a boring day because we had stupid subjects” (23.09.1997). His diary further revealed that that homework was a priority in Hussein’s life. In the second parent interview Mrs Moussa remarked, “He works very hard on his homework. He spends one to two hours each night. He likes reading, doing mathematics and doing projects” (Moussa, 1998, p.4).

At school Hussein completed the same work and participated in the same activities as his class peers. He always enjoyed class excursions and field trips (e.g., the Year 6 excursion to Canberra and the environmental impact study of the local creek). Similarly, Hussein had the personal expectation that his work would be assessed using the same objective measures as his classmates. The use of different measures or criteria would have been unacceptable and an insult to Hussein (Moussa 1st Student Interview, 1997). Thorley et al. (1995) reported the necessity for students with a hearing impairment to be assessed in the same manner as their hearing peers.

4.4.3.1 Hussein’s Personal Report Card

In the first student interview (1997) Hussein reported that he was going well at school, especially in mathematics. “I like working with numbers. It’s so interesting” (Moussa 1st Student Interview, 1997, p.3). He was also pleased about his progress in Spelling, Human Society in the Environment and Science. During the second and third student interviews (1997, 1998) Hussein revealed that he had high academic expectations for himself. For instance at high school he would like to do three unit mathematics for his Higher School Certificate.
Although a keen reader, Hussein thought an area of personal weakness was the completion of comprehension activities. Hussein equated satisfactory results with the achievement of a perfect score. Other areas of weakness identified by Hussein were his ability to understand the teacher’s instructions and his participation in group and class conversations. Hussein remarked, “I need to pull up on my listening side, so I know what is going on in the classroom,” (Moussa 1st Student Interview, 1997, p.6). These areas of personal weakness were all related to his hearing loss.

4.4.3.2 The Teacher’s Thoughts on Hussein’s Academic Performance

Before Hussein received specialist hearing support (Term 4, 1994) his academic performance at school was unsatisfactory (Moussa Hearing Assessment Report, 1994). In Year 1 the class teacher noted that Hussein had difficulty listening in class situations, in handwriting, in visual art and in physical education lessons (Moussa School Report, 1994). All of these difficulties were directly related to his medical condition. From Year 2 onwards, Hussein’s teachers reported that he worked hard, tried his best and performed at better than grade level for most subjects (Moussa School Report, 1995-1999).

In Year 3 the teacher noted that Hussein was a good student in mathematics and spelling but needed to improve in reading and writing (Moussa School Report, 1996). In his Year 3 Basic Skills Test Hussein scored mid band three for the Literacy and Numeracy tests (Table 4). Areas of weakness in the Literacy Test were qualities of non-factual writing and grammar. Areas of weakness in the Numeracy test were fractions, money combinations and properties of 2D/3D shapes.
Table 4

The Percentage of Students Across the State Achieving Each Skill Band in Literacy and Numeracy

<table>
<thead>
<tr>
<th></th>
<th>Skill band 1</th>
<th>Skill band 2</th>
<th>Skill band 3</th>
<th>Skill band 4</th>
<th>Skill band 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy</td>
<td>17%</td>
<td>19%</td>
<td>26%</td>
<td>21%</td>
<td>17%</td>
</tr>
<tr>
<td>Numeracy</td>
<td>11%</td>
<td>17%</td>
<td>24%</td>
<td>24%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Note. From NSW Department Education and Training, Year 3 Basic Skills Test, 1996.

In Year 4 the class teacher commented that Hussein’s reading had improved in fluency and comprehension and that he had achieved some excellent results in mathematics (Moussa School Report, 1997). The Year 4 teacher also reported that Hussein enjoyed actively participating in classroom activities (e.g., discussions and debates) and that he had satisfactorily completed all assignments in Science and Human Society in the Environment.

In Year 5 the teacher noted that Hussein was concerned about the standard of his work (i.e., his academic performance at school) (Moussa Review Meeting, 1998). In his Year 5 report (1998) the teacher disclosed that Hussein achieved great results in mathematics, read fluently and with understanding and wrote competently in all text types with the assistance of the computer. In the Year 5 Basic Skills Test Hussein scored mid band 4 for the Literacy Test and high band 4 for the Numeracy Test (Table 5). Areas of weakness in the Literacy Test were factual writing, interpreting whole texts, labels and headings and grammar. Areas of weakness in the Numeracy Test were number patterns, probability and measurement of regular and irregular shapes.
Table 5

The Percentage of Students Across the State Achieving Each Skill Band in Literacy and Numeracy

<table>
<thead>
<tr>
<th></th>
<th>Skill band 1</th>
<th>Skill band 2</th>
<th>Skill band 3</th>
<th>Skill band 4</th>
<th>Skill Band 5</th>
<th>Skill band 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy</td>
<td>2%</td>
<td>7%</td>
<td>16%</td>
<td>28%</td>
<td>27%</td>
<td>20%</td>
</tr>
<tr>
<td>Numeracy</td>
<td>1%</td>
<td>5%</td>
<td>15%</td>
<td>28%</td>
<td>28%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Note. From NSW Department Education and Training, Year 5 Basic Skills Test, 1998.

When Hussein was in Year 6, the format and content of student reports changed at Summerton Public School (NSW Department of Education and Training, 1996a). Students were assessed as working towards or having achieved designated learning outcomes. For each outcome there were associated competency indicators. In his Year 6 yearly report (1999) the teacher commented that Hussein was working at Stage Three Outcomes for English and that he was working towards Stage Four Outcomes for mathematics.

4.4.3.3 Academic Support Strategies

Hussein participated in the same activities and completed the same work as his peers. He accessed the class program with specialised assistance (e.g., an integration aide), the implementation of appropriate teaching strategies (e.g., preferential seating) and modifications to student learning outcomes (e.g., because of his clawed fingers he writes in foundation printing and not cursive handwriting).

4.4.3.4 Analysis of Academic Performance

From Kindergarten to Year 2 Hussein experienced a variety of academic problems at school. He had difficulties listening and following instructions in class and he had problems
interacting with his peers. From Year 3 to Year 6 Hussein has made good academic progress at school, especially in mathematics. In Year 6 Hussein was working towards Stage Four outcomes in mathematics whereas most of his peers were working towards Stage Three outcomes. By the time of Hussein’s transition to high school, data in this study revealed that he was a motivated and responsible student, who had high academic expectations.

4.4.4 Variable Two (Personal/Social Performance)

When Hussein enrolled in Kindergarten at Summerton Public School he had a negative relationship with many of his peers. For instance, in game activities he often played the monster. The school principal revealed that Hussein was conscious of being rejected by his peers (Moussa Review of Student Placement, 1993). His Year 1 teacher noted, “Initially gains were made towards Hussein’s acceptance but then he would meet students from other schools or new students came to the school. Things were very difficult for him” (Moussa Review Meeting, 1994). With time, an informed school environment and the support of his friends, Hussein was gradually accepted by everyone in the Summerton school community (Moussa Review Meeting, 1995-1996; Moussa, 1998). Hussein’s Arabic teacher believed Hussein’s cultural belief system made it is easier for the young student with special needs to establish positive relationships with his peers (Reda, 1999). The school principal remarked, “It is the nature of Lebanese kids that they are very accepting of one of their own” (Wallace, 2000, p.3).

4.4.4.2 Hussein the Young Man

Hussein is a confident, responsible, independent and mature student (Moussa Collaborative Team Scale, 1997-1999; Moussa School Report, 1996-1999, Moussa Mainstream Checklist results, Moussa Meadow-Kendall Inventory results). In coming to terms with his many physical disabilities Hussein has showed great maturity. The school principal revealed that
Hussein participated in most activities at Summerton Public School with a minimum amount of fuss and support (Wallace, 2000). Data from the *Meadow-Kendall Inventory* (Figure 5) and the *Mainstream Checklist* (Appendix H) revealed that Hussein was a socially and emotionally well-adjusted student who had a positive self-image. Findings from the Inventory and the Checklist also identified areas of weakness in Hussein's social and emotional skills (e.g., his anxiety about his academic performance and his enthusiasm towards group membership).

![Graph showing scores for Social Adjustment, Self Image, and Emotional Adjustment.]

*Figure 5. Results of the Meadow-Kendall Assessment Inventory in Case Study One.*

4.4.4.2 Personal/Social Performance Support Strategies

At Summerton Public School Hussein's acceptance by his peers was promoted with awareness, understanding and consistent expectations. Each year at his local school classes completed activities from the *Disabilities and Difference Program*. In addition, in the first term
of each school year Hussein visited and read stories to his younger peers in Kindergarten. In these reading sessions Kindergarten children were introduced and interacted informally with Hussein.

At school Hussein’s network of friends helped him with his organisational, administrative and personal needs (Moussa, 1998; Wallace, 2000). When Hussein was having problems participating in the lunchtime football games his friends made appropriate modifications to the game (e.g., the pace of the game slowed down considerably and changes to the rules were made). Finally, as a student of Summerton Public School Hussein was expected to conform to school and class rules. Hence, Hussein received the same punishment as his peers when he misbehaved at school. Bennett et al. (1997) reported the importance of consistent behavioural and discipline expectations for all students at school and in the classroom.

4.4.4.3 Analysis of Personal/Social Performance

Findings from this case study revealed that Hussein was a trustworthy and independent student who participated in most activities at school (Moussa Review Meeting, 1998-1999). At Summerton Public School Hussein was a popular and valued member of the school community. Awareness programs conducted at his local school encouraged and developed Hussein’s acceptance and positive relationship with his peers. Despite Hussein’s life-threatening condition, he was treated the same as other students in his class. His paediatrician wrote, “In every other respect this young man should be treated as normal” (Levy, 1991).

4.4.5 Variable Three (Physical/Interactional Performance)

In the examination of Hussein’s inclusive placement knowledge of his physical concerns and performance was necessary. Due to his unique condition Hussein has a number of physical concerns. These concerns involved his skin, body temperature, mobility and hearing. First,
Hussein's skin is flaky and has many cracks, which often bleed. His crusty skin is softened with medication and the application of creams (Levy, 1993). Second, Hussein's has problems overheating because of the thickness of his skin (i.e., he does not sweat efficiently) (Levy, 1999). Third, Hussein walks with a limp and has difficulty walking or standing for long periods of time (Levy, 1999). From the time of his enrolment at Summerton Public School the completion of fine and gross motor activities was often a challenge for Hussein (Moussa School Report, 1993-1999). Finally, Hussein has difficulty hearing especially in his right ear (Levy, 1993; Moussa Australian Hearing Services Report, 1994). Hussein has a mild hearing loss in his left ear and a severe hearing loss in his right ear (Figure 6). In Figure 6 the broken and unbroken lines indicate the level of Hussein's hearing in his left and right ear respectively (i.e., Hussein could hear all sounds below these lines). Hence, in a quiet room Hussein could hear everything under these lines without audiological equipment.

Figure 6. Hussein's current audiogram displayed on the frequency and intensity of familiar sounds spectrum used by Northern and Downs (1984).
4.4.5.1 Impact of Hussein’s Hearing Impairment

In 1994 Hussein’s ability to listen and follow directions was described as poor (Moussa Australian Hearing Services Report, 1994). In Year 1, Hussein frequently asked inappropriate questions and he relied on his friends to complete tasks (Moussa School Report, 1994). In his Year 2 Report (1995) the teacher noted that Hussein had a tendency to listen to part of the information and then guess the rest. In his Year 3 Report (1996) the teacher stated that Hussein rarely sought clarification in class and group activities although he enthusiastically participated in class discussions. In his Year 4 Report (1997) Hussein’s class teacher wrote,

“Hussein loves to tell stories, he speaks clearly with enthusiasm.”

During the third student interview (1998) Hussein confidently reported that Year 5 was the year that got him back on track. Data in this case study confirmed Hussein’s comment. First, in Year 5 Hussein achieved a score of 90% or greater in all auditory training activities in withdrawal Itinerant Support Hearing sessions. Second, Hussein made numerous oral presentations in class and at school assemblies in Year 5. Third, in his second last year at Summerton Public School Hussein took greater responsibility for his learning (e.g., his choice of seating, his use of hearing technology). During the fourth student interview (1998) Hussein remarked, “Sometimes they talked too loud. It’s not easy to listen when that happens Miss,” (p.2). Hussein also noted that it was easier to listen in well-lit areas “because you can see their faces Miss” (Moussa 4th Student Interview, 1998, p.3).

4.4.5.2 Physical/Interactional Performance Support Strategies

Since his enrolment in Kindergarten at Summerton Public School Hussein has received integration funding from the NSW government. Hussein’s integration aide provided emotional, medical, educational and organisational assistance. In his quest to be a normal and independent
student, Hussein happily shared his integration support with other members in the class. During this study Hussein remarked, “She’s there to help everyone Miss,” (Moussa 1st Student Interview, 1997, p.5).

From Year 1 to Year 6 Hussein received specialised assistance from his Itinerant Teacher Hearing. Hussein received two sessions of itinerant support each week (1 session = 45 minutes). In these sessions auditory training and language activities related to the class program were completed. In class, Hussein made best use of his residual hearing by sitting with his left ear closest to the teacher or speaker and by using an Easy Listener FM system. His Year 6 teacher commented, “With the use of the Easy Listener Hussein is able to follow multiple instructions easily” (Moussa Review Meeting, 1999, p.1).

Finally, in wintertime Hussein kept warm by wearing many layers of clothing. In summertime he kept cool (and did not overheat) with the use of a portable air-conditioner. On hot days at school Hussein (like his peers) had a bottle of water on his table in the classroom.

4.4.5.3 Analysis of Physical/Interactional Performance

Data in this study showed that Hussein had good days and bad days at Summerton Public School (Moussa Student Diary, 1997). Because of Hussein’s quiet and reserved nature it was difficult to understand how he was feeling (Moussa Review Meeting, 1997; Moussa, 1998). With audiological assistance, specialised support and the implementation of appropriate teaching strategies, Hussein participated in all class and school activities. Each year at Summerton Public School, Hussein’s on-going needs for support were closely monitored by members of his Learning Support Team.
4.4.6 Variable Four (The School Environment)

In the examination of Hussein’s inclusive placement, knowledge of the school environment was important. The school environment included the design and location of Hussein’s classroom and the participants who were involved in his inclusive education.

4.4.6.1 The Classroom

At Summerton Public School all classrooms are located in buildings which are separate from the main school office, the school assembly hall and the school canteen. These three areas are busy and noisy areas in any school. Furthermore, all regular classrooms at Summerton Public School are located in full brick buildings and have cement floors. Hence there was little noise transference from outside or inside the building. In addition, every classroom at Summerton Public School had carpet on the floor (with the exception of the wet area of the classroom). The carpet on the floor absorbed a high percentage of internal noises in the classroom, such as the scraping and banging of chairs on the floor. Consequently, the design and location of the classrooms at Summerton Public School minimised the impact of noise and reverberation on Hussein’s listening and learning.

When Hussein was in Year 2, Four, Five and Six his classroom was located on the first floor of the building. During the school day, Hussein and his peers used the stairs for a variety of reasons (e.g., community language classes, reading groups, library lessons and meal breaks). Hussein’s problems with the stairs were minimised with understanding and assistance from his peers. No-one complained when Hussein took his time up and down the stairs and his friend brought his Easy Listener to ISTH withdrawal sessions.
4.4.6.2 The School Community

The school physical environment also involved the members of staff and other students who were enrolled at Summerton Public School. Hussein enrolled at his local school under the Enrolment of Children with Disabilities Policy. His continued enrolment at Summerton Public School was dependent on satisfactory reviews of his placement. In a letter to Mrs Moussa the school principal wrote, “We hope that we can have Hussein in our school for the duration of his primary years and we look forward to a long association with you” (Wallace, 1992, p.1). In the letter, the principal also indicated that she wanted to meet with Mrs Moussa on a weekly basis to discuss and solve together any problems or concerns that may have arisen during the week. The positive attitude of the school principal was a role model for other school personnel who supported Hussein’s inclusive education at Summerton Public School.

Support from the whole school was essential for Hussein’s successful inclusive education. In response to the question, ‘Are the educational goals for the student appropriate, and are they being achieved?’ the school principal wrote, “Yes, due to the commitment by all staff to that achievement” (Moussa Review Meeting, 1993, p.2). The principal, the school counsellor, the school integration co-ordinator, the senior school assistant, the class teacher, the integration aide, the Itinerant Support Teacher Hearing and class peers all directly supported Hussein’s inclusive education.

Since Hussein’s enrolment in Kindergarten, Mrs Wallace the school principal has played an active role in his inclusive education. Following a discussion among members of the school executive, Mrs Wallace approved Hussein’s enrolment application at Summerton Public School. The principal commented, “He is bright, he is social. He is going to have problems with his skin. There was no reason why we couldn’t take him. We agonised over how he would be accepted”
(Wallace, 2000, p.3). Mrs Wallace further commented, “It never occurred to me that it won’t work” (Wallace, 2000, p.4).

Over the years Mrs Wallace has been a positive and persuasive advocate in Hussein’s inclusive education. On her student’s behalf, she liaised with educational personnel at various educational levels. At district level, Mrs Wallace had regular discussions with the Integration Adviser and the Special Education Officer. At state level, Mrs Wallace and Mrs Moussa participated in the Integration/Inclusion Feasibility Study (NSW Department of School Education, 1996b). At federal level, Mrs Wallace made numerous submissions for specialised assistance and resources on Hussein’s behalf (e.g., funding for the purchase of his portable air conditioner).

Throughout Hussein’s enrolment at Summerton Public School the principal has implemented strategies which have enhanced his inclusive education. First, the principal carefully selected members of staff who were going to work with the young student with special needs (e.g., his class teacher and integration aide). In reference to the integration aide the principal commented, “I just didn’t want to choose someone who was there!” (Wallace, 2000, p.8). Second, the principal placed great value on understanding and effectively supporting Hussein’s special needs. Mrs Wallace requested relevant information from Hussein’s doctors and encouraged members of staff to develop skills and strategies which would assist Hussein’s inclusive education (e.g., attendance at in-service courses). Third, the principal inspired members of staff to work together (e.g., Hussein’s Learning Support Team). Finally, the principal was always available to discuss Hussein’s daily needs.

For the entire period of Hussein’s primary school education, the same school counsellor has been at Summerton Public School. The school counsellor, like other members of staff, had a
caring and positive attitude towards Hussein’s inclusive placement. At Review Meetings the school counsellor provided guidance and understanding when Hussein’s needs for support were discussed. The school counsellor also provided moral support for all participants who were involved in his inclusive education.

In his role as the school cricket coach Hussein’s Year 4 teacher encouraged Hussein’s participation in the junior school cricket team. This enhanced Hussein’s relationship with his peers. Although all students in the class respected the Year 4 teacher, he did not have a close working relationship with his students. Hussein’s integration aide revealed that the Year 4 teacher found it difficult to relate to students with special needs (Sergeant, 1999). Whereas many of Hussein’s teachers referred to his personal traits in his school reports (e.g., cheerful, cooperative, has a wonderful sense of humour, has a mature attitude to life), his Year 4 teacher referred to him only in general academic terms (e.g., excellent progress in all areas and the standard of his bookwork). The Year 4 teacher also had difficulty working with other members of staff. The integration aide remarked, “He was a super grad and had everything under control” (Sergeant, 1999, p.3). Chorost (1988) reported that teachers sometimes believed receiving advice or assistance was a sign of weakness in their ability to teach.

In Year 4 Hussein felt he lost his way as he often didn’t understand the purpose of class activities and he did not know if the standard of his work was satisfactory to the teacher (Moussa 1st Student Interview, 1997). On many occasions Hussein was upset when his Year 4 teacher would collect and return his workbooks without any visible signs of marking. Yet in Hussein’s school report (1997) the teacher wrote, “Hussein’s books and assignments in Science and H.S.I.E. are also very good.”
In Year 5 Hussein once again had a positive attitude to learning and to school. In this study Hussein commented, "The year that got me back on track was Year 5. I just understand what to do. I took my work seriously." (Moussa 4th Student Interview, 1998, p.6). Hussein made the following positive statement about his teacher. "She is a good teacher. She gets to the point when she is speaking in mathematics and everything" (Moussa 4th Student Interview, 1998, p.6). According to the school principal, Hussein's Year 5 teacher was "One of the best teachers I have ever had!" (Wallace, 2000, p.10). Hussein had his Year 5 teacher again when he was in Year 6.

Hussein's Year 5 teacher had an excellent working relationship with students in her class. First, the Year 5 teacher maintained a warm and caring classroom environment, which was built on trust, respect and responsibility. Second, the Year 5 teacher valued the opinions of the students in her class (e.g., the establishment of the class rules and student participation in three way parent interviews). Third, the Year 5 teacher constantly inspired and challenged her students to strive for personal improvement in their work. In Hussein's Year 5 Report (1995) the teacher wrote, "He has confidence in his achievements and is ready and eager to learn more." Considering that twelve months prior to this report Hussein was feeling despondent and negative towards learning this was an extraordinary change in his attitude to school. Finally, the Year 5 teacher maintained the same standards of discipline for all members in the class, including Hussein (e.g. when he was cheeky in class he sat on the silver seats at recess time).

Various educational approaches were employed in Hussein's Itinerant Support Teacher Hearing sessions (e.g., team teaching, small group and individual tutoring). Hussein was appreciative of ISTH assistance, especially when his peers also benefited from itinerant support. Over the years a close relationship has developed between Hussein and his itinerant teacher. This
relationship has helped Hussein through good times (e.g., his Year 6 Farewell) and the not so
good times (e.g., when he overheated after cricket).

The integration co-ordinator at Summerton Public School was a valuable member of
Hussein’s Learning Support Team. The school principal referred to the integration co-ordinator,
“as thorough, well organised and the person who makes it happen at meetings,” (Wallace, 2000,
p.2). Quietly and efficiently, the integration co-ordinator arranged and participated in all school
integration Review Meetings (Moussa Collaborative Team Scale, 1997-1999). Despite her
demanding and time consuming role, the integration co-ordinator also ensured that all student
Individual Education Programs were satisfactorily written and evaluated at Summerton Public
School.

From the time of his enrolment in Kindergarten until his transition to secondary school,
Mrs Sergeant was Hussein’s integration aide. Mrs Sergeant had a positive attitude towards
Hussein’s inclusive placement. She commented, “Anything I can do just let me know,” (Moussa
Researcher Diary, 1999, p.24). Indeed, Mrs Sergeant enjoyed and appreciated being involved in
all aspects of Hussein’s inclusive education (Moussa Collaborative Team Scale, 1997-1999).
After the Review Meeting in Year 5 Mrs Sergeant remarked, “It’s nice to be involved and asked
my opinion” (Moussa Researcher Diary, 1998, p. 7). Over the years, Mrs Sergeant developed an
excellent working relationship with Hussein, Mrs Moussa and his class teachers. Mrs Sergeant
stated, “Working with teachers you soon know where the line is, you can’t step over the line”

The senior school assistant at Summerton Public School supported Hussein’s medical and
emotional needs. During recess and lunchtime, when Hussein felt uncomfortable or had
problems in the playground he often sought refuge with the senior assistant in the school office.
The school assistant administered his creams and provided first aid treatment when necessary (e.g., the re-application of cream on his dry and cracked skin). During his enrolment at Summerton Public School Hussein and the senior school assistant became good friends and conversational partners, especially during the football season.

According to the school principal, Hussein settled in easily at Summerton Public School, “Because half the school is related to him and they always look after their own” (Wallace, 2000, p.2). Poynting et al. (1997) noted that friendship and camaraderie were important elements of Lebanese culture. Hussein’s Arabic Community Language teacher confirmed that the Lebanese population were accepting of their own (Reda, 1999). The community language teacher also noted that in the Lebanese culture, males had a dominant role in family life and often became discipline problems as they got older (Reda, 1999). The school principal confirmed this point of view when she commented, “Whatever we think about Lebanese boys they get harder to manage as they get older” (Wallace, 2000, p.2). In both years of this case study, the class teacher had well disciplined classrooms. Problems with discipline occurred only when there was a change to class routine (e.g., a casual teacher taught the class).

4.4.6.3 Support Strategies in the School Environment

Prior to Hussein’s enrolment at his local school, the director of his pre-school liaised with the school counsellor at Summerton Public School. The director revealed that Hussein required an individual gross motor program, joggers when climbing and special cream and bandages when he scratched himself (Moussa School Counsellor notes, 1993, p.7). Information from the school counsellor’s notes was used in Hussein’s Kindergarten Individual Education Program and at a general staff meeting at Summerton Public School. The school principal commented, “We decided we had to do something to prepare ourselves and the kids. At a staff meeting pictures of
Hussein were shown and his special needs were discussed" (Wallace, 2000, p.8). Hussein's future integration aide at Summerton Public School also searched for additional information on Hussein's unique medical condition (Sergeant, 1999). All educational personnel who were involved in Hussein's inclusive education attended a special in-service course for supporting students with special needs.

In the term before Hussein's enrolment in Kindergarten all students at Summerton Public School participated in a peer support program and completed a unit of work from the *Disability and Difference Program*. Activities in the *Disability and Difference Program* challenged students to explore their feelings when they interacted with a student who had special needs. Since Hussein's enrolment at Summerton Public School, classes completed activities from this program each year.

In Kindergarten, Hussein's teacher continued the anti-bias curriculum that was implemented at his pre-school. The teacher also designed an individual gross motor program for Hussein. The gross motor program focused on Hussein's balance, co-ordination and mobility skills. Each day at school, Hussein completed activities from the program with the support of his integration aide.

When Hussein enrolled in Kindergarten many parents in the school community were anxious about his unique condition. "They wondered if it was contagious? If so, they didn't want their child in Hussein's class" (Wallace, 2000, p.10). At formal school meetings parents were informed of Hussein's condition and special needs. Parents were also encouraged to discuss Hussein's condition with their children at home. "The kids told their parents that there was nothing to worry about. Hussein was OK!" (Wallace, 2000, p.10). After this situation was
resolved Hussein’s inclusive enrolment was never again an issue with parents in the school community.

From Kindergarten to Year 6, a Learning Support Team supported Hussein’s education at Summerton Public School. Members of his support team were: Mrs Moussa, the school principal, the school counsellor, the school integration representative, his class teacher, his integration aide and his Itinerant Support Teacher Hearing. When Hussein was placed on itinerant caseload in 1994, a small group of people supported his inclusive placement. By the time of his transition to high school a much larger group of people supported his inclusive placement. Participants included: his mother, the school principal, the school counsellor, the school integration representative, school office assistants (x2), his class teacher, his itinerant teacher, his integration aide, his peers, his medical specialists (x5) and personnel at Australian Hearing Services.

4.4.6.4 Collaboration Between Medical and Educational Personnel

Following Hussein’s Review Meeting in 1997 Mrs Moussa gave written approval for school personnel to contact Hussein’s doctors. With written authorisation Hussein’ paediatrician, dermatologist, Ear, Nose and Throat specialist and orthopaedic surgeon provided school personnel with documentation of Hussein’s current medical status. In this study Mrs Moussa queried, “They give to you the reports? When I went to see them I said you doing a study. I told them to give you reports” (Moussa, 1998, p.1).

At the 1998 Review Meeting members of the Learning Support Team discussed Hussein’s mobility, stance and balance difficulties at school. During this discussion Mrs Moussa revealed that she was worried about her son’s legs not growing straight. After extensive conversations between medical and school personnel (1999) Hussein had an operation on his
knees in July 1999. The delay in medical intervention highlighted the need for a closer relationship between Hussein’s doctors and his teachers.

4.4.6.5 A Time Not to Collaborate With Medical Personnel

Inclusion is an active process, which involves people from within and outside the school community. The second school nurse in this study had an indifferent attitude and confusing approach towards Hussein’s inclusive placement. The nurse once commented, “Is there really need for a meeting? There is not much we can do. He is going to die!” (Moussa Researcher Diary, 1997, p.1). On another occasion, the nurse misrepresented herself on a home visit to Mrs Moussa. Unaware of her visitor’s true identity, Mrs Moussa was not pleased with the imposing style of the school nurse (Moussa, 1997). Consequently, members of the Learning Support Team agreed not to involve the school nurse any further in Hussein’s education at Summerton Public School.

4.4.6.6 Analysis of the School Environment

Findings from this study revealed that the physical school environment had minimal impact on Hussein’s inclusive education. Due to the structure and location of Hussein’s classrooms at Summerton Public School, noise and reverberation was not a problem in his learning. Difficulties due to the location of Hussein’s classroom were addressed with the employment of appropriate intervention strategies (e.g., understanding and assistance from his peers).

Results of the study also revealed that all members of the school community at Summerton Public School had a positive and supportive attitude towards Hussein’s inclusive placement. The principal at Summerton Public School constantly promoted strategies that enhanced his successful inclusive placement. These strategies included discussions with medical
and educational personnel, the preparation of staff and students for his inclusive placement, the selection of personnel who worked with him and the encouragement of staff to work together in meeting his special needs. In nearly all instances these strategies were successful. An example of an unsuccessful decision was the selection of Hussein’s Year 4 teacher. The thought of meeting Hussein’s unique needs was an intimidating and challenging task for all his teachers (Wallace, 2000). The school principal selected the Year 4 Teacher because she felt Hussein would benefit from having a male teacher. Unfortunately, the Year 4 teacher had difficulty relating to his student with special needs and was reluctant to collaborate with other educational personnel who supported Hussein’s inclusive placement.

Strategies promoted by the school principal were also hindered by insufficient information of Hussein’s current medical needs. Although the school had written authorisation from Mrs Moussa, communication between medical and educational personnel was still fairly remote. With limited knowledge of Hussein’s special needs, participants involved in Hussein’s inclusive education relied on support from a specialist teacher (Summerton Public School, 1997a). Continuity in support from the specialist teacher has been a problem at Summerton Public School. In the early years of Hussein’s inclusive education there was only intermittent contact with the Counsellor for Physical Disabilities. “The problem was that person disappeared. One of them died and the next person ... her job description changed” (Wallace, 2000, p.6). Until the appointment of Hussein’s current Itinerant Support Teacher Hearing, there was a distant and disruptive relationship between Summerton Public School and the Itinerant Support Hearing service provider. The school principal commented, “We had a broken period with itinerants before you. It was one after the other sort of thing. There was never any continuity” (Wallace, 2000, p.1). The senior school assistant noted, “We had three ISTH’s in one year. One
would turn up intermittently, one was aggressive and one kept on getting seconded to another role” (Moussa Researcher Diary, 1998, p.3).

4.4.7 Variable Five (Parent and Family Support)

Parental attitudes and support from the family influenced the success of Hussein’s inclusive placement (Summerton Public School, 1997b). According to the school principal, Mrs Moussa believed, “Hussein was doing well at school and was accepted by his peers and was normal” (Wallace, 2000, p.7). At the Review Meeting (1997) Mrs Moussa remarked, “I ask him if he happy with his school work? He say fine” (p.3).

4.4.7.1 Interaction Between Hussein’s Parents and School Personnel

From the time of Hussein’s enrolment in Kindergarten until his transition to high school in Year Seven there was minimal contact between school personnel and Mrs Moussa. The school counsellor noted that interaction with Hussein’s mother was always at the request of school representatives. “Otherwise we would never hear from them or see them,” remarked the school counsellor (Moussa Researcher Diary, 1999, p.14). At the invitation of the school principal, Mrs Moussa participated in the Integration/Inclusion Feasibility Study (NSW Department of School Education, 1996b). The school principal revealed that Mrs Moussa spent the whole interview saying how delighted she was with the staff at the primary school rather than discussing the inclusive needs of her child (Wallace, 2000).

4.4.7.2 Parent and Family Support Strategies

In supporting her young son, Mrs Moussa has developed a coping strategy of living for the present. “I never think of tomorrow. I’m not surprised if anything is going on. Because I don’t know how long he is with me” (Moussa, 1998, p.10). The school principal and Hussein’s teachers were often frustrated by Mrs Moussa’s attitude that everything was fine with her young
son. “The doctor today was very happy. If Hussein stay in this condition the doctor is very pleased. If Hussein stay in this condition he can cope at school at everything. Just fine.” (Moussa, 1997, p.2). It seems Hussein’s doctors were happy if Mrs Moussa was happy. Similarly, Mrs Moussa was happy if the doctors were happy. In the two parent interviews in this study Mrs Moussa used the words pleased, happy or fine 25 times. Hussein’s dermatologist remarked, “You will think I am neglectful but all the reports keep saying he is fine” (M. Sawyer, personal communication, May 5, 1998). Dr. Sawyer reported that her consultations with Hussein were basically social chats about his progress at school. Hussein’s consultations with his paediatrician also involved discussions about school, as it was difficult to examine Hussein because he was so ticklish (Levy, 1998).

Although Hussein experienced mobility and balance problems at school in 1998 and 1999, Mrs Moussa successfully convinced her son’s doctors that Hussein was fine. The school principal stated, “every time we talked to the doctor, do you remember? I will never forget the doctor telling me that there was nothing wrong, nothing to be concerned about!” (Wallace, 2000, p.6). After conversations between the Mrs Moussa, the paediatrician, the school principal and his itinerant teacher, Hussein eventually had an operation on both knees in July 1999.

Each year Mrs Moussa attended Hussein’s Review Meeting. Due to minimal contact between Mrs Moussa and school personnel it was important that meetings with Hussein’s mother were structured and well organised (e.g., meetings followed a set agenda, toys were available for her grandchildren and if possible the meeting was recorded). Responses to the Collaborative Team Scale (1997-1999) identified areas of weakness and need in Hussein’s learning at Summerton Public School. In the quest for accurate knowledge of Hussein’s medical needs and to open the channels of communication between educational and medical personnel, Mrs Moussa
authorised direct communication between Hussein’s teachers and his doctors (Moussa Review Meeting, 1997-1998).

4.4.7.3 Analysis of Parent/Family Support

The supportive attitude of Hussein’s mother and other family members was a vital component of his successful inclusive education. Mrs Moussa was adamant that her young son would attend his local primary school (Moussa, 1997). After Hussein’s enrolment at Summerton Public School Mrs Moussa was pleased to give the responsibility of her son’s education to his teachers (Wallace, 2000).

Since Hussein’s enrolment at Summerton Public School there has been a distant relationship between his mother and school personnel. Sometimes this distant relationship had a negative impact on Hussein’s inclusive education (e.g., the delay in educational intervention following the diagnosis of her son’s hearing loss). The distant relationship between Mrs Moussa and school personnel also affected the interaction between Hussein’s teachers and his doctors. During this study these difficulties were partially overcome.

4.5. Understandings from this Case Study

4.5.1 Inclusion is About Understanding People

Hussein’s survival is incredible, given the current mortality rate of babies born with Harlequin Fetus Syndrome (M. Sawyer, personal communication, August 10, 2000). Although many medical and educational professional people regard Hussein as a ‘medical freak’ (Wallace, 2000), in his family he is viewed as a loving son, brother, uncle and cousin (Moussa, 1997-1998; Moussa Mainstream Checklist results).

Hussein is a popular student with a close network of friends. His teachers referred to him as a confident young man who had a positive and enthusiastic attitude to learning. Data in the
study revealed that he was an astute judge of his teachers. The young student with a hearing impairment used the following criteria to evaluate his teachers. First, he thought the ease of understanding and following the teacher’s instructions was important. After the fourth student interview Hussein reported that his Year 3 teacher spoke with an accent and was difficult to understand. Second, he believed strategies used by the teacher in the classroom was a vital consideration. Hussein was upset when his Year 4 teacher collected but did not mark his workbooks. Third, Hussein felt it was important for him to relate to his class teacher. He discussed he football and shared jokes with his Year 5 teacher. Lang et al. (1993) included these three characteristics in their study of effective teaching methods.

Findings from this study revealed that Hussein’s attitude to school and learning varied from day to day and from year to year just like any other student. At the end of Year 4 Hussein thought he had lost his way. During this time he had a negative attitude towards his teacher and to learning. Data from this study revealed that Hussein wasn’t truly happy in the classroom until Year 5, when he shared a close working relationship with his teacher. By the end of Term One in Year 5 Hussein was back on target at school and had a positive attitude to learning. However, by the end of Year 5, once again Hussein had a negative attitude towards school. Hussein commented, “This place is dumb. I should be in high school” (Moussa Researcher Diary, 1998, p.14). If chronological age was the basis of high school enrolment then Hussein should have been going to high school next year. Early in Year 6 Hussein was anxious about his future high school placement. On his high school application he wrote, “I think I will fit in. I hope my application will be accepted” (1999). When his application was accepted by the high school of his choice Hussein was an excited and relieved student. Hussein remarked, “I can’t wait, because it’s exciting to be in it. First year in high school, it’s different. I’ve got cousins and friends who
go there” (Moussa Researcher Diary, 1999, p.19). In his last term at Summerton Public School Hussein became subdued about his future educational prospects. “It’s like he is with you but he is deeply thinking about something else,” said the Year 6 teacher (Moussa Researcher Diary, 1999, p.28). Data in this study revealed that Hussein was concerned about his future high school placement. Cook and Semmel (1999) found peer acceptance influenced the success of the inclusive placement.

Despite Hussein’s numerous medical concerns, Mrs Moussa has endeavoured to make her young son’s life as normal as possible. Hussein’s mother was happy when the principal at Summerton Public School accepted her son’s enrolment application. Mrs Moussa commented, “He is doing just fine, he is happy, we are pleased he is doing good” (Moussa Researcher Diary, 1999, p.22). In the examination of the inclusive education of students with special needs student happiness is only one of the variables which influenced the success of the inclusive placement.

4.5.2 A Positive School Environment

The positive attitude and support of the school principal and other members of staff at Summerton Public School was a vital part of Hussein’s successful inclusive education. Cook et al. (1999) found positive attitudes were an important pre-requisite for successful inclusive education. The school principal was a vocal and persuasive advocate for all students who were enrolled at Summerton Public School. Data from this study showed that the school principal felt proud and privileged to have played a role in Hussein’s inclusive education (e.g., Summerton Public School, 1997b). When addressing Hussein’s special needs Mrs Wallace always thought in terms of personal accomplishments and not in terms of restrictions and limitations (e.g., requests for special funding and her communication with Hussein’s paediatrician). Findings
from the study revealed that all members in the school community were also fond of Hussein and were prepared to do whatever it would take to make his inclusive education successful.

4.5.3 Effective Leadership

The school principal's role was critical in Hussein's successful inclusive education. Bennett et al. (1997) found effective leadership and support were key elements of successful inclusive education. Throughout Hussein's education at Summerton Public School the principal developed and promoted strategies which supported his inclusive education. First, the principal encouraged members of staff to take an active role in Hussein's inclusive education (e.g., in decision making and the delegation of responsibilities). Buell et al. (1999) found the involvement of school personnel in decision making improved teacher efficacy. Second, the principal promoted strategies which ensured all members of the school community were aware of Hussein's special needs (e.g., staff in-services, Kindergarten-Year 6 peer support programs and parent information sessions). Third, with assistance from her school executive the principal selected Hussein's class teacher and integration aide. Finally, the principal encouraged teamwork and consultation when supporting Hussein's inclusive education. Villa et al. (1996) noted that collaborative planning and teaming was a vital aspect of successful inclusive education.

From experience Hussein found Mrs Wallace to be a fair and understanding person. During the first student interview (1997) Hussein commented, "She (the principal) would pick the right decision to do on the person. She knows about everyone. She does care Miss. She always asks how you going Hussein?" (p.4). With the exception of this study Hussein has never had the opportunity to discuss his thoughts about his inclusive placement (i.e., his perceptions of the school principal, his classroom teachers and his attitude to school). Vaughn and Kinger (1998) reported that the people most affected by placement decisions were rarely heard.
4.5.4 Collaboration

Due to the unique nature of Hussein’s condition and the distant relationship between his mother and school personnel, collaboration among educational personnel was a vital aspect of his successful inclusive education. In supporting Hussein’s inclusive placement, it was important for his teachers not to feel alone. The school principal commented, “The thought of meeting his needs can be quite daunting” (Wallace, 2000, p.12). Consequently at Summerton Public School, a Learning Support Team assisted the class teacher and the student with specials needs. All members of the team contributed towards Hussein’s successful inclusive placement and no-one person was regarded as an expert. Wood (1998) found that the formation of a support network was a critical feature of successful inclusion. Greaves (1995) reported that all members in the support network should have equal status and all knowledge is valued and appreciated.

Collaboration among educational personnel was most effective when members of Hussein’s Learning Support Team had sufficient time to understand and respond to his special needs. Scruggs and Mastropieri (1996) found that time to address the student’s special needs was a vital aspect of successful inclusion. Because of insufficient time, Hussein’s teachers at Summerton Public School often learnt about his special needs and developed appropriate intervention strategies as they went along (Wallace, 2000). Fortunately, the two transition meetings which were held in the year prior to Hussein’s enrolment at high school ensured high school personnel had time to understand and address their future student’s special needs.

From the time of Hussein’s enrolment in Kindergarten until he was in Year 3 collaboration between educational and medical personnel within the school environment was a vital component of his successful inclusive education. Shortly before this study commenced there was a change in medical support personnel at Summerton Public School. Whereas the
former school nurse was an understanding, reliable and professional person, her replacement lacked all of these qualities. After a discussion between the school counsellor, the school principal and itinerant teacher, it was decided not to involve the nurse in Hussein’s inclusive education. The school principal commented, “If we need medical or audiological advice we will ask his doctors or the people at the Hearing Centre” (Wallace, 2000, p.6). Idol and West (1991) highlighted the importance of co-operative planning, shared problem solving and joint ownership in successful inclusion.

Collaboration between school personnel and medical personnel outside the school environment was also essential for Hussein’s successful inclusive education. From the time of Hussein’s enrolment in Kindergarten until his transition to high school there has been a distant relationship between his teachers and his doctors. Because of poor communication between medical and school personnel there have been delays identifying Hussein’s current medical needs (e.g., the diagnosis of his hearing loss and his mobility and balance concerns). Mukherjee et al. (2000) found communication and collaboration difficulties between medical and school personnel had a negative impact on the child with special needs.

4.5.5 The Need to be Informed

Sensitivity to Hussein’s unique condition was an ongoing concern in his successful inclusive education. Knowing that all sensory impaired children are not alike (Allen & Osborne, 1984) and knowing that children with a hearing impairment are at risk of not achieving their true academic potential (Calderon et al., 1998), it was vital that school personnel had an accurate understanding of Hussein’s current medical status. Each year when Hussein’s placement was discussed at his Review Meeting school personnel constantly expressed the need to be informed of their student’s current medical needs (Moussa Review Meeting, 1994-1999). Until this study,
Summerton Public School had little information on Hussein’s medical condition and special needs. The school counsellor commented, “Communicating and getting information from mum is almost impossible!” (Moussa Researcher Diary, 1998, p.9). The first school nurse in this study commented, “And the teachers are always the last to know. And yet they are in the front line” (Best, 1998, p.14). After the Review Meeting in 1997 Mrs Moussa gave the school written authorisation to communicate directly with Hussein’s doctors. With parental authorisation school personnel obtained knowledge of Hussein’s current medical prognosis and needs.

4.6 Implications and Recommendations from the Study

4.6.1 The Student with a Hearing Impairment

Hussein is a friendly, enthusiastic student who has special needs due to his unique medical condition. His successful inclusive education requires the implementation of appropriate support and intervention strategies. When making decisions about the type and level of support for Hussein it is important to find a balance between supporting his individual needs and his needs as a member of the class and school. As Hussein matures and becomes an independent learner, balancing his needs for support will continue to be a critical aspect of his inclusive education.

Ongoing support is essential for Hussein’s successful inclusive education. The principal at Summerton Public School commented, “That was what I was saying to David McRae¹. It has to be life long, the support thing. You get there and then there is another hurdle” (Wallace, 2000, p.9). The principal further commented, “A lot of things have gone on with good will and good will is wearing thin, because of how much is being asked of teachers” (Wallace, 2000, p.4). During Hussein’s enrolment at Summerton Public School the method of funding his inclusive

¹ Mr David McRae, author of NSW Department of Education and Training (1996) Integration/Inclusion Feasibility Study.
education has changed many times. At present, a computer program and formulae determine the level of funding for his inclusive education. Thorley et al. (1995) found that people who had never met the student with special needs often made decisions about their inclusive placement.

4.6.2 Implications for School Personnel

Although the principal and staff at Summerton Public School were supportive of Hussein’s special needs, findings from this case study revealed four areas of weakness in the school environment. First, all teachers in this study reported that communication between Hussein’s doctors and teachers was almost non-existent until this research. Accurate information of Hussein’s current medical needs would help teachers make informed decisions about his inclusive placement. Second, with the exception of the researcher, all teachers who participated in the study had no training in special education. Scruggs and Mastropieri (1996) reported that most teachers in regular classrooms had not received any training in special education. Third, all teachers who supported Hussein’s inclusive placement believed they would benefit from collaborative and consultative training. Villa et al. (1996) found few teachers had received training in collaboration. The ability to work with others was essential as a variety of participants supported Hussein’s education. Finally, all teachers in this study reported that they would benefit from knowledge of NSW Department of Education and Training policy on inclusion. The study by Winter and Van Reusen (1997) reported that classroom teachers were often unaware of the recommended guidelines and requirements for teaching students with special needs. Knowledge of current government policy would assist Hussein’s teachers when they made decisions about his inclusive placement. Staff inservices and workshops on inclusive education and the availability of appropriate documentation in the staff room would promote better understanding by school personnel.
4.6.3 Implications for School Practice

Implications for school practice from this study were the accuracy of school reports and the modification of the school Integration Policy. Accuracy when reporting on student progress at school is important for all students. In contrast to the explicit and accurate findings from his Basic Skills Tests, most of Hussein’s school reports only provided an outline of his academic progress at school. His school reports used general terminology and did not refer to the achievement of specific learning outcomes. In Year 6 Hussein remarked, “The reports are stupid. They don’t tell you anything!” (Moussa Researcher Diary, 1999, p.14). In his final year at primary school changes were made in the design and structure of students’ school reports.

Clark et al. (1999) found inclusive education involved the development of new structures and practices. The current Integration Policy at Summerton Public School only discussed the partial re-integration of students who were enrolled in special support classes. The school policy did not refer to students with special needs who were enrolled in regular classes at the school. The study by Mukherjee et al. (2000) reported the necessity for an accurate school policy on inclusive education. For teachers at Summerton Public School to actively embrace the philosophy of inclusive education, a policy which involved all students with special needs was essential.

Inclusive education creates learning communities which are sensitive to the needs of their members. Because inclusion is a gradual process, the needs of all participants who are involved in the inclusive school environment should be regularly monitored and addressed. The identification of these needs enhances the success of the inclusive placement. This study identified examples of good practice and areas of weakness in Hussein’s inclusive education at Summerton Public School.
CHAPTER FIVE

5.0 Case Study Two

5.0.1 Introduction

The student in the second case study is Mara Velkovski. Once again, pseudonyms are used for all participants and place names in this case study. Mara has been a student at Summerton Public School from Kindergarten to Year 6. Mara is a quiet and well-behaved student in the classroom. Throughout her education at Summerton Public School her teachers have been pleased with her attitude to learning and her academic performance at school (e.g., Velkovski School Report, 1994-2000).

In this study Mara’s personal history was explored and her education at Summerton Public School was carefully examined, with specific attention to when she was in Year 4 and Year 5. The conclusion of this study represented a new and challenging period in Mara’s inclusive education (i.e., her transition to high school). Mrs Velkovski and her young daughter were adamant that Mara would attend the same high school as her friends and family members. At high school Mara would not receive specialised assistance or use hearing technology because of her mother’s personal and cultural beliefs.

5.1 Background Data for this Case Study

Background information on otitis media, the use and development of speech in hearing-impaired students and the implications of Macedonian culture on a student’s education is provided in this study.

5.1.1 Otitis Media

Otitis media which is an infectious condition of the middle ear, is a principal cause of conductive hearing loss (Lyon, Mutch & Soulsby, 1986). Fluid and/or negative pressure in the
middle ear is a result of otitis media. Otitis media causes a serious loss in hearing (approximately 25dB across the speech frequencies) (Boswell, 1993).

5.1.1.1 Diagnosis of Otitis Media

Infants and young children are commonly diagnosed with chronic otitis media (Jessen & Beattie, 1990). Boswell (1993) reported that between 75% and 95% of children under five years of age are affected by this condition. Although some children suffer recurring bouts of otitis media, most acute episodes are resolved with medical intervention. Medical intervention includes the prescription of antibiotics, the insertion of ventilation tubes known as grommets and the removal of a child’s adenoids. After consultation with medical personnel, it is the parents who decide what is best for their child (Schoem, 1997). By the age of five most children eventually outgrow this chronic condition due to the maturation of the eustachian tube and the use of antibiotics (Schoem, 1997).

Factors which influence a child’s susceptibility to otitis media are the child’s age and age at its onset, the child’s socio-economic status, genetics, the child-care situation, prematurity and other disabling conditions. With the movement of fluid in the middle ear, otitis media can cause a fluctuating hearing loss. Many fluctuating cases of otitis media go undetected (Jessen & Beattie, 1990). Hence, in the diagnosis and support of a child with otitis media identifying the concerns of family members is invaluable (Roberts & Schuele, 1990).

5.1.1.2 Implications of Otitis Media

Otitis media usually occurs in the first year of a child’s life (i.e., before the child has developed auditory and communication skills) (Boswell, 1993). The onset of otitis media affects the development of the child’s auditory and linguistic skills (Jessen & Beattie, 1990). Because of difficulties listening and attending in class, children with chronic otitis media are at risk of
academic, language, speech and behavioural problems in their early years of education (Figure 7).

![Diagram showing the impact of otitis media on a student's academic and linguistic performance](image)

**Figure 7.** The impact of otitis media on a student’s academic and linguistic performance (Jessen & Beattie, 1990).

### 5.1.1.3 Educational Intervention

The successful early identification and intervention of children with a hearing loss requires teamwork, good communication and effective support systems for families (Marlowe, 1999). When a young child has persistent otitis media, educational intervention and specialist support is critical (e.g., speech therapy). The impact of otitis media on a student’s learning can be minimalised with early identification of the hearing loss and the use of appropriate strategies in
the classroom (Lyon et al., 1986; NSW Board of Studies, 1998). Educational support for the student with otitis media needs to be closely monitored because of the fluctuating nature of the hearing loss (Roberts & Schuele, 1990).

5.1.2 The Use of Speech by Students with a Hearing Impairment

There is an expectation in most English speaking countries that a child will learn to speak from a young age (Kretschmer & Kretschmer, 1999). Over 90% of children with a hearing impairment are born to hearing parents (Lederberg & Mobley, 1990). Most hearing parents use speech to communicate with their hearing-impaired child (Simser, 2000). Furthermore, 90% of the deaf and hard-of-hearing population are educated in regular classrooms where speech is the primary mode of communication (Simser, 2000). With appropriate support in the classroom, students with a hearing impairment develop language and speech skills which will help them become independent members in society (Goldberg, 1999). The performance of hearing-impaired students in the inclusive setting is enhanced with optimal audiological management and the use of appropriate teaching strategies (Watson & Parsons, 1998).

5.1.3 The Development of Speech in Students with a Hearing Impairment

Children who are deaf or hard-of-hearing are a heterogeneous population (Allen & Osborn, 1984; Simser, 2000). Although students may have similar audiograms it is possible for their speech and language abilities to be noticeably different (Goldberg, 1999). Extrinsic factors which influence the linguistic and interactive performance of students with a hearing impairment are; speech and auditory training, the use of appropriate amplification, the use of appropriate teaching strategies and parental involvement and support (Perigoe, 1999; Simser, 2000).

Speech production is a dynamic process which involves a variety of elements. These elements are; listening, articulation, language, cognition, motor and social skills and emotional
experience (Perigoe, 1999). Children with a moderate or greater hearing loss often access and understand speech stimuli with the use of sensory aids such as hearing aids and FM systems (Toe, 1999). The increased hearing potential enables the student with a hearing impairment to develop listening and spoken language (Simser, 1999). With auditory training deaf and hard-of-hearing students learn to self-monitor their speech during conversations (Perigoe, 1999). Under the guidance of a skilled therapist, training of auditory and speech skills is conducted simultaneously (Ling, 1993). In the speech rehabilitation of children with a hearing impairment parents have an important role (Marlowe, 1999). At therapy sessions and at home, parents practise techniques and targets with their children (Simser, 1999). In the successful speech habilitation of students with a hearing impairment, knowledge of the parent’s cultural and personal beliefs is crucial (Simser, 1999).

5.1.4 Macedonian Culture

The acceptance of cultural values influences the attitudes and behaviour of a culture’s members (e.g., the recognition and acceptance of people with disabilities) (Kretschmer & Kretschmer, 1999; Simser, 1999). Knowledge of these beliefs is important when supporting the education of students with a special needs. For instance, a Macedonian child with a hearing impairment is thought to bring additional shame to their family when they wear hearing aids at school (Luntz, 1998).

In the 1950s and the 1960s, Macedonian people migrated to Australia as a result of their personal desire to live in a democratic country (Luntz, 1998). Although Australia is a multicultural country, migrants from Macedonia chose to live in close-knit suburbs where there was a high concentration of Macedonian people (Stefanov, 1996). Macedonian communities are found in all Australian capital cities (Luntz, 1998). The Macedonian community is well
represented in the suburb in which this research was completed (Australian Bureau of Statistics, 1996).

In the Macedonian community, an individual’s place in the family has precedence over the individual’s place in society (Luntz, 1998). The President of the Republic of Macedonia announced, “The family is the most important cornerstone of every society. Strengthening and cherishing family values is most significant for us” (Trajkovski, 1999, p.2). Macedonian parents take great pride in the appearance and prospects of their children. Traikov (1988) reported that Macedonian parents express their love for their children by buying them expensive gifts. In meeting the needs of their children, Macedonian parents work hard and long hours (Trajkovski, 1999). Because of the parents’ work commitments, child-rearing is often the responsibility of the grandparents in Macedonian families (Traikov, 1988).

In Macedonian families, good bloodline is an important consideration when considering future marriage partners (Traikov, 1988). The general health and success of the individual are criteria for good bloodline. In the evaluation of bloodline, a disability would be considered a negative factor. Parents who have a child with a disability are looked at unfavourably in the Macedonian community (Luntz, 1998).

5.2 Mara’s Case History

Mara was born on the 24th of January 1989. Mr and Mrs Velkovski have three children, Violetta who is 25 years, Alex who is 22 years and Mara who is 11 years old. According to Macedonian culture Mara’s grandparents came to live with her family, as her father was the last sibling married (Bosevski, 2000). At home Mara communicated with her grandparents, parents and other family members in Macedonian (Velkovski, 1999). Sometimes Mara spoke a little English with her brother and sister (Velkovski, 1998). When Mara was six months of age, she
constantly cried and screamed, she often had a high temperature and thick fluid regularly discharged from her ears (Velkovski, 1998). The family doctor told Mrs Velkovski, “It very bad for your little girl for her hearing” (Velkovski, 1998, p.9). On the advice of her family doctor Mrs Velkovski took her daughter to a local Ear, Nose and Throat specialist. Mara’s mother found the specialist’s approach confusing and unacceptable. Mrs Velkovski commented, “Oh my God, I don’t want to meet him anymore. Just when I open the door he opens his mouth and starts talking” (Velkovski, 1998, p.10). With medication, Mara’s symptoms disappeared. “He told me that she has got a very, very bad cold, a runny nose and everything like that. And with medicine it will go away” (Velkovski, 1998, p.14).

Although it is possible to measure the level of hearing in young babies (e.g., the VROA Test) Mara’s hearing was not assessed when she visited the Ear, Nose and Throat specialist (Velkovski, 1998). Mrs Velkovski commented, “Maybe he didn’t know anything because he just check her ears. He didn’t use a computer” (Velkovski, 1998, p.14). Studies by Harrison and Roush (1996) and Meadow-Orlans et al. (1998) found that children who were hard-of-hearing were often diagnosed much later than children who were deaf.

When Mara enrolled in Kindergarten at Summerton Public School she spoke little English (Velkovski School Report, 1994). In Kindergarten Mara communicated with her peers and teacher using visual and tactile measures. For instance, when she wanted to go to the toilet Mara would pull on the teacher’s skirt and point to the toilet (Velkovski School Report, 1994). Concerned about her young student the Kindergarten teacher referred Mara to the school counsellor (Velkovski School Referral, 1994).

Because Mara always seemed to be congested with a cold the Kindergarten teacher also referred Mara to the school nurse (Velkovski School Referral, 1994). In her notes the school
nurse wrote, “Mara is pale, has dark circles under her eyes, her nose is blocked and she is breathing from her mouth, she finds it difficult to speak, her voice is hoarse and nasal, she has numerous articulation errors and she searches for your face when you are speaking. A hearing assessment shows a bilateral moderate hearing loss” (Velkovski School Medical Report, 1994, p.1). The paediatric audiologist at Australian Hearing Services confirmed that Mara had a bilateral moderate hearing loss (Velkovski Australian Hearing Services Report, 1994).

Unable to accept the diagnosis of her daughter’s hearing loss Mrs Velkovski sought a second medical opinion. The Ear, Nose and Throat specialist who Mrs Velkovski had consulted when her daughter was six months old confirmed Mara’s moderate hearing loss (Velkovski, 1998). The specialist noted, “Hearing is down, Mara may be all right one-to-one but not in a crowded classroom. Hearing aids would help” (Velkovski School Medical Report, 1994, p.3). After meetings with the school counsellor, the school nurse and the Itinerant Support Teacher Hearing, Mrs Velkovski gave permission for Mara to wear her hearing aids at school for a trial period.

In Year 1 the school nurse reported that Mara was looking well and appeared to be happy at school. The school nurse also commented that Mara was more sociable and was beginning to get a basic understanding of English. In Year 2 understanding Mara’s speech became a challenge as she spoke quietly and quickly and often mispronounced her words (Velkovski Itinerant Teacher Hearing Report, 1996). When Mara was in Year 3 the class teacher and her itinerant hearing teacher noted that they had difficulty understanding Mara’s speech (Velkovski Itinerant Support Teacher Hearing Report, 1997; Velkovski School Report, 1997). In order to follow Mara’s conversations the listener required prior knowledge of the topic being discussed. As this was not always possible the class teacher and itinerant teacher thought Mara would benefit from
intensive speech intervention (Velkovski Review Meeting, 1997). Another year was to pass before Mara had speech therapy at the local Community Health Centre.

When Mara was in Year 3 a new school nurse was appointed to Summerton Public School. Mid-way through the year when the nurse was reviewing Mara’s medical needs at school, Mara mentioned to the nurse that she was having difficulty seeing the chalkboard in the classroom. Although the Year 3 class teacher and the Itinerant Teacher Hearing thought Mara had no problems reading and completing activities from the chalkboard, the school nurse referred Mara to the eye clinic at the local hospital. At Mrs Velkovski’s insistence, the doctor at the hospital prescribed glasses for Mara. Mara’s mother had no problems with her younger daughter wearing glasses. Mrs Velkovski stated, “I said OK. They didn’t look ugly!” (Velkovski Review Meeting, 1998, p.6). Despite the fact that her mother paid $150 for a pair of trendy glasses, Mara chose not to wear her glasses at school.

After the distraction of Mara’s glasses, it was important to refocus on her listening and talking concerns at school. The distraction also highlighted the need for collaboration among members of Mara’s Learning Support Team. At a meeting attended by the school counsellor, the class teacher, Mrs Velkovski and the Itinerant Teacher Hearing, Mrs Velkovski gave permission for her daughter to have speech therapy at the local Community Health Centre. After waiting five months, Mara had a six-week block of Speech Therapy in Year 4. As Mara had difficulty generalising the skills learnt in her initial block of speech therapy, a second block of therapy was requested towards the end of the year. Due to limited interest and support from Mrs Velkovski, Mara’s second block of therapy was cancelled after the second week (A. Clark, personal communication, December 4, 1998).
In Year 5 Mara was fitted with programmable hearing aids. These hearing aids provided a closer fit (i.e., were a closer match) to Mara’s hearing loss (Velkovski Australian Hearing Services Report, 1999). When Mara wore her new hearing aids she thought her hearing was the same as her peers (Velkovski Researcher Diary, 1999). Mara told her mother, “Mum I feel much better with this one!” (Velkovski, 1999, p.4). Benefit from her new hearing aids was limited due to Mara’s chronic health problems (e.g., she was always heavily congested with a cold). Although Mara was now ten years old she still suffered from the effects of otitis media (Velkovski, 1999).

As a result of Mara’s problems breathing when she slept at night, Mrs Velkovski sought further medical assistance for her young daughter. The local doctor referred Mara to the same Ear, Nose and Throat specialist she had previously consulted (when she was 6 months and 5 years old). Mrs Velkovski told the specialist that her daughter had persistent nasal obstruction, snored loudly and had no history of tonsillitis. After an examination of Mara’s throat and nasal passages, the specialist reported that “Mara had large, chronically infected tonsils and that her nose was blocked by adenoidal tissue” (Anderson, 1999, p.1). The specialist recommended that Mara should have an operation to remove her adenoids and tonsils (Anderson, 1999). Once again Mrs Velkovski sought a second medical opinion. The second Ear, Nose and Throat specialist confirmed Dr. Anderson’s findings (James, 1999). In April 2000 Mara was admitted to the local hospital and had her adenoids and tonsils removed (James, 2000).

After Mara’s operation there was a noticeable improvement in her health. She had fewer colds, there was no regular discharge from her nose and she had no infections in her ears. At school Mara could stay on task for longer periods of time and she didn’t appear so tired at the end of the day (Velkovski Researcher Diary, 2000). Although there was an improvement in
Mara’s general health, her hearing loss remained the same. In preparation for her transition to high school Mara was fitted with smaller and less obtrusive in-the-ear hearing aids in Term 3 (2000). Still uncomfortable with her use of hearing technology Mara never wore her new and much smaller hearing aids at school.

In summary, from the time of her birth Mara has had numerous colds and sinus infections. Despite Mara’s chronic health problems her hearing disability was not diagnosed until her first year at school. Following the diagnosis of her hearing loss, personnel at Australian Hearing Services recommended the use of hearing technology. Whilst she was enrolled at Summerton Public School Mara was fitted with three different types of hearing aids to accommodate her changing needs at school. Unfortunately, Mara did not take full advantage of the hearing technology because of inconsistent use of her hearing aids. At high school Mara has chosen not to wear her hearing aids.

5.3 Profile of the Participants and the Learning Environment

In the examination of Mara’s inclusive placement, knowledge about the school environment (i.e., the students, teachers and attributes of the classroom) is important.

5.3.1 Mara Velkovski

Mara enjoys being the youngest child in the family (e.g., special treats, new clothes and an endless supply of money for the school canteen). In the Velkovski family, when it comes to Mara’s requests “there is no such thing as no!” (Velkovski, 1999, p.4). Her mother further commented, “She is like my mother-in-law, whatever she wants (Mara) she must have it!” (Velkovski, 1999, p.4). Although Mara had a distant relationship with her brother Alex, she adored her older sister, Violetta. Mara wanted to go to the same high school as Violetta, complete her Higher School Certificate like Violetta and go to university like Violetta.
At home Mara enjoys listening to music (e.g., *Spice Girls*) and watching television (e.g., *The Simpsons, Dawson's Creek* and *Charmed*). Mara watches television from the time she arrives home from school till fairly late at night (Velkovski Student Diary, 1998). Whenever Mara listens to the radio or watches TV she sits close to the sound source and has the volume turned up loud (Velkovski, 1998). Until Mara was in Year 5, she went to Macedonian dancing every Friday night with other family members (Velkovski, 1998). On special occasions, her cousins would come to her home and play board and computer games (Velkovski, 1999).

Mara is a quiet and shy student (Velkovski School Report, 1994-2000). Mrs Velkovski reported that her daughter was too shy to ask her teachers if she could sit at the front of the room (Velkovski, 1998). Whilst enrolled at Summerton Public School, Mara rarely socialised with her peers outside school (e.g., Mara has not celebrated her birthday with friends nor has she been invited to a friend’s birthday party).

In the first student interview (1998) Mara revealed that she didn’t have any friends in Kindergarten, Year 1 and Year 2. Throughout her primary school education Mara has only had one close friend. Like Mara, Cveta is Macedonian and has a quiet personality. Although they have been best friends since Year 3, Mara and Cveta have only played at each other’s house on a few occasions.

Until the diagnosis of Mara’s hearing loss in Kindergarten, she was not aware of her hearing disability. With a strong desire to be normal like the other students at Summerton Public School, Mara was reluctant to make her invisible disability visible. In the second student interview (1998) Mara revealed that she belonged to the hard-of-hearing group who used their voice to communicate. Over the years Mara has developed skills and strategies which helped her participate and interact in her talking environment. For instance, Mara always sits close to the
television and she is an excellent lip-reader. At school Mara generalised listening skills and strategies which she developed into different aspects of her learning (e.g., only talking to people when she was standing still and watching their face).

5.3.2 Mrs Velkovski

Mrs Velkovski grew up in a poor village in Macedonia. Mara’s mother commented, “It was very hard. Not enough money nothing. You just work on the farm that’s it” (Velkovski, 1999, p.9). Twenty-five years ago Mrs Velkovski migrated to Australia with her cousin. Since her arrival in Australia, Mrs Velkovski has always lived in the same suburb. In her workplace and in the area where Mrs Velkovski lives, there are a number of Macedonian people. This is in keeping with Stefanov’s (1996) finding that Macedonian people lived in cluster groups (particular suburbs) in each of the capital cities in Australia.

Although Mrs Velkovski has been in Australia for over twenty-five years she only has a basic command of English. When asked whether her daughter consumed milk products Mrs Velkovski commented, “No, she never eats cornflakes” (Velkovski, 1999, p.9). Later in the study Mrs Velkovski disclosed that Mara ate lots of ice cream, often put packets of cheese sticks in her mother’s shopping trolley and couldn’t decide the flavour of her favourite yoghurt (Velkovski Review Meeting, 2000). Despite Mrs Velkovski’s basic understanding of English, she has acquired knowledge of some Australian mannerisms. For instance, in the first parent interview (1998) Mrs Velkovski knocked on the wooden table for good luck.

Mrs Velkovski was a busy person as a result of her home and work commitments. This meant she was often too busy to listen to her daughter read, too busy for her daughter to have a friend around to play, too busy to take her daughter to speech therapy, too busy to monitor her daughter’s late night television viewing habits and too busy to prepare Mara’s food for school
each day. Consequently Mara did not practise her reading at home, relied on television for her entertainment at home, did not take advantage of professional expertise and ate lots of junk food from the school canteen (Velkovski Researcher Diary, 1998-2000).

It has always been Mrs Velkovski’s wish that Mara attended her local school (Velkovski, 1998). During the first interview Mrs Velkovski commented, “We live across the road from the school, this is Violetta’s, Alex’s and Mara’s school” (Velkovski, 1998, p.12). Although uncertain of Mara’s academic future, Mrs Velkovski has the personal expectation that her younger daughter will have a similar educational and career pathway as her older daughter Violetta. Though appreciative of the extra assistance given to her daughter, Mrs Velkovski was adamant that Mara should be treated the same as other students in the class and school.

Mrs Velkovski was embarrassed by her youngest daughter’s hearing loss (Velkovski, 1998). Because of her embarrassment, she did not inform the paternal grandparents of her daughter’s hearing loss, even though they lived in the same house. She also refused to discuss her daughter’s hearing disability at her workplace (Velkovski, 1999). Mara’s use of hearing technology caused her mother further pain and anxiety. Mrs Velkovski commented, “It is not acceptable, everyone will know that there is something wrong with Mara” (Velkovski School Medical Report, 1994, p.3). In Mrs Velkovski’s life, personal appearances took precedence over her daughter’s education. After an appointment at Australian Hearing Services Mrs Velkovski remarked, “The people at the hearing centre simply told them that Mara should sit near the front and that’s all!” (Velkovski School Medical Report, 1994, p.3). In denial of her daughter’s hearing loss, Mrs Velkovski would only accept the use of preferential seating strategies in her daughter’s education.
In the first parent interview (1998) Mrs Velkovski commented that she managed at school without hearing aids and so would her daughter. Mara’s mother commented, “If you check me I think my ears are more damaged than Mara’s but I never wear hearing aids” (Velkovski, 1998, p.6). During the first parent interview (1998) Mrs Velkovski also disclosed that she understood the difference between hearing and listening. In this interview Mrs Velkovski remarked, “When I sit at the back of the class I can hear the teacher but you not understand you know” (Velkovski, 1998, p.7). According to Higgs (1998) “hearing is the awareness of a sound when it occurs and listening is the skill of actually detecting, interpreting and comprehending the sound” (p.50). Due to her small stature Mrs Velkovski usually sat at the front of the class. With preferential seating, Mrs Velkovski achieved some good academic results at school (Velkovski, 1998).

Mara’s use of hearing technology caused her mother great anxiety and embarrassment. Throughout Mara’s primary school education Mrs Velkovski constantly questioned the need for her daughter to wear hearing aids. Whenever things went wrong in Mara’s education at Summerton Public School Mrs Velkovski always blamed her daughter’s hearing aids (Velkovski Review Meeting, 1995–2000). Because of her mother’s attitude, Mara did not make best use of her hearing aids at school or during intervention programs such as her speech therapy program.

5.3.3 Mara’s Class Teacher and Support Teachers

In the examination of Mara’s education, knowledge of her teacher’s opinions and perceptions towards inclusion and her inclusive placement was essential (Westwood, 1997). The six teachers who participated in this case study completed the Survey of Teacher Opinions and Perceptions (Ringlaben & Price, 1981) (Appendix G). Findings from the survey are shown in Figure 8. All teachers surveyed in this study indicated that they had a limited understanding of
NSW Department of Education and Training policy on inclusion (Item 1) and that they felt unprepared for implementing inclusion in their classroom (Item 2). In the successful inclusive education of students with a hearing impairment, knowledge of current educational policy and practice is important (Winter & Van Reusen, 1997). Most of the teachers surveyed were willing to have a child with special needs in their classroom (Item 3). The necessity for students with special needs to be accepted and not forced upon classroom teachers was reported by Buell et al. (1999). All teachers in this study felt confident that they could be flexible and open-minded when working with other educational personnel (Item 4). Finally, most teachers in this study felt confident in their ability to teach students with a hearing impairment (Item 5). This finding was in keeping with results from the study by Sodak et al. (1998).

![Graph](image)

**Figure 8.** Survey of the teachers' opinions and perceptions of inclusion in Case Study Two. (Ringlaben & Price, 1981).
In the discussion of Mara’s inclusive education, knowledge of the qualifications and teaching experience of her teachers was also necessary (Appendix C) (Table 6). Both class teachers in the study (Teacher 4 and Teacher 5) had a degree in education (Primary and Music) and both teachers had limited experience teaching primary school children. Teacher 4 transferred to primary teaching, “because she enjoyed teaching and often teaching was the last thing you did at high school” (Velkovski Researcher Diary, 1998, p. 12). Teacher 1 who had a Degree in Education and Teacher 6 who had a Diploma of Teaching, were both Macedonian Community Language teachers at Summerton Public School. Because the Macedonian teachers only worked three days each week at Summerton Public School, their teaching experience was somewhat limited in that they did not participate in whole school assemblies or school sport activities. Teacher 2, who had a degree in Education (Primary) was a class support teacher. This teacher, who was yet to receive a full-time teaching position, had only taught upper primary classes. Teacher 3 taught regular classes from Kindergarten to Year 6 for seventeen years and for the last eight years has taught students with hearing impairment from Kindergarten to Year Twelve. Teacher 3 has a Master of Education and is the only person participating in this case study who had Special Education training. This is not unusual as Villa et al. (1996) reported that many teachers in the regular classroom did not have training in special education. Only two teachers who participated in this study had permanent teaching positions (Teacher 3 and Teacher 4). Teachers in a casual position have limited opportunities to establish and develop their teaching skills and expertise (Chorost, 1988). They also have insufficient time to become acquainted with school practice (e.g., use of the school photocopier) and have little time to develop a positive relationship with other members in the school community (e.g., teachers, administrative staff, students and parents).
Table 6

Teacher Information in Case Study Two

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Qualifications</th>
<th>Number of years teaching</th>
<th>Grades taught</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bachelor Education (Primary)</td>
<td>5</td>
<td>K-Yr.6 Community Language (Casual)</td>
</tr>
<tr>
<td>2.</td>
<td>Bachelor Education (Primary)</td>
<td>6</td>
<td>Yr. 4, 5, 6 (Casual)</td>
</tr>
<tr>
<td>3.</td>
<td>Graduate Diploma (Hearing)</td>
<td>24</td>
<td>K-Yr. 6 (Regular classroom); K- Yr. 12 (ISTH)</td>
</tr>
<tr>
<td>4.</td>
<td>Bachelor Education (Music)</td>
<td>7</td>
<td>Yr. 7, 8, 11, 12 (4 years); Yr. 3, 4 (3 years)</td>
</tr>
<tr>
<td>5.</td>
<td>Bachelor Education (Primary)</td>
<td>4</td>
<td>K- Yr. 6 (Casual)</td>
</tr>
<tr>
<td>6.</td>
<td>Diploma of Teaching</td>
<td>10</td>
<td>K-Yr.6 Community Language (Casual)</td>
</tr>
</tbody>
</table>

5.3.4 The Classroom Environment

Knowledge about the classroom environment was crucial in the discussion of Mara’s education at Summerton Public School. In the first year of the study the classroom was located on the ground floor of a brick building. The classroom was quiet as there were only two classrooms on this floor. The classroom in the second year of the study was located on the first floor of a brick building. Sometimes outside noise was a problem in this classroom because there were four classes on the first floor and because groups of students frequently worked in the carpeted hallway.

In both years of the study, Mara’s classroom was carpeted, quite spacious and had good natural light. In the first and second year of the study, the students’ desks were arranged in
rectangular cluster groups which faced the chalkboard. During both years of this study Mara sat at the front of a cluster group with the exception of one term. This exception occurred when a student who was disruptive and quite outspoken enrolled in her Year 4 class. Because of Mara’s need for a quiet working environment she sat in the middle of the end cluster group.

In the classroom, Mara’s class teachers used a variety of teaching strategies. These strategies included whole class, small group and individual instruction. In both classes students were encouraged to share their viewpoints in class and to talk quietly at their tables.

5.3.5 Class Members

Schulz et al. (1991) found the relationship of class peers with the special needs student influenced the success of the inclusive placement. Hence, knowledge of Mara’s classmates was an important aspect of this study. A profile of the students in both years of the case study is shown in Table 7. In both years of this study most students in Mara’s class came from non-English speaking backgrounds, with a predominant number of students coming from an Arabic background. Although there were more Arabic boys than Arabic girls in both classes, it was the Arabic girls who dominated group and class conversations. In this study, class teachers commented on the students’ academic performance (e.g., progressing towards Stage 3 outcomes is a challenge for many students in the class) and the students’ social performance (e.g., some vocal and egocentric students who like to be the centre of attention).
Table 7

Class Profile in Case Study Two

<table>
<thead>
<tr>
<th>Research year</th>
<th>Students in class</th>
<th>Country of origin</th>
<th>Teacher comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
<td>Arabic</td>
</tr>
<tr>
<td>Year 1</td>
<td>16</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>Year 2</td>
<td>17</td>
<td>12</td>
<td>23</td>
</tr>
</tbody>
</table>

With an understanding of the school environment, the five variables which influenced Mara’s education at Summerton Public School have now been investigated in this study.

5.4 Exploring Mara’s Inclusive Education

5.4.1 How Successful is Mara’s Educational Placement?

Data from the Bunch (1987) *Integration Rating Guide* (Appendix I) revealed that Mara was successful in her inclusive setting. Results from the *Integration Rating Guide* indicated that Mara should obtain passing grades with the recommended level of support. Findings from the *Integration Rating Guide* recommended that Mara should be integrated for most subjects with support from an itinerant hearing teacher for key subjects.
5.4.2 An Accurate Assessment of Mara’s Inclusive Education

Mrs Velkovski was happy with her daughter’s education at Summerton Public School because neither Mara nor her teachers complained. Quantitative data from the Integration Success Rating Guide also revealed that Mara was performing satisfactorily at school. Because both reports only provided an outline of Mara’s performance at school a more detailed and accurate understanding of her education was required. In this case study a data collection tool designed specifically for this research examined the five variables which influenced Mara’s education (e.g., her academic, social and physical performance, the school environment and family support). The impact of these variables on Mara’s inclusive placement is discussed in the following section of this study.

5.4.3 Variable One (Academic Performance)

In her desire to blend into the regular classroom environment Mara always completed the same work as her peers. Although Mara received preferential seating in the classroom she did not receive preferential treatment when teachers assessed her work. In the case of her favourite subject mathematics, she knew her marks were the result of personal effort and not preferential treatment. Unfortunately, there were times when her teachers used her hearing impairment as a reason for the poor standard of her work. In Year 5 the teacher responsible for her reading group commented, “That’s all right for some one with a hearing loss” (Velkovski Researcher Diary, 1999, p.12).

5.4.3.1 Mara’s Personal Report Card

At school Mara enjoyed art, mathematics and reading lessons (Velkovski 1st Student Interview, 1998). Her favourite novel was Charlie and the Chocolate Factory. During the second student interview (1998) Mara commented, “My best is my times tables and division. My
worstest is English and Community Language” (p.5). Mara found comprehension in both English and Macedonian difficult (Velkovski 1st & 2nd Student Interview, 1998). After her fourth year at school Mara only spoke a little Macedonian with her parents at home (Velkovski, 1998). Hence, Mara was not literate in her native language and she had only a basic command of English.

In class and group conversations Mara revealed that she preferred to listen rather than talk. Mara was not concerned about the messy and careless presentation of her written work. In Year 4 Mara commented, “I can do it if I try ... but it doesn’t matter” (Velkovski Researcher Diary, 1998, p.1). In response to the question “Can people read your writing?” Mara answered “Not really!” (Velkovski 1st Student Interview, 1998).

Extrinsic motivation was an important pre-requisite for Mara’s learning (e.g., a school award). In her Year 5 Report (1999) she wrote, “I had a great year in 5S. I am ready to go into Year 6. At school this year I have achieved lots of different things. I have earnt a Bronze Award and a Principal’s Award.” External factors were also the reason for many of Mara’s absences from school. Each year her mother and father took her for a two-week holiday during school time. Despite the fact that few girls in her class were allowed to go on overnight class excursions to Canberra and Hill End, Mara enjoyed going on both excursions. Despite Mara’s negative attitude to her hearing loss, she enjoyed taking the day off from school for her appointments at Australian Hearing Services. Her appointments at Australian Hearing Services were usually thirty minutes in duration.

Although Mara wanted to be just like her older sister, her attitude to learning was inconsistent. Whereas Mara worked diligently in mathematics as she was interested and performed well in this subject, she was not interested and performed poorly in subjects which required reading, understanding and personal commitment for a sustained period of time. For
instance, Mara had no problem submitting an incomplete reading log or research project. With limited motivation to learn and work at school, Mara was not looking forward to the next six years of her education. She will complete her Higher School Certificate in Year Twelve because this is what her mother wanted (Velkovski 4th Student Interview, 1999). Both Mara and her mother have realised that she needs to work harder at school, if she is going to complete her HSC and have a career in teaching (Velkovski, 1998; Velkovski 2nd Student Interview, 1998).

5.4.3.2 The Teacher's Thoughts on Mara's Academic Performance

Mara enrolled at Summerton Public School with little knowledge of English. In Kindergarten she learnt to write her first name, recognise and match all letters of the alphabet and identify and count numbers from 1 to 10. Although Mara tried hard to complete set tasks in Kindergarten, her teacher reported that she was easily distracted (Velkovski School Report, 1994). In Year 1 the class teacher noted that Mara had a firm understanding of important mathematics concepts, enjoyed reading and tried hard in spelling activities (Velkovski School Report, 1995). In the report the teacher also noted that Mara needed to take greater care with her work, that her homework was often incomplete and that she would benefit from revising her spelling words.

According to her class teacher, "Mara has made good progress in reading, and spelling in Year 2" (Velkovski School Report, 1996). The teacher also noted that Mara's imaginative stories were often spoilt by her careless and messy work (Velkovski School Report, 1996). In Year 3 the class teacher noted that Mara worked well and achieved some good results in reading, mathematics and spelling (Velkovski School Report, 1997). In the Year 3 Basic Skills Test Mara scored mid band 3 for Literacy and Numeracy (Table 8). Areas of weakness in the Literacy Test
were comprehension, spelling and grammar. Areas of weakness in the Numeracy Test were estimating, problem solving and properties of 2D/3D shapes.

Table 8
The Percentage of Students Across the State Achieving Each Skill Band in Literacy and Numeracy

<table>
<thead>
<tr>
<th></th>
<th>Skill band 1</th>
<th>Skill band 2</th>
<th>Skill band 3</th>
<th>Skill band 4</th>
<th>Skill band 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy</td>
<td>16%</td>
<td>20%</td>
<td>27%</td>
<td>20%</td>
<td>17%</td>
</tr>
<tr>
<td>Numeracy</td>
<td>11%</td>
<td>19%</td>
<td>31%</td>
<td>21%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Note: From NSW Department Education and Training, Year 3 Basic Skills Test, 1997.

Early in Year 4 the class teacher made an astute comment about Mara’s approach to learning. The teacher commented, “You think she’s trying her best but then you realise she’s just giving you the answers. She could do a lot better if she expected more of herself!” (Velkovski Researcher Diary, 1998, p.1). This was especially the case in reading and comprehension activities (Velkovski School Report, 1998). On another occasion when Mara was interested and focused on the task the Year 4 teacher remarked, “When Mara tries and makes an effort, it is like she’s someone else!” (Velkovski Researcher Diary, 1998, p.2). Mara’s excellent projects on the Rainforest and Solar System revealed glimmers of her academic potential (Velkovski School Report, 1998). In her Yearly Report (1998) the Year 4 teacher also noted that Mara had achieved good results in mathematics, spelling and reading.

When Mara was in Year 5 her teacher commented that she was working towards
Stage 3 Outcomes for reading and mathematics (Velkovski School Report, 1999). The results of the Year 5 comparative test also revealed significant improvement in Mara’s comprehension, mathematics and spelling. In the Year 5 Basic Skills Test Mara scored mid band 4 for the Literacy and the Numeracy Test (Table 9). Areas of weakness in the Literacy Test were vocabulary, grammar and comprehension. Areas of weakness in the Numeracy Test were estimating, problem solving and 2D/3D space.

Table 9
The Percentage of Students Across the State Achieving Each Skill Band in Literacy and Numeracy

<table>
<thead>
<tr>
<th></th>
<th>Skill band 1</th>
<th>Skill band 2</th>
<th>Skill band 3</th>
<th>Skill band 4</th>
<th>Skill band 5</th>
<th>Skill band 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy</td>
<td>1%</td>
<td>5%</td>
<td>16%</td>
<td>31%</td>
<td>27%</td>
<td>20%</td>
</tr>
<tr>
<td>Numeracy</td>
<td>1%</td>
<td>6%</td>
<td>15%</td>
<td>27%</td>
<td>28%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Note. From NSW Department Education and Training, Year 5 Basic Skills Test, 1999.

In her Year 6 Report the teacher commented that Mara easily grasped new concepts in mathematics, was a keen reader and wrote well-structured and descriptive responses to literature (Velkovski School Report, 2000). The teacher also noted that Mara needed to take more time in the written presentation of her work.

5.4.3.3 Academic Performance Support Strategies

Mara participated in the same activities and completed the same work as her peers. She accessed the class program with specialised assistance (e.g., Itinerant Teacher Hearing support), the implementation of appropriate teaching strategies (e.g., preferential seating) and the use of hearing technology (e.g., her hearing aids). At school Mara’s work was assessed using the same
criteria as her peers. Hence, if her homework was incomplete she was kept in at lunchtime or if her work was messy she had to re-write the activity.

5.4.3.4 Analysis of Academic Performance

Data from Mara’s school reports revealed that she had made satisfactory academic progress at school in Year 4 and Year 5. Amongst the educational terminology used in Mara’s school reports there was some conflicting information. Although Mara was reported to be a consistent and conscientious worker in her June school report, in the yearly report the class teacher highlighted the need for Mara to take more time and greater care with her work. The reliability of data in Mara’s school report was also a concern because of assessment criteria used by the teacher. For example, when reporting on student progress in spelling, data from the class comparative test was used. Although Mara correctly remembered words from the February test to the November test there were always numerous errors in her class written work.

Mara’s results from the Year 3 and Year 5 Basic Skills Tests provided an accurate assessment of her academic performance at school. In both tests Mara performed in the middle range for Literacy and Numeracy. The improvement in her scores from the Year 3 to the Year 5 Basic Skills Tests and the improvement in her results in the Year 5 comparative Tests showed that Mara had the potential to learn and remember new skills and vocabulary which she had been taught at school.

Data in this study also showed that extrinsic motivation was an influential factor in Mara’s learning at school. With her reliance on external factors and as a result of her quiet nature, the assessment of her current academic needs was a difficult and challenging task. Each year at school Mara had visible concerns (e.g., the satisfactory completion of her class work) and invisible concerns (e.g., her ability to understand and follow the teacher’s instructions, her ability
to stay on task, her confidence to seek clarification and her motivation to learn). Sometimes at school Mara’s hearing disability was used by her teachers as an excuse for the poor standard of her work. Reagan (1988) found in the successful inclusive education of students with special needs there are no such exceptions or distinctions.

5.4.4 Variable Two (Personal/Social Performance)

Mara is a shy and quiet person and has few friends at school (Nix Mainstream Checklist results, Meadow-Kendall Inventory results, Teacher Survey, Velkovski, 1998). Because of her mother’s busy lifestyle she had few opportunities to play with friends or family members at home. On rare occasions, Cveta her close friend from school, played at Mara’s home. The girls played board games, watched videos and sometimes intimidated the neighbours. Mara thought there was nothing wrong playing ‘Knock and Run’ on the neighbour’s door as, “We don’t get into trouble and no-one sees us!” (Velkovski Researcher Diary, 1998, p.13).

5.4.4.1 Mara at School

At school, Mara became reliant on her close friend Cveta. Cveta was always in the same class as Mara and was rarely absent from school. In Year 5 when Cveta made a change in her high school application Mara made a similar change in her application. During an itinerant session Mara commented, “My first choice is Smithville because my friend Cveta is going there” (Velkovski Researcher Diary, 1999, p.4). At a recent high school orientation day, Mara was devastated when Cveta socialised with her cousin and friend from another school and left her all alone. Mara commented, “I just hung around Cveta whether she wanted me or not!” (Velkovski Researcher Diary, 2000, p.21). The incident at the high school orientation day highlighted the fact that Mara had few friends at primary school and that she lacked appropriate friendship-
making skills. Teachers who participated in this study confirmed these weaknesses in Mara’s self-confidence (Velkovski *Meadow-Kendall Inventory* results, 1998-1999).

At the end of each school term Mara enjoyed participating in a games session with Hussein and Fatima (the two other hearing-impaired students at Summerton Public School). During these sessions there was a definite change in Mara’s personality. “It’s like she becomes this eager and very loud person who just loves to party” (Velkovski Researcher Diary, 1998, p.2). For a brief period, Mara’s hearing disability and use of hearing aids were forgotten. (It is important to understand that all three students used some form of hearing technology). Prior to one games session Mara made an astute comment about the difficulty using hearing technology at Summerton Public School. She remarked, “I know it’s hard for Fatima because it’s hard for me. And I don’t have that thing (the FM) around my neck!” (Velkovski Researcher Diary, 1998, p.4).

Despite Mara’s concerns about her appearance when she wore her hearing aids, she was not worried about her personal hygiene and grooming. Findings from the *Meadow-Kendall Inventory* (Appendix J) confirmed a weakness in Mara’s self-image (Figure 9). All respondents to the survey revealed that Mara was embarrassed when she wore her hearing aids (Item 26) and that she took little pride in her physical appearance (Item 4).
Figure 9. Results of the Meadow-Kendall Assessment Inventory in Case Study Two.

From Year 4 onwards Mara’s personal hygiene, especially her unpleasant body odour, was a problem at school. One day after swimming lessons Mara remarked, “I had my bath in the pool today Mrs Carter” (Velkovski Researcher Diary, 1999, p.15). Although Mara often commented that she showered without using soap because the soap was all wasted or that she washed her hair without shampoo because it too was all wasted, her mother commented that this was not the case at home (Velkovski, 1999). In the second parent interview (1999) Mrs Velkovski disclosed that her daughter did not like to do it in reference to Mara’s oily and neglected hair. Mara’s mother also believed her daughter’s greasy, dirty pimple covered skin was because of the blood and not as a result of her daughter’s poor hygiene (Velkovski, 1999). Mrs Velkovski also believed a treatment plan for her daughter’s skin was not required because only old people need to use the cream on their face (Velkovski, 1999).
5.4.4.2 Personal/Social Performance Support Strategies

Throughout primary school Mara and Cveta have supported each other at school. Mara provided Cveta with academic assistance (e.g., helped her with her mathematics homework) and Cveta provided Mara with emotional and physical support. At school Cveta was Mara’s classroom companion, her playmate at recess and lunchtime and her partner/buddy on school excursions.

When Mara was in Year 5, the teacher developed a personal hygiene and grooming program for the class. This program focused on healthy food and lifestyle habits. Teachers also complimented Mara when her hair was clean and well groomed.

5.4.4.3 Analysis of Personal/Social Performance

Findings from this case study revealed that Mara was a quiet student who had few friends at school (Velkovski Mainstream Checklist results and Meadow-Kendall Inventory results). Throughout primary school Mara only had only one special friend. Although Cveta was shy and quiet like Mara, she was able to manipulate her lonely friend with a hearing impairment. At times Mara’s desire to conform to her friend’s wishes took priority over her family’s wishes (e.g., the selection of a high school). At the high school orientation day, Mara’s reliance on her close friend revealed her lack of appropriate social and group interactive skills. These skills need to be addressed prior to Mara’s transition to high school.

Personal hygiene and appearance were not priorities for Mara nor her mother. Mara’s hair was messy and greasy, her face was covered in pimples and blackheads and her body had an unpleasant odour. Mrs Velkovski appeared not to be worried about her daughter’s appearance. Although Mara was aware of the physical ramifications of not looking after her skin (e.g., her older sister has holes in her face where she once had pimples), she did not care or was unaware
of the social ramifications of her complacent attitude. Her Year 6 teacher commented, “The girls who sat with Mara at the swimming carnival were definitely not impressed with her smell either!” (Velkovski Researcher Diary, 2000, p.18).

At school, hygiene and lifestyle programs which focused on Mara’s personal needs had little impact on her personal outlook. She was not interested in making changes in her eating, cleanliness and grooming habits. Mara’s lack of concern about her hygiene and personal appearance had negative ramifications on her relationship and interaction with her peers. In class, students (and teachers) often had difficulty understanding Mara’s speech and on most occasions felt uncomfortable when they were near her.

5.4.5 Variable Three (Physical/Interactional Performance)

In the examination of Mara’s inclusive placement, accurate knowledge of her physical needs and performance was important.

In her first year at school Mara constantly had a cold and seemed fatigued (Velkovski School Report, 1994). In the Kindergarten classroom Mara communicated her needs using visual and tactile means (e.g., Mara would pull on the teacher’s skirt and point to the toilet if she wanted to go to the toilet).

In Year 1 the teacher reported that Mara spoke quickly and softly and often required assistance to stay on the topic of the conversation (Velkovski School Report, 1995). In Year 2 the teacher noted that Mara could sometimes express her ideas clearly but often had difficulty following instructions in class (Velkovski School Report, 1996). The Year 2 teacher commented that with insufficient knowledge of the task, Mara had problems settling down and satisfactorily completing her work (Velkovski School Report, 1996).
In Year 3 the teacher reported that Mara’s speech was at times difficult to understand (Velkovski School Report, 1997). On her school report the Year 3 teacher noted, “Mara is a sensible girl who must learn to articulate her words so that she can be fully understood by those around her. Mara likes to contribute in all lessons although sometimes she hasn’t heard everything said!” (Velkovski School Report, 1997). When reviewing Mara’s placement the Year 3 teacher wrote, “When focused she understands tasks, if she is not concentrating Mara was unsure of what is required” (Velkovski Hearing Review Form, 1997, p.1).

In Year 4 the class teacher commented that Mara spoke quietly and quickly and was reluctant to contribute to class discussions (Velkovski School Report, 1998). The teacher further noted that understanding and following Mara when she read aloud in class was a challenge for everyone, including the teacher (Velkovski Review Meeting, 1998). In the Year 4 classroom Mara interacted with the teacher and other members of the class using one or two word utterances and her peers often talked for her (Velkovski Researcher Diary, 1998). At times the Year 4 teacher became quite frustrated with Mara’s speech. Once the class teacher remarked, “I’m doing the best I can. I still can’t hear her properly. I even say yell! What else can I do?” (Velkovski Researcher Diary, 1998, p.2).

When Mara was in Year 5 her teacher and classmates continued to have difficulty understanding her speech. On one occasion her Year 5 teacher reported, “Mara we can’t hear you, we are trying so hard to hear you please talk up louder!” (Velkovski Researcher Diary, 1999, p.6). At the annual Review Meeting the Year 5 teacher disclosed that Mara rarely answered questions in class because of adverse comments from some of her peers. During Year 5 Mara developed the habit of only wearing her hearing aids when the Itinerant Teacher Hearing was present.
In Year 6 the class teacher commented that Mara enjoyed participating in class conversations when the topic was familiar (Velkovski School Report, 2000). As a result of Mara’s limited general knowledge she often was a passive participant in class conversations (Velkovski Researcher Diary, 1998-2000). When Mara was in Year 6, her Macedonian teacher disclosed that she also had difficulty understanding Mara’s speech (Velkovski Researcher Diary, 2000).

5.4.5.1 Impact of Mara’s Hearing Impairment

Mara has a bilateral moderate high frequency hearing loss (Velkovski Australian Hearing Services Report, 1994). In Figure 10 the broken and unbroken lines indicate the level of Mara’s hearing in her left and right ear respectively. Due to her hearing loss Mara had difficulty hearing high frequency sounds such as /fl/, /s/ and /th/ in English. These sounds assist understanding in English (e.g., /s/ indicates ownership and plurality and /th/ indicates position). With the use of her hearing aids Mara could hear all sounds in the speech spectrum (i.e., the sounds in the enclosed curved shape in Figure 10).
Figure 11. Mara’s current audiogram displayed on the frequency and intensity of familiar sounds spectrum used by Northern & Downs (1984).

5.4.5.2 Physical/Interactional Performance Support Strategies

In Term 3, 1994 Mara was placed on Itinerant Teacher Hearing caseload. On caseload Mara received two sessions of 45 minutes each week. One session involved in-class support and the other session was a withdrawal session which focused on Mara’s listening, talking and linguistic skills.

In class Mara maximised the use of her residual hearing with the use of her hearing aids and by sitting within close proximity of the speaker. In Kindergarten Mara was fitted with bilateral behind-the-ear hearing aids. After a discussion between the class teacher, Mrs Velkovski and the Itinerant Teacher Hearing, it was decided that Mara would only wear her hearing aids in the classroom at school. In Year 5 Mara was fitted with programmable hearing aids. Towards the end of Year 6 Mara was fitted with smaller in-the-ear hearing aids in preparation for her transition to high school.
In Year 4 Mara received six sessions of speech therapy at the local Community Health Centre. Activities from her speech therapy program were reviewed during Mara’s itinerant hearing sessions at school. Although Mara could correctly articulate the targeted sounds in isolation at the conclusion of the speech program she could not generalise these sounds in her conversational speech (Velkovski Speech Pathologist Report, 1998). After numerous requests by the Itinerant Teacher Hearing, Mara received a second block of speech therapy later in the year. Because of Mrs Velkovski’s non-attendance at sessions and Mara’s refusal to wear her hearing aids at sessions, the second block of therapy was cancelled after the second session. The speech pathologist commented, “It is very important for parents to attend sessions with their children as they are required to repeat activities at home. For speech therapy to be beneficial she needs to be able to monitor her speech and the activities need to be practised each day and properly. What is the benefit of coming once a week?” (A. Clark, personal communication, December 4, 1998). The speech pathologist also revealed that there was a long list of children waiting for their first block of speech therapy so that it was important not to waste her time with people who did not support the intervention program.

Mrs Velkovski was most upset when Mara was dropped from the speech program (Velkovski, 1998). Despite being informed of the reasons for such action Mara’s mother seemed confused. At the first parent interview Mrs Velkovski questioned if her daughter could have the speech lessons one more time (Velkovski, 1998). When Mrs Velkovski was told that this was not possible she commented, “Maybe she not happy for Mara to come back anymore. It doesn’t matter anyway” (Velkovski, 1998, p.20). During itinerant hearing sessions activities from the second speech program were completed.
5.4.5.3 Analysis of Physical/Interactional Performance

At school Mara satisfactorily participated in class and group activities with appropriate seating, audiological assistance and specialised auditory training (Velokovski Collaborative Team Scale, 1998-2000). Although Mara’s hearing loss was not obvious in quiet, one-to-one situations she experienced difficulty in group and noisy classroom situations (Velkovski Australian Hearing Services Report, 1994). Since her enrolment in Kindergarten, communication with her peers and her teachers has been a problem in Mara’s inclusive education (e.g., she spoke quietly and quickly and mispronounced many of her words) (Velkovski Itinerant Support Teacher Hearing Report, 1995-2000).

Difficulties in Mara’s inclusive education resulted from the inconsistent use of her hearing aids and lack of support from her family (e.g., speech therapy sessions). Because of her mother’s negative attitude towards her use of hearing technology, Mara was only allowed to wear her hearing aids in the classroom at school. Despite Mara’s initial acceptance of her hearing aids, by Year 5 she had become self-conscious about wearing them at school. In her second last year of primary school, she often misplaced her hearing aids or left them at home and her long, greasy and unbrushed hair now covered the visual sign of her hearing disability.

In Mara’s inclusive education at Summerton Public School there were rare occasions when she used hearing technology to her advantage. She would always wear her hearing aids for class spelling tests and listening activities. Her hearing aids were also the reason for many of her absences from school. For a half hour appointment at the hearing centre Mara was absent from school for the whole day.
5.4.6 Variable Four (The School Environment)

In the examination of Mara’s inclusive placement knowledge of the school environment is necessary. The school environment included the design and location of Mara’s classroom and the participants who were involved in her inclusive education.

5.4.6.1 The Classroom

Noise and reverberation was not a problem in Mara’s inclusive education because of the location and design of her classrooms at Summerton Public School. First, the school office and communal areas such as the school Assembly Hall and Library were located in separate buildings away from the general classrooms at Summerton Public School. Second, with the exception of when she was in Year 3, Mara’s classroom was always located in a full brick building. In Year 3 her classroom was located in a weatherboard building which was in close proximity of a busy, main road. Third, all classrooms at Summerton Public School had carpet on the floor, with the exception of the wet area in the room. The carpet absorbed a high percentage of internal noises in the classroom (e.g., the movement of students to and from their desks). Noise, outside the classroom was only a problem when students worked unsupervised in the hallway.

5.4.6.2 The School Community

The school environment also involved members of the school community. School personnel and Mara’s peers played a crucial role in her education at Summerton Public School (Velkovski Review Meeting, 1995-2000). The school principal, the school counsellor, the first school nurse, the class teacher and the Itinerant Support Teacher Hearing were all directly involved in Mara’s education at Summerton Public School.
Since the diagnosis of Mara’s hearing impairment in Kindergarten, Mrs Wallace the
school principal has supported Mara’s special needs at Summerton Public School. Mrs Wallace
was always appreciative of current knowledge of her young student with a hearing impairment.
If the school principal was unable to attend Mara’s Review Meeting she insisted on being
personally updated on findings and recommendations from the meeting. When the school
principal interacted with parents and family members on special school occasions such as the
school Multicultural Day, Mrs Wallace would always find time to have an informal talk with
Mrs Velkovski. These conversations made Mrs Velkovski feel important and promoted a
positive relationship between Summerton Public School and Mara’s mother (Velkovski, 1998).
The principal also encouraged members of staff to work together and to have a positive attitude
towards Mara’s inclusive placement. In Mara’s inclusive education the attitude and approach of
school personnel was critical, given the negative attitude and lack of support from her family
(especially her mother). Finally, Mrs Wallace was always available to discuss her student’s
special needs.

The school counsellor had a caring and positive attitude towards Mara’s inclusive
placement (Velkovski Collaborative Team Scale, 1998-2000). As a member of Mara’s Learning
Support Team the school counsellor regularly liaised with Mara’s teachers, completed necessary
paperwork related to Mara’s inclusive placement and participated at Mara’s annual Review
Meeting. At the Review Meeting the school counsellor discussed Mara’s educational and
medical needs for support in the classroom. Despite Mrs Velkovski’s negative attitude towards
her daughter’s hearing disability, the school counsellor was always compassionate and
professional in her approach.
The Year 4 teacher was interested in learning about Mara's special hearing needs and was grateful for Itinerant Support Hearing assistance. During the year, Mara's itinerant support involved individual or small group withdrawal activities. Mara's teacher, who had little experience teaching primary school children and no experience teaching students with a hearing impairment, felt comfortable with this arrangement.

The Year 5 teacher, who was yet to receive a permanent teaching position, also had no experience teaching hearing-impaired students. Consequently, the teacher valued assistance from a specialist hearing teacher. In Year 5 the class teacher designed a health program which focused on good hygiene and grooming habits for all students in the class, including Mara. In addition, the Year 5 teacher inspired all students in the class to perform to their academic potential. Mara often repeated expressions used by her class teacher (e.g., your brain is not there for decoration, use it and think) (Velkovski Researcher Diary, 1999).

During a Year 5 reading group session an experienced teacher on the grade commented, "Isn't it good she's (Mara) prepared to have a go and answer questions. She tries so hard, considering she has a hearing impairment" (Velkovski Researcher Diary, 1999, p.14). These statements were made on the teacher's general understanding of students with a hearing impairment and not on identified student learning outcomes (from the teacher's program or from Mara's Individual Education Program).

The first school nurse in this study was a kind and understanding person who was supportive of Mara's special needs (e.g., the school nurse made numerous phone calls to Mara's doctors and to her audiologist at Australian Hearing Services). The school nurse also accompanied Mrs Velkovski and Mara to the Ear, Nose and Throat specialist and to Australian Hearing Services. The nurse commented, "I wanted to make sure he recognised the sensorineural
component of her hearing loss. He (the ENT) is always quick to act (operate) and I thought Mara’s case should be adequately presented” (Best, 1998, p.3). The school nurse thought her presence was also necessary when the audiologist at Australian Hearing Services explained the implications of Mara’s hearing loss to her mother.

The second school nurse was involved in the latter stages of this study. The second school nurse had an abrupt and aggressive nature and at times was unprofessional in her approach. Mara’s mother was angry when the nurse wanted to discuss her daughter’s hearing disability at the hospital where she worked. Mrs Velkovski commented, “I say to her when I am at lunch I’m with a lot of Macedonian people and I don’t want to talk about Mara” (Velkovski, 1998, p.16). The school nurse also confused the focus of Mara’s needs for support at school. In Year 3 attention was focused on Mara’s vision rather than hearing concerns.

After the diagnosis of her hearing impairment in Kindergarten, Mara was placed on Itinerant Teacher Hearing caseload. Until her transition to secondary school, Mara received two sessions of itinerant support each week at school. In Mara’s ISTH sessions a variety of teaching strategies were employed. These strategies included team-teaching, small group and withdrawal sessions. After a mathematics lesson one of Mara’s Year 5 peers commented, “It’s great Mrs Carter that Mara doesn’t mind sharing you with us!” (Velkovski Researcher Diary, 1999, p.17). During itinerant reading group sessions students developed strategies which assisted Mara’s participation in activities. Everyone in the group agreed, if Mara read louder and a little slower, other members of the group would try to sit still and concentrate on the passage being read. After three weeks the group’s reading and interaction skills gradually improved. Without being reminded, members of the group knew when to help Mara with words and when to give her time to respond.
In withdrawal itinerant sessions auditory training, speech and vocabulary work related to the class program was completed. Often in withdrawal sessions, speech and listening activities were replaced with reading and language activities because Mara was heavily congested with a cold. Sometimes with little notice, the approach used in itinerant sessions changed as a result of changes in the class and school timetable. Awareness of changes to school routine was an important aspect of Mara’s itinerant support.

5.4.6.3 Support Strategies in the School Environment

From Kindergarten till Year 6 a Learning Support Team supported Mara’s education at Summerton Public School. Members of the support team were the school principal, the school counsellor, the class teacher, the Itinerant Teacher Hearing and her mother. At the annual Review Meeting, members of the Learning Support Team discussed Mara’s special needs for support. Following recommendations from her 1997 Review Meeting, assistance from the speech pathologist at the local Community Health Centre was requested. Mara was allocated two blocks of speech therapy. After the 1998 Review Meeting, changes in Mara’s amplification needs at school were discussed with the paediatric audiologist at Australian Hearing Services. Mara was subsequently fitted with digital hearing aids.

Each year at Summerton Public School, the Itinerant Teacher Hearing in-serviced Mara’s teachers on the implications of her hearing loss. Strategies which supported Mara’s special hearing needs were also discussed at this meeting (e.g., her use of hearing technology and the importance of preferential seating in the classroom).

In her upper primary classes at Summerton Public School teachers designed class programs which focused on Mara’s personal needs (i.e., her hygiene and grooming). When Mara was in Year 5 the class teacher and itinerant hearing teacher developed a social interaction
program and a personal hygiene program. These programs focused on formal and informal conversational skills and eating healthy food and personal grooming habits. In Year 6 the class teacher and Itinerant Teacher Hearing designed an interpersonal friendship program, which was part of a transition to high school program.

5.4.6.4 Collaboration Between Medical and Educational Personnel

Since the diagnosis of her hearing loss, a close relationship has existed between educational personnel and the paediatric audiologist at Australian Hearing Services. After Mara’s hearing was reviewed at Australian Hearing Services her Itinerant Support Teacher Hearing received a copy of her audiological report. At the end of each year Mara’s Itinerant Hearing Teacher provided the paediatric audiologist with a report on Mara’s use of hearing technology and auditory skills at school.

When Mara was in Year 4 a close working relationship developed between her speech therapist and her Itinerant Hearing Teacher. Together the speech therapist and itinerant teacher devised, implemented and monitored a speech program which supported Mara’s talking and interactional needs at school. With insufficient support from Mara and her mother, the program and relationship between the therapist and itinerant teacher came to an abrupt end.

5.4.6.5 A Time Not to Collaborate With Medical Personnel

Inclusion is a deliberate process and should only be implemented if it can be done well (Brownley, 1987; Liu, 1995; O’Neil, 1995). Parental perceptions of support services for their child influence the success of the inclusive placement (Westwood, 1994). In this case study Mara’s mother indicated that she wanted no further contact with the second school nurse. Mrs Velkovski (1999) found the school nurse confusing, abrupt and insensitive to her cultural needs.
Members of the Learning Support Team agreed not to involve the school nurse any further in Mara’s inclusive education.

5.4.6.6 Analysis of the School Environment

Observations made in this study revealed that the location and the design of the classroom had minimal impact on Mara’s inclusive education. Noise and reverberation was not a problem in her learning at Summerton Public School. Difficulties which occurred in her inclusive education were overcome with the use of appropriate intervention strategies (e.g., adult supervision of students who worked in the hallway outside Mara’s classroom).

Data from this study showed that all members of the school community, except the second school nurse, had a positive and supportive attitude towards Mara’s inclusive placement. A caring and well-informed staff was a vital component of Mara’s inclusive education. In supporting Mara’s inclusive education it was important for school personnel to be sensitive to her special hearing needs (e.g., her use of hearing technology) and to the needs of her family (e.g., the embarrassment caused by Mara’s hearing aids).

Support from the school principal was an essential element of Mara’s inclusive education at Summerton Public School. The principal quietly acknowledged and addressed the needs of her young student with a hearing impairment (and the needs of her student’s mother). The school principal also inspired and supported Mara’s teachers. In responding to Mara’s special needs the principal provided advice for Mara’s experienced and inexperienced teachers, encouraged school personnel to search for alternatives and remained optimistic towards Mara’s inclusive placement.

Support from specialist personnel was a vital aspect of Mara’s education at Summerton Public School. Data collected in this study revealed that Mara’s teachers and class peers appreciated assistance from her Itinerant Hearing Teacher. With limited teaching experience and
knowledge of hearing impairment, Mara’s teachers valued support from a specialist teacher. In a class of almost thirty students, Mara’s peers appreciated greater individual teacher assistance. This appreciation had positive implications for Mara’s learning at school (see Figure 11).

Figure 11. Implications of in-class itinerant support for Mara and her peers.

5.4.7 Variable Five (Parent and Family Support)

Mrs Velkovski had difficulty accepting her daughter’s hearing loss and use of hearing technology. Despite her own hearing loss, Mrs Velkovski believed that she had managed at school without using hearing aids and therefore so would her daughter (Velkovski, 1998).

5.4.7.1 Interaction Between Mara’s Mother and School Personnel

After conversations with the school counsellor and the Itinerant Hearing Teacher, Mrs Velkovski gave permission for her daughter to wear her hearing aids at school. Every twelve months (or as required) Mrs Velkovski, or one of Mara’s older siblings, accompanied the young student with a hearing impairment for her appointments at Australian Hearing Services. After recommendations from the 1997 and 1998 Review Meetings Mrs Velkovski gave permission for her daughter to have speech therapy at the local Community Health Centre.
5.4.7.2 Parent and Family Support Strategies

Each year Mrs Velkovski attended Mara’s annual Review Meeting at Summerton Public School. A Macedonian interpreter attended the first three meetings to help Mrs Velkovski understand and participate in discussions about her daughter’s education. At the 1999 Review Meeting Mrs Velkovski shared her concerns about Mara’s chronic health problems with other members of the Learning Support Team (Velkovski *Collaborative Team Scale*, 1999). Mara’s mother commented, “But the cold it won’t go. She have it for over two months” (Velkovski Review Meeting, 1999, p.8). The school integration representative who was also Mara’s Year 1 teacher commented, “Those colds have gone on for years. It’s amazing that it has taken mum till Year 6 before she did something!” (Velkovski Researcher Diary, 2000, p.19). After years of denying her daughter’s poor health Mrs Velkovski reluctantly gave permission for the removal of Mara’s adenoids and tonsils in April 2000.

5.4.7.3 Analysis of Parent and Family Support

Parental attitudes and support influenced Mara’s education at Summerton Public School. Mrs Velkovski believed her daughter’s hearing disability and use of hearing technology brought shame to her family. Consequently, Mrs Velkovski felt uncomfortable discussing her daughter’s hearing disability in public and was embarrassed when her daughter wore her hearing aids at school. Although Mrs Velkovski was concerned about Mara’s visual appearance she was not concerned about her daughter’s lack of attention to personal hygiene and grooming.

As a result of Mrs Velkovski’s family and work commitments, Mara’s older sister and brother Violetta and Alex Velkovski often accompanied Mara to her medical appointments. This practice often delayed changes in Mara’s use of hearing technology and led to the cancellation of her speech therapy. When the paediatric audiologist at Australian Hearing Services wanted to fit
Mara with new digital hearing aids, her mother’s presence was essential. Similarly, for Mara to take full advantage of her speech therapy, her mother’s presence at sessions was also necessary. Finally, because of Mrs Velkovski’s busy lifestyle Mara received little assistance with her homework and had few opportunities to socialise and interact with her peers outside of school. Mrs Velkovski’s inability to attend to her daughter’s personal and special needs had a detrimental effect on Mara’s academic, social and physical performance at school.

5.5 Understandings from this Case Study

5.5.1 Inclusion is About Understanding People

According to her teachers Mara is a friendly, well-mannered and co-operative student who enjoys participating in class discussions and activities (Velkovski School Report, 1995-1997). Her teachers have also commented that she is a consistent and conscientious worker in all subject areas (Velkovski School Report, 1998-1999). Data gathered during this study revealed these comments were not an accurate reflection of Mara’s academic, social and personal performance at school.

At school Mara freely participated in class and group learning activities when she felt confident with the subject (e.g., mathematics) (Velkovski Student Diary, 1998). In contrast to this positive outlook, this study also showed that Mara rarely or reluctantly participated in class activities which relied on her linguistic skills and general knowledge (e.g., reading and comprehension activities) (Velkovski Researcher Diary, 1998-1999). In class reading sessions Mara quietly sat at the back or side of the group and rarely contributed to the lesson. Mara’s abstinence from class activities usually went unnoticed as the teacher’s attention was often directed to vocal students who behaved badly. The tendency for students with a hearing impairment to go unnoticed in class was noted by Konza et al. (1987).
Although Mara’s inappropriate behaviour often went unnoticed by her teachers, data from this study revealed that she could be manipulative, rude and act without conscience. Mara often spoke in Macedonian when she did not want people to understand her conversation. Because no-one had complained or discussed Mara’s manipulative behaviour she assumed her behaviour was acceptable.

In all of her school reports Mara’s teachers have commented on her quiet personality (Velkovski School Report, 1994-2000). Findings from this case study showed that Mara experienced a range of feelings and behaviours over the last three years. During this period there were times when Mara felt extraordinarily good at school, times when she showed maturity beyond her chronological years, times when she felt anxious about her education and times when she felt angry and alone (Velkovski Researcher Diary, 1998-1999; Velkovski Student Diary, 1998-1999).

Mrs Velkovski, who had great difficulty accepting and supporting her youngest daughter’s hearing disability, never discussed Mara’s use of hearing technology with the paternal grandparents who lived in the same house as Mara and herself (Velkovski, 1998-1999). In Mrs Velkovski’s life, the adoption of cultural values took precedence over the needs of her children. The first school nurse commented, “Although worried about her daughter she could not believe something was wrong with her young child” (Velkovski School Medical Report, 1994, p.1).

Because of Mrs Velkovski’s reluctance to accept her daughter’s hearing disability she was often confused about Mara’s talking and listening skills. Initially, Mrs Velkovski blamed Mara’s poor speech on her daughter’s limited knowledge of English. Mara’s mother commented to the school nurse, “She does not speak a lot of English, she will get better with practice, her Macedonian is fine” (Velkovski School Medical Report, 1994, p.1). The Macedonian
Community Language Teacher at Summerton Public School revealed that Mara’s Macedonian was poor (Velkovski School Report, 1995). During the first parent interview (1998) Mara’s mother noted that she had no problems understanding her daughter’s speech. A few weeks after the interview Mrs Velkovski informed participants at the 1998 annual Review Meeting that she found her daughter’s speech, “Difficult to understand because at home she always speak so fast and low (soft)” (p.2). Mrs Velkovski was also confused about her daughter’s hearing. She believed Mara’s hearing was ‘fine’ yet she knew her daughter had problems hearing in places where there was a constant background noise (e.g., at parties and at weddings).

Results from this case study disclosed that Mrs Velkovski did not have a good understanding of the ramifications of Mara’s hearing loss. First, Mrs Velkovski did not understand about the long term implications of her daughter’s hearing loss. Mara’s mother hoped that her daughter’s hearing loss would go away. In the first parent interview Mrs Velkovski commented, “Oh dear, forever” (Velkovski, 1998, p.14) Second, Mrs Velkovski had great difficulty understanding how hearing aids would help her daughter at school. During the second parent interview Mara’s mother remarked, “In a class like that maybe she can’t hear with the hearing aids?” (Velkovski, 1999, p.4). Third, Mrs Velkovski thought only personnel from Australian Hearing Services knew about her daughter’s hearing loss. Until the role of Mara’s Itinerant Support Teacher Hearing was explained to Mrs Velkovski, Mara’s mother had no idea that personnel from Australian Hearing Services liaised with her daughter’s teachers at Summerton Public School. Finally, Mrs Velkovski always had ongoing concerns and questions. When Mara was fitted with her new digital hearing aids Mrs Velkovski questioned, “I don’t know why they changed them for, she said they change it on the computer or something” (Velkovski, 1999, p. 2). This issue was subsequently addressed at the parent interview. As a
result of her limited command of English, Mrs Velkovski was grateful when her daughter's teachers (i.e., the itinerant teacher/researcher in this study) liaised with Mara's doctors. Mara's mother queried in the second parent interview, "Maybe they tell you something that I don't understand?" (Velkovski, 1999, p.2).

5.5.2 It's About Working Together

Collaboration among school personnel was a crucial aspect of Mara's successful inclusive education. The thought of addressing Mara's physical and emotional needs was a challenge for most of her teachers. The Year 5 teacher was relieved when other school personnel had similar thoughts about Mara's personal hygiene. The teacher remarked, "That's great I thought it was just me!" (Velkovski Researcher Diary, p.12, 1999).

Each year at Summerton Public School members of the Learning Support Team supported Mara and her class teacher. Members of the team included the school principal, the school counsellor, the Itinerant Support Teacher Hearing and Mrs Velkovski. The school principal brought experience to the team and ensured the appropriate allocation of resources. In Mara's inclusive education the school principal was an advocate for her student's special needs and was a mentor for her student's teachers (who were often stressed by Mrs Velkovski's negative attitude towards her child's hearing impairment). Members of the administrative staff also supported Mara's inclusive education at Summerton Public School. Administrative staff photocopied reports and assisted with fax transmissions between Mara's teachers and doctors. At Summerton Public School the grade supervisor was an additional advocate in Mara's inclusive education. The supervisor actively supported class programs which focused on Mara's special needs. With a lack of commitment from Mara's family, support from the school community was a crucial aspect of Mara's education.
In Mara's successful education at Summerton Public School it was important for her teachers to work together as a team, where everyone was treated the same and all viewpoints were respected. Zollers et al. (1999) reported that teamwork and collaboration among school personnel were important characteristics of the inclusive school community. At the beginning of each year the itinerant teacher was often regarded as the expert in the team because of her specialist knowledge of students with a hearing impairment. This was an unrealistic expectation as there were many times when the itinerant teacher did not have the answers to particular concerns (e.g., the need for Mara to take greater personal responsibility in her inclusive education). With knowledge of hearing impairment and an awareness of appropriate teaching strategies teachers at Summerton Public School took greater responsibility and played a greater role in Mara's education. When working together as a team it was important that Mrs Velkovski understood the role of participants who supported her daughter’s education (including educational and medical personnel). It was also necessary for Mara’s mother to understand that the actions of participants in her daughter’s inclusive education could not be guaranteed (e.g., the second school nurse).

5.5.3 The Need to be Informed

Although the need to be informed of Mara’s current special needs was constantly raised at her Hearing Review Meetings, there had been no communication between her teachers and doctors until this study commenced. As Mrs Velkovski struggled to accept Mara’s hearing loss it seemed to her that two different organisations supported her daughter’s education. In the first group there were personnel at Summerton Public School and the paediatric audiologist at Australian Hearing Services and in the second group there were her local doctor and her two Ear, Nose and Throat specialists.
After the 1998 and 1999 Review Meetings Mrs Velkovski gave permission for school personnel to receive copies of Mara’s medical reports from her local doctor and from her Ear, Nose and Throat specialists. These reports provided invaluable knowledge about the young student with a hearing impairment and about her mother. First, the reports revealed Mara’s history of chronic health problems (e.g., her numerous colds, infected ears and breathing problems). Knowledge of Mara’s chronic health problems would have been useful in her earlier education at Summerton Public School. Second, these reports showed that Mrs Velkovski was anxious and concerned about her daughter’s constant poor health (e.g., Mara had numerous allergy tests and she consulted two Ear, Nose and Throat specialists). Third, these reports disclosed Mrs Velkovski’s inability to accept her daughter’s hearing loss. Although there was a history of hearing loss in Mara’s family and even though Mrs Velkovski was aware that her daughter had difficulty listening in noisy situations, she did not believe or trust the reports from the school nurse and the paediatric audiologist at Australian Hearing Services. In order for Mrs Velkovski to accept the diagnosis of her daughter’s hearing loss, she sought the opinion of two Ear, Nose and Throat specialists. Finally, these reports demonstrated that Mrs Velkovski did not trust medical advice from her local doctor and from the Ear, Nose and Throat specialist. Prior to the removal of Mara’s adenoids and tonsils Mrs Velkovski sought the opinion of another Ear, Nose and Throat specialist.

Awareness of Mrs Velkovski’s beliefs, current information about Mara’s health status and the need for school and medical personnel to work closely together were important aspects of Mara’s education at Summerton Public School. It was difficult to provide Mara with effective and appropriate support because of Mrs Velkovski’s negative attitude towards her daughter’s
hearing loss. Without the use of hearing technology and without specialised assistance Mara had difficulty participating in class conversations and interacting with her peers.

5.6 Implications and Recommendations from the Study

5.6.1 Implications for Mara

On her progression to high school Mara will need to take greater responsibility for her learning and for her personal hygiene. At school Mara needs to ask questions when she is unsure of the task or language used and she needs to remember to sit towards the front of the room or group. With Mara’s reluctance to use hearing technology these strategies are crucial in her learning. At home, because of her mother’s busy lifestyle Mara needs to take greater responsibility for her learning and personal hygiene (e.g., the completion of homework, attention to cleanliness and grooming).

5.6.2 Implications of Mara’s Cultural Background

Awareness of Mara’s non-English speaking background was important when supporting her inclusive education at Summerton Public School. Although Mr and Mrs Velkovski have been in Australia for over 25 years, Mara’s father spoke little English and her mother only had a basic command of English. At Mara’s annual Review Meetings Mrs Velkovski’s limited command of English was taken into consideration. Strategies which helped Mrs Velkovski’s understanding at meetings were the use of an interpreter, the avoidance of technical terms and the monitoring of Mrs Velkovski’s understanding throughout the meeting. The school counsellor would regularly ask Mrs Velkovski “Do you know what I mean?” (Velkovski Review Meeting, 1994-2000).

It was also important for teachers to be aware of Mrs Velkovski’s cultural beliefs. Because of her cultural beliefs Mrs Velkovski was embarrassed and ashamed when her daughter used hearing technology at school. When medical and educational intervention strategies were
discussed and employed in Mara’s education, Mrs Velkovski’s personal feelings and beliefs were taken into consideration (e.g., Mara only wore her hearing aids inside the classroom). Numerous efforts were made by school personnel to find a compromise between Mara’s educational needs for support and her mother’s personal beliefs. As was her parental right, Mrs Velkovski always made the final decision in her daughter’s education at Summerton Public School.

5.6.3 Implications for School Personnel

In the examination of Mara’s inclusive placement this study identified areas of need for her teachers. When confronted by the many challenges in Mara’s inclusive education, knowledge of government policy on inclusive education and a school policy on inclusion would have been helpful for her teachers at Summerton Public School. Similarly, when discussing emotional issues attached to Mara’s hearing disability, consultative and collaborative training would have been useful for her teachers. When supporting a student with special hearing needs knowledge of hearing impairment and training in special education would have been advantageous for her teachers.

5.6.4 Implications for School Practice

Accuracy when reporting on student progress at school is important for all students (NSW Department of School Education, 1996a). Most of Mara’s school reports provided little knowledge of her academic, social and physical progress at school. Her reports focused on her behaviour (e.g., Mara is a quiet, co-operative, steady, well-mannered student) and the general standard of her work (e.g., she has made good progress in mathematics, her understanding of reading concepts was developing and her handwriting needs to improve). When reporting on student progress at school, a discussion based on the achievement of identified outcomes and
skills is required. Syllabus outcomes (i.e., statements of knowledge, skills and understandings) are provided in NSW syllabuses (NSW Department of Education and Training, 2000b; NSW Department of School Education, 1996a).

In summary, addressing Mara's needs at school was difficult because of her family's cultural beliefs, her teacher's limited knowledge of hearing impairment and government policy on inclusion and the use of inefficient teaching strategies (e.g., Velkovski School Reports). These difficulties can be minimised or eliminated with appropriate knowledge, training and school documentation (i.e., a school policy on inclusion).
CHAPTER SIX

6.0 Case Study Three

6.0.1 Introduction

The student in the third case study is Fatima Salem. Pseudonyms are used for all participants and place names in this case study. From 1993 till September 1998 Fatima was enrolled in the Hearing Unit attached to Rockville Public School. In Term Four 1998 Fatima transferred to Summerton Public School (i.e., her local primary school). This study explored Fatima’s personal history and her inclusive education at Summerton Public School from Year 2 until the end of Year 4. All variables which influenced her education were examined in this study. Areas of weakness identified in this study were included in Fatima’s Year 5 and Year 6 Individual Education Program.

6.1 Background Data for this Case Study

Background information on autosomal recessive (genetic deafness loss) and the early education of students with a hearing loss in NSW is provided in this case study.

6.1.1 Autosomal Recessive (Genetic) Deafness

Marlowe (1999) reported, “Hearing impairment is the single most common condition affecting our nation’s newborn” (p.7). Heredity (i.e., genetic factors) is a major cause for hearing loss (Banke, 2000). Approximately 80% of genetic hearing loss cases are inherited in an autosomal recessive manner and for about 70% of genetic hearing loss cases deafness is the only symptom (Banke, 2000). “A person with an autosomal hearing loss has two recessive genes for hearing loss in that particular pair of genes. A person with a normal hearing gene and a hearing loss gene would be considered a carrier” (edtech.morehouse.edu, 2000). A carrier is unaware of his or her hearing loss gene until they have a child with a hearing loss (eparent.com, 2000).
There is a one in four chance that a child with two carrier parents will receive both hearing loss genes and will subsequently have a hearing loss (Figure 12). DNA analysis can be used to screen individuals who are at risk of being deafness hereditary carriers (Banke, 2000).

Figure 12. The relationship between the dominant hearing gene and the recessive deafness gene in the inheritance of deafness (Mutton, 1990).

6.1.2 The Early Education and Monitoring of Students with a Hearing Loss in NSW

Deafness creates barriers in language and communication (Simser, 2000). “The period of development from birth to three years is a critical period for the development of normal speech and language” (e.parent.com, 2000, p.1). It is therefore important to initiate intervention strategies as soon as possible (Mencher & Mencher, 1993). Because most parents of children
with a hearing impairment have little knowledge or experience of hearing loss it is important to provide family centred assistance (Lederberg & Mobley, 1990).

Following the diagnosis of a child’s hearing loss a representative from the NSW Department of Education and Training (i.e., the Assistant Principal Hearing for the district), meets with the child’s parents. At this meeting the Assistant Principal Hearing discusses educational options or strategies which are appropriate for their child with a hearing impairment. Recommendations made by the Assistant Principal Hearing are based on information from the paediatric audiologists at Australian Hearing Services, from discussions with the parents and from the results of their personal assessments. During all discussions with parents, it is essential that educational and medical personnel are non-judgemental. In this study the Assistant Principal Hearing commented, “I don’t delve too deeply unless the parents want to talk about it. I don’t think it is my business. I’m only dealing with the child who is in front of me at the present. I don’t say you should have done something about it two years ago because that won’t solve anything. That would only upset the mother more because she was feeling guilty” (Harvey, 2000, p.2). Sensitivity to the parent’s needs is also important during this emotional time. The Assistant Principal Hearing further commented, “I never overburden the parents with too much detail. I really don’t” (Harvey, 2000, p.4).

When a child with a hearing loss is considered at risk of not developing language and communication the Assistant Principal Hearing will recommend a range of educational intervention strategies for the young child. These intervention strategies include both government and non-government services. When a young child with a significant hearing loss is considered at risk, placement in a Hearing Support pre-school class is recommended (NSW Department of Education and Training, 1999c). Additional considerations for placement in the pre-school class
are the child’s age and the child’s independent life skills (he or she must be toilet trained). Parents are encouraged to visit the specialist hearing class before making decisions on their child’s educational placement. When the parents accept the placement, personnel at the school complete the necessary administrative paperwork (e.g., application for taxi service for the student). During the first term in the pre-school class the child might follow a transitional program (i.e., initially attend two days and then increase this to five days by the end of term) (Harvey, 2000).

Whilst enrolled at the Hearing Unit, school personnel and the child’s parents review the child’s educational placement at the Annual Review of Hearing Placement. When the child is five years old participants at the Review Meeting discuss the child’s continued placement in the Hearing Unit or the possibility of the child’s enrolment in a regular kindergarten class. This decision is based on the child’s academic, social and personal performance. Although the student may remain in a Hearing Unit, sometimes the student is integrated into regular classes at the school. In the regular classroom the student with a hearing impairment is assessed in the same manner as his or her hearing peers (Thorley et al., 1995; Tindle, 2000).

When enrolled on a full time basis in the regular class, the student with a hearing impairment receives specialised assistance from an Itinerant Support Teacher Hearing (NSW Department of Education and Training, 1998b). Each year, members of the student’s Learning Support Team review the student’s educational placement (i.e., needs for support) (Jones & Swain, 1999).

In summary, early and appropriate intervention is essential in the education of students with a hearing impairment (Calderon et al., 1998). Because of the unique needs of students with a hearing impairment, the NSW Department of Education and Training offers a range of
educational placements (NSW Department of Education and Training, 1999c). Placement decisions are based on the student’s linguistic, academic and social needs (Allen, 1992). Educational management based on the student’s needs is regarded as good educational practice (Burnip, 1993).

6.2 Fatima’s Case History

6.2.1 Family Background

Mr and Mrs Salem have two children, Fatima who is ten years old and Zeinab who is six months old. Fatima has a severe hearing loss and Zeinab has normal hearing. Mr and Mrs Salem are first cousins (Figure 13). Despite the fact that there was no history of hearing loss in the Salem family, a report from the Deafness Centre at the NSW Children’s Hospital revealed that Fatima’s hearing loss was autosomal recessive (genetic) in origin (i.e., her parents each had a recessive deafness gene) (Salem Deafness Centre Report, 1994).

Gr. Grandmother & Gr. Grandfather (1)  Gr. Grandmother & Gr. Grandfather (2)
  Daughter (1)  Daughter (2)
    (Grandmother)  (Grandmother)
  Mr Salem  Mrs Salem
    (Father)  (Mother)

Fatima Zeinab

Figure 13. Four generations of the Salem Family Tree.
Mr and Mrs Salem migrated to Australia when they were young children because of the unsettled conditions in the Middle East. Mr Salem remarked, "Because of the war we came to Australia. It was no good for education" (Salem, 2000, p.3). According to Mr Salem his wife was the clever one. Whereas Fatima’s mother completed her secondary education to Year Twelve, Mr Salem only went to Year Ten and ‘had forgotten most of what he had learnt at school’ (Salem, 2000).

6.2.2 Fatima’s Personal Background

Mrs Salem had a normal pregnancy with Fatima (Salem, 1999). When her daughter was one month old Mrs Salem noted, “Her young baby used to scream all night. In the high voice not crying just ahh all the time. She was happy not crying just giving this voice” (Salem, 1999, p.7). The nursing sister at the local Baby Health Centre advised Mrs Salem that her daughter’s actions were normal and that she had nothing to worry about (Salem, 1999).

When Fatima was six months old her mother consulted an Ear, Nose and Throat specialist because of her daughter’s numerous ear infections (Salem, 1999). The ENT specialist who inserted grommets in Fatima’s ears, did not check Fatima’s hearing. Six months after the grommets were inserted into Fatima’s ears Mrs Salem returned to the ENT specialist as she was concerned about her daughter. The ENT specialist told Mrs Salem that there was nothing to worry about because the grommets were still in Fatima’s ears (Salem, 1999). Upset by the specialist’s advice and attitude Mrs Salem consulted another Ear, Nose and Throat specialist. The second specialist, who was a paediatric Ear, Nose and Throat specialist immediately removed the grommets from Fatima’s ears. After the grommets were removed Mrs Salem reported that Fatima had few if any more ear infections (Salem, 1999).
Although the problems with Fatima’s ear infections had been resolved, Mrs Salem still had concerns about her daughter’s hearing. Mrs Salem stated, “She used to stand in her cot and I’d call to her two times to answer me when she is turning her back. Nothing, I kept telling the doctors I don’t know!” (Salem, 1999, p.7). In the second parent interview Fatima’s father stated, “Sometimes we would have to scream to get her to understand” (Salem, 2000, p.1).

When Fatima was fourteen months her mother became anxious about her daughter’s inability to talk and communicate. During the first parent interview Fatima’s mother remarked, “You know that babies goo and gah, she never done it! I kept taking her to the doctor and tell him she is not speaking. She’s not giving any signs like other babies. And he said don’t worry she will talk, she will talk” (Salem, 1999, p.7). Mrs Salem’s feelings were similar to those reported by Musselman and Churchill (1991) who found that parents often felt powerless in their attempts to get age appropriate responses from their child with a hearing impairment.

Concerned about her daughter’s poor talking and listening skills, Mrs Salem consulted the paediatrician at the local hospital when Fatima was two and half years old. Mace et al. (1991) found that suspicion of hearing loss in most instances preceded identification. After conducting a variety of tests the doctor diagnosed Fatima’s hearing loss. Meadow-Orlans (1998) reported that the average age of diagnosis for a hard-of-hearing child was 28.6 months years old. The doctor at the hospital subsequently referred Fatima to Australian Hearing Services. The paediatric audiologist at Australian Hearing Services confirmed that Fatima had a moderate-to-severe sensorineural hearing loss in both ears.

After the diagnosis of Fatima’s hearing loss in March 1993 Fatima went on an overseas holiday with her family. When they were in Switzerland Mr and Mrs Salem consulted another Ear, Nose and Throat specialist. Following advice from the specialist Fatima was fitted with
hearing aids. Results from her hearing tests indicated that Fatima gained significant benefit from her hearing aids (Salem Deafness Centre Report, 1994). On her return to Australia in June 1993 Fatima once again visited Australian Hearing Services.

In conjunction with personnel at Australian Hearing Services, an educational representative from the NSW Department of Education recommended Fatima’s immediate placement in a Hearing Unit (Salem Australian Hearing Services Report, 1993). The Assistant Principal Hearing recommended placement at an Oral Hearing Unit because Mr and Mrs Salem wanted Fatima ‘to talk just like them.’ During the second parent interview (2000) Mr Salem remarked, “The Hearing Centre sent us to Rockville. That is where children with a hearing loss go” (p.1). Fatima’s father also commented, “They just said she needed to start really early at school” (Salem, 2000, p.2).

In September 1993, at the age of three years Fatima enrolled in the pre-school class which was attached to the Hearing Unit at Rockville Public School. The NSW Department of Education and Training provided Fatima with taxi transport to and from her home because the Hearing Unit was located many kilometres from Fatima’s home. The teacher in the pre-school class who was an experienced teacher of students with a hearing impairment communicated with Mr and Mrs Salem via Fatima’s daily communication book. The four other students in the pre-school class were the only people Fatima knew who had a hearing impairment.

In the pre-school class Fatima completed structured activities from the Auditory Skills Program designed by Romanik (1990). This program developed her auditory detection, discrimination, memory and comprehension skills. Fatima, who did not have an Individual Education Program, completed individual vocabulary and linguistic activities in the pre-school class. As part of the pre-school program Mr Salem attended Fatima’s speech training sessions. In
order for students to generalise skills learnt in speech therapy sessions parental involvement is essential (Simser, 1999). Unfortunately, Fatima did not always take full advantage of her speech therapy sessions. Her pre-school teacher reported, “The father came up quite a lot of the time but Fatima would play up for him and wouldn’t talk. She was just playing games” (Tindle, 1999, p.3).

When Fatima was enrolled at the Hearing Unit she progressed from the pre-school class to Kindergarten, to Year 1 and then to Year 2. Due to the small number of students enrolled in the Hearing Unit, the primary class catered for children from Kindergarten to Year 6. Fatima’s teacher at the Hearing Unit stated, “The wide range of ages made it difficult” (Tindle, 1999, p.12). The teacher from the Hearing Unit also noted that Fatima sought friendships with her hearing peers, as the two other girls in the Hearing Unit were much older than Fatima. At Rockville Public School Fatima had the same small group of friends from Kindergarten till Year 2 (Salem 1st Student Interview, 1999). At times this group would take advantage of Fatima’s hearing loss (e.g., they would play on the fixed equipment at school even when it wasn’t their turn). Tindle declared, “Because not every teacher would put in the energy to throw her off (the equipment), so the group led by Fatima would get away with it” (Tindle, 1999, p.13).

In Year 1, Fatima was integrated in a regular class for mathematics without the support of a specialist integration aide. Her Year 1 teacher in the Hearing Unit reported, “She went out for mathematics because she was managing quite nicely in mathematics” (Tindle, 1999, p.2). When Fatima was integrated into the regular classroom she was assessed in the same manner as her class peers. This provided a realistic and accurate assessment of her academic performance. In Year 1 Fatima completed Verbal and Performance Tests with the specialist school counsellor (Salem Specialist Counsellor Report, 1997). The counsellor reported that Fatima was
significantly below average in the Verbal Test and average in the Performance Test. The counsellor further noted that Fatima’s average score in the Performance Test was reflected in her class work (e.g., her level of understanding of mathematics concepts and when reading simple stories).

When Fatima was in Year 2 she was integrated into the regular class for mathematics and reading. According to her teacher at the Hearing Unit Fatima’s results indicated that “She was managing OK. She was performing just below the class average” (Tindle, 1999, p.7). At the annual Review Meeting in July 1998 the specialist counsellor recommended Fatima’s enrolment in a regular class. Mr Salem and the school principal, who attended the meeting supported the recommendation made by the specialist counsellor. On Fatima’s report the specialist counsellor wrote, “Fatima is making pleasing progress in her basic skill development. Her decoding skills are at an age appropriate level. Her limited vocabulary affects her comprehension. She is quite an independent worker, able to handle changes to routine and integration” (Salem Specialist Counsellor Report, 1998). With great haste Fatima enrolled at Summerton Public School in Term 4, 1998. The teacher at Rockville Hearing Unit reported, “There was no real closure. You are just told that she has gone” (Tindle, 1999, p.2).

Mr and Mrs Salem regarded Fatima’s enrolment at Summerton Public School as the beginning of a normal life for their daughter (Salem, 1999). The teacher at the Hearing Unit commented, “Now that she is in the mainstream, she’s fixed. I’m quite sure they believe this” (Tindle, 1999, p.4). Because of her use of hearing technology Fatima felt different from her peers in the regular class setting. Her mother remarked, “She felt she was different. And she’s a bit shy and ashamed to wear it (her FM)” (Salem, 1999, p.4). At the end-of-term games session when Fatima saw another student wearing hearing aids she remarked, “She’s got them too!” (Salem
Researcher Diary, 1998, p.1). It was important for Fatima to meet the two other students with a hearing impairment who were enrolled at Summerton Public School.

Prior to Fatima’s Review Meeting in 2000 Mr Salem asked his daughter if she would like to return to Rockville Public School. Fatima replied to her father, “No way, Summerton is my school!” (Salem Review Meeting, 2000, p.1). Mr and Mrs Salem were pleased that Fatima was happy at Summerton Public School (Salem Review Meeting, 2000). Mrs Salem was also pleased that her daughter had the opportunity to learn Arabic at her new school (Salem, 1999).

The suspicion and eventual diagnosis of Fatima’s hearing loss followed a similar pathway as other children who had a significant hearing loss. When Fatima developed appropriate language and communication skills at the Hearing Unit she transferred to her local school. At Summerton Public School Fatima had the opportunity to go to school with friends from her local neighbourhood and to learn her native Arabic language.

6.3 Profile of the Participants and the Learning Environment

In the examination of Fatima’s inclusive placement, knowledge about the school environment (i.e., the students, teachers and attributes of the classroom) is crucial.

6.3.1 Fatima Salem

According to her teacher at Rockville Hearing Unit Fatima was “an energetic sparkle that could make things very interesting” (Tindle, 1999, p.14). Data in this study showed that Fatima’s mood was directly related to her personal comfort with the situation (i.e., the venue or the participants). When she was unsure of the surroundings Fatima was quiet and refused to communicate with people in her immediate presence (e.g., at the 1998 Transition Meeting). In contrast, when she was with her supportive friends, Fatima was an enthusiastic student who
enjoyed participating in classroom and extra-curricular activities (e.g., the class dance group, the gymnastics group and the school talent contest).

Despite Fatima’s quiet personality she had definite opinions of her own. During this study Fatima disclosed that she did not like going to Arabic School on Saturday (Salem 1st Student Interview, 1999). At school Fatima’s favourite subjects were handwriting, mathematics and sport. She liked handwriting because “You can just follow the words and copy it!” (Salem 1st Student Interview, 1999, p.2). Her favourite sports were soccer and skippings with the long rope (Salem 1st Student Interview, 1999). Fatima’s excellent performances at the 1999 and 2000 school athletics carnivals revealed her remarkable talent in athletics when she gained first place in her age 100 and 200 metre race.

At home Fatima enjoyed watching television (e.g., *Home and Away*), listening to popular music on the radio (e.g., *Spice Girls*), riding her bike and playing schools with her three best friends from school (Salem 1st Student Interview, 1999). When playing schools with her friends, Fatima was always the teacher (Salem 1st Student Interview, 1999). During this study Fatima disclosed that she would like to be a teacher when she left school (Salem 4th Student Interview, 2000). Because her mother was busy looking after her baby sister, Fatima also enjoyed helping her mother with the housework at home (e.g., washing up and hanging out the washing).

In the second student interview (1999) Fatima disclosed that she identified with hard-of-hearing people. Her only experience with deaf or hard-of-hearing people was at the Hearing Unit at Rockville Public School. Fatima has a positive attitude to her hearing aids. In the third student interview Fatima remarked, “They help me to hear. I wear them everywhere” (Salem, 2000, p.1). During the 3rd student interview (2000) Fatima also noted that she could hear most things when she wore her hearing aids, including the sound of a watch ticking. Indeed Fatima’s hearing aids
were a natural part of her apparel (e.g., she wore her hearing aids when she had her portrait taken at the photographic studio and she almost wore them at swimming lessons).

Prior to her enrolment at Summerton Public School Fatima relied heavily on assistance from adults. At home her mother took responsibility for her organisational needs (e.g., tidying her room and packing her bag for school). When Fatima was enrolled at the Hearing Unit her teacher took responsibility for her personal needs. For instance, if Fatima lost her hat at school her mother would write in the communication book for the teacher to look for her daughter’s hat at school (Tindle, 1999).

Initially at Summerton Public School Fatima required an extraordinary amount of adult assistance. Her Year 3 teacher remarked, “Whoever comes to help in the classroom always helps Fatima” (Salem Researcher Diary, 1999, p.2). During this time Fatima was also neglectful about her hearing equipment. When moving to a different location in the school Fatima often did not take time to put her FM in the carry bag or she would often forget to take the FM altogether (Salem Researcher Diary, 1998-1999).

6.3.2 Mr Salem

Mr Salem believed he did not have a close relationship with his older daughter due to his work commitments and his inability to satisfactorily communicate with his daughter. He commented, “She missed seeing me. I would come home and go to sleep. Then she would go off to school. It isn’t much of a relationship. Then I had two jobs. I bought my own business” (Salem Parent Interview, 2000, p.2).

6.3.3 Mrs Salem

In contrast to her distant relationship with her father, there was a strong bond between Fatima and her mother (Salem, 1999). At the annual Review Meeting (2000) Mrs Salem reported
that she communicated with her daughter in Arabic and English. Despite Mrs Salem’s proficiency in her native language, her husband and elder daughter had difficulty writing and reading in Arabic.

Mrs Salem was happy when Fatima enrolled at Summerton Public School. She was pleased that Fatima could go to school with her neighbourhood friends and delighted that her daughter had the opportunity to learn Arabic (Salem, 1999). Mrs Salem thought her daughter’s successful transition to Summerton Public School was due to cultural and community support. During the first parent interview Mrs Salem declared, “Fatima is much happier here because she is with kids that she knows, kids from her community” (Salem, 1999, p.1).

Mrs Salem had a positive attitude towards Fatima’s teachers at Summerton Public School. She was aware and thankful that a variety of teachers supported her daughter’s education (Salem, 1999). Fatima’s mother also believed her daughter’s teachers had a good understanding of Fatima’s special hearing needs. During the first parent interview in this study Mrs Salem stated, “Mrs Smith talked to me, she knows everything. She told me like you’re telling me now. That means she’s aware of Fatima’s needs” (Salem, 1999, p.12).

Since the diagnosis of Fatima’s hearing loss Mrs Salem has supported her daughter’s special listening needs. “I help her at home and she sometimes find difficulty it happens so quick. I have to repeat things three or four times to make her understand” (Salem, 1998, p.2). During the first parent interview Mrs Salem disclosed that it took a while for Fatima to accept her hearing aids. Mrs Salem commented, “First when she got them they were hurting her. I don’t know she didn’t get used to them easy. It takes her time. But it’s normal. She just puts them on. But sometimes like if I want to do her hair or something and there’s people about and I want to fix it for her she keeps hiding it!” (Salem, 1999, p.12).
6.3.4 Fatima’s Class Teacher and Support Teachers

Knowledge of Fatima’s teachers was essential to study her inclusive education. The six teachers who participated in this case study completed the *Survey of Teacher Opinions and Perceptions* (Ringlaben & Price, 1981) (Appendix G). Findings from the survey are shown in Figure 14. All teachers in this case study indicated that they knew little about NSW Department of Education and Training policy on inclusion (Item 1) and that they felt unprepared for the student with a hearing impairment in their classroom (Item 2). Most teachers in this study were willing to have a student with a hearing impairment in their class (Item 3) but were apprehensive about their ability to teach Fatima. This was because they had no experience teaching students with a hearing impairment or using hearing technology (Item 4). Teacher 5 commented, “I really don’t know how to work this thing (FM)” (Salem Researcher Diary, 1999, p.9). All teachers in this study believed they could be open-minded and flexible when working with other participants who were involved in Fatima’s education (Item 5). These attributes were important because a number of teachers and school personnel participated in Fatima’s education at Summerton Public School.
Figure 14. Survey of the teachers’ opinions and perceptions of inclusion in Case Study Three. (Ringlaben & Price, 1981).

In the discussion of Fatima’s inclusive education, knowledge of the qualifications and teaching experience of her teachers was also necessary (Appendix C) (Table 10). All teachers who participated in this study had a diploma or degree in education and were fairly experienced teachers. Teacher 2 who was yet to receive a permanent teaching position had only taught at Summerton Public School. Teachers 3, 4 and 6 had taught primary and secondary classes. As a result of Fatima’s enrolment in Term Four, three class teachers participated in this study (i.e., Teacher 1, 2 and 4). Teacher 3, who had a Master of Education, was the only participant in this study with special education training.
Table 10

Teacher Information in Case Study Three

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Qualifications</th>
<th>Number of years teaching</th>
<th>Grades taught</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Grad.Dip.Perform.Arts Diploma Teaching</td>
<td>8</td>
<td>K. 1, 2, 3, 4</td>
</tr>
<tr>
<td>2.</td>
<td>Bachelor Education (Primary)</td>
<td>4</td>
<td>1, 3, 4</td>
</tr>
<tr>
<td>3.</td>
<td>Graduate Diploma (Hearing)</td>
<td>24</td>
<td>K - 6 (Regular classroom); K- 12 (ISTH)</td>
</tr>
<tr>
<td>4.</td>
<td>Bachelor Arts; Diploma Education</td>
<td>4</td>
<td>K- 12 (Community Language)</td>
</tr>
<tr>
<td>5.</td>
<td>Bachelor Education (Primary)</td>
<td>6</td>
<td>3, 4, 5, 6</td>
</tr>
<tr>
<td>6.</td>
<td>Bachelor Education</td>
<td>14</td>
<td>7- 11 (Science); K- 6 (Community Language)</td>
</tr>
</tbody>
</table>

6.3.5 Classroom Environment

Knowledge of the classroom environment (i.e., physical location of the classroom and teaching strategies used in the classroom) was necessary to study Fatima’s inclusive placement. At Rockville Public School Fatima’s classroom was located “Up in no man’s land, up round the corner and way down round the end out of sight” (Tindle, 1999, p.13). In contrast to her previous education, Fatima’s classrooms at Summerton Public School were always located in the same brick building as other classes in her grade. In both years of the study Fatima’s classroom was carpeted, quite spacious and had good natural light. The Year 4 classroom in the second year of the study was especially quiet because there were only two classrooms on the floor.
In both years of the study the students' desks were arranged in rectangular cluster groups which faced the chalkboard. Fatima who sat towards the front in the middle block always sat next to her friend. Throughout this case study Fatima’s teachers used a variety of teaching strategies in the classroom. These strategies included whole group, team teaching, specialist grouping (e.g., talking and listening groups) and individual instruction (e.g., integration support).

6.3.6 Class Members

Knowledge of Fatima’s peers was important to study her inclusive education. A profile of the students in Year 2, Three and Four is shown in Table 11. In the first year of this study Fatima was enrolled in composite classes at Summerton Public School. Students who were considered mature and independent workers for the grade were placed in these classes. In the second year of this case study Fatima was enrolled in a straight Year 4 class. Most students in Fatima’s classes came from non-English speaking backgrounds, with a predominant number of students from an Arabic background. In this class profile teachers noted the students’ academic performance (i.e., exceptional, very good academically, mixed ability) and social performance (i.e., well integrated, gets on well together).
Table 11

Class Profile in Case Study Three

<table>
<thead>
<tr>
<th>Research year</th>
<th>Students in class</th>
<th>Country of origin</th>
<th>Teacher comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
<td>Arabic</td>
</tr>
<tr>
<td>1st Year</td>
<td>7</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Term 4</td>
<td>9</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Yr. 1 /</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Yr. 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>1st Year</td>
<td>6</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Yr. 3 /</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yr. 4</td>
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<td></td>
</tr>
<tr>
<td>2nd Year</td>
<td>12</td>
<td>13</td>
<td>22</td>
</tr>
</tbody>
</table>

Knowledge of the participants and the school environment provided background data in the examination of Fatima’s inclusive placement at Summerton Public School.
6.4 Exploring Fatima’s Inclusive Education

6.4.1 How successful is Fatima’s educational placement?

During the period of this study Fatima had three class teachers. The three class teachers completed the Bunch (1987) Integration Rating Guide (Appendix I). Using criteria stipulated in the Integration Rating Guide, Fatima should obtain satisfactory results at school with specialised assistance from a teacher of the hearing impaired on a regular basis.

Positive findings from the Integration Rating Guide were Fatima’s relationship with her peers and the consistent support of her parents. Data from the Rating Guide also revealed weaknesses in Fatima’s academic and intellectual potential and in her ability to communicate and interact in the classroom environment.

6.4.2 An extensive assessment and analysis of Fatima’s inclusive education

Data from the Integration Rating Guide provided an outline of Fatima’s educational performance in the regular classroom environment. A more detailed study of the five variables which influenced the success of her inclusive placement, is discussed in the following section of this study.

6.4.3 Variable One (Academic Performance)

At Summerton Public School Fatima completed the same work and participated in the same activities as her class peers. Fatima enjoyed class excursions and field trips to Canberra, Darling Harbour and the local creek. In her diary she wrote, “On Tuesday we went to Willow Creek. I was very happy and joyful on that excursion” (Salem Student Diary, 2000). As a member of the class Fatima had the expectation that her work would be assessed using the same objective measures as her peers. Similarly, just like her peers, she completed her incomplete work at lunchtime.
6.4.3.1 Fatima’s Personal Report Card

Fatima thought her best subjects at school were spelling and mathematics (Salem 1st Student Interview, 1999). In the classroom Fatima liked to do handwriting, “Cause you can just follow the words and copy it” and mathematics “Cause maybe there’s some pluses and takeaways and times” (Salem 1st Student Interview, 1999, p.2). During the first interview Fatima commented that her worst subjects were reading and completing comprehension activities from the chalkboard. At home Fatima was happy when her homework was completed because then she was allowed to play with her friends (Salem Student Diary, 1999). In her personal diary (1999) she wrote, “I love playing skippings, hide and seek and schools with my friends.” Fatima was always the teacher when she played schools with her friends (Salem 1st Student Interview, 1999).

6.4.3.2 The Teacher’s Thoughts on Fatima’s Academic Performance

When Fatima enrolled in the pre-school class at the Hearing Unit she relied on assistance from adults, she spoke little English and she communicated using one-word responses (Tindle, 1999). Until her enrolment in the Hearing Unit Fatima communicated with her family in Arabic (Salem, 1999). At home, Mr And Mrs Salem found it easier to speak and do things for their young daughter (Salem, 1999). However, by the end of her first year in the pre-school class Fatima could use a variety of phrases, respond to questions, count to eight, identify the basic colours and enjoyed singing nursery rhymes (Salem School Report, 1994).

Towards the end of her second year in the pre-school class Fatima’s speech had become clearer and she could speak in grammatically correct sentences (Salem School Report, 1995). The pre-school teacher in her yearly report (1995) noted that Fatima had developed appropriate pre-reading skills and that she had a good knowledge of related mathematics concepts (e.g., she
could count to 15 and recognise numbers from one to ten). With the acquisition of these skills and knowledge Fatima was promoted to the Kindergarten class in the Hearing Unit.

In Kindergarten, Fatima displayed a positive attitude to learning, developed good mathematical concepts and satisfactorily completed activities from the reading and language program (Salem School Report, 1996). In this small learning environment Fatima voluntarily participated in talking and listening activities with her peers (Salem School Report, 1996).

In Year 1 Fatima was integrated into the regular Year 1 class for mathematics, art, sport, fitness and junior assemblies. In her yearly report (1997) the teacher in the Hearing Unit noted that Fatima could follow three step instructions and that she participated in discussions about everyday activities. In her report the teacher also discussed Fatima’s inconsistent writing and spelling skills (i.e., her use of lower and upper case letters) (Salem School Report, 1997).

In Year 2 Fatima was integrated into the regular Year 2 class for most subjects (i.e., reading, mathematics, art, sport, fitness and assembly). After the Review Meeting in Term Three (1998) Fatima transferred to Summerton Public School in Term Four, 1998. In her first term at Summerton Fatima completed selected work from the class program, as there was little time to ascertain her academic ability and needs for support. Results from class and individual tests showed numerous gaps in her vocabulary and language.

At the beginning of Year 3 Fatima had great difficulty settling into class and personal routine (Salem Researcher Diary, 1999). In a class of twenty-eight students Fatima had to take greater responsibility for her learning. Her Year 3 teacher remarked, “She still needs to learn what is acceptable” (Salem Researcher Diary, 1999, p.4). Feeling somewhat daunted by her new educational environment Fatima would sit quietly at her desk and complete only a small amount of work. During written activities she spent much of her time ruling margins and making
interesting headings. Hence, in her first year at Summerton Public School staying on task and completing her work was a problem for Fatima (Salem School Report, 1999). Her Year 3 teacher stated, “She has a hard time getting it going. She’s staying in at lunchtime to finish her work. I’ve tried to be patient but the others have all finished their map” (Salem Researcher Diary, 1999, p.2). The Year 3 teacher further commented, “Academically she is the worst in the class. Whoever comes to help in the classroom always helps Fatima. You have to stand over her the whole time, each step of the way or she will not work but just sit there” (Salem Researcher Diary, 1999, p.2). All teachers who completed the Mainstream Checklist (Appendix H) in this study indicated that Fatima was ‘not of average or better intelligence' when compared to peers in her class. In her Year 3 Basic Skills Test (1999) Fatima scored mid band two in Literacy and upper Band One in Numeracy (Table 12).

Table 12

<table>
<thead>
<tr>
<th></th>
<th>Skill band 1</th>
<th>Skill band 2</th>
<th>Skill band 3</th>
<th>Skill band 4</th>
<th>Skill band 5</th>
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<tr>
<td>Literacy</td>
<td>11%</td>
<td>20%</td>
<td>30%</td>
<td>25%</td>
<td>14%</td>
</tr>
<tr>
<td>Numeracy</td>
<td>10%</td>
<td>17%</td>
<td>31%</td>
<td>26%</td>
<td>16%</td>
</tr>
</tbody>
</table>

*Note.* From NSW Department Education and Training, Year 3 Basic Skills Test, 1999.

In Year 4 the class teacher reported that Fatima had made pleasing performance in all literacy areas and was making slow and steady performance in mathematics (Salem Review Meeting, 2000). The Year 4 teacher reported that, “Fatima was a happy, well-behaved class
member who fits in well in the class and was a pleasure to teach” (Salem Review Meeting, 2000). The Year 4 Arabic Community Language teacher noted a positive change in Fatima’s attitude to learning from Year 3 to Year 4. The Arabic teacher remarked, “Fatima is more open, wanting to be involved in class activities. She is very good at Arabic” (Salem Researcher Diary, 2000, p.11).

6.4.3.3 Academic Performance Support Strategies

At Summerton Public School Fatima accessed the class program with assistance from her hearing aids and FM receiver, with individual and specialised support from her integration aide and her Itinerant Support Teacher Hearing and with the use of appropriate teaching strategies (i.e., preferential seating). Whenever necessary Fatima received extra time to complete grade and external tests such as the Basic Skills Test. (NB Provision for extra time followed criteria stipulated by the NSW Department of Education and Training).

6.4.3.4 Analysis of Academic Performance

When Fatima enrolled at Summerton Public School she was disorganised and could not work independently. Her teacher at the Hearing Unit commented, “Fatima really didn’t accept that she is really responsible for anything. Rather everyone else is” (Tindle, 1999, p.2). In her first year at Summerton Public School Fatima’s Individual Education Program focused on her personal work habits and her interaction with students in the classroom (Salem Individual Education Program, 1999). At home Mr and Mrs Salem also targeted goals in their daughter’s education (Salem, 1999). These goals were the completion of Fatima’s schoolwork, including her homework, her participation in class activities and her consistent use of her FM system at school.
In the classroom, the integration aide assisted with Fatima’s personal and organisational needs. In withdrawal itinerant hearing sessions Fatima completed auditory training and speech activities and she reviewed language/skills from the class program. This strategy sometimes had a negative impact on Fatima’s work, as she was never up-to-date with her class work (e.g., in the withdrawal session Fatima revised single digit subtraction algorithms using concrete materials whilst students in the classroom completed double-digit algorithms). In supporting Fatima’s numerous academic needs it was a dilemma whether she should receive in-class or withdrawal support. Lynas (1999) reported the same dilemma. After numerous discussions between the class teacher and support personnel the dilemma was resolved with the identification and prioritisation of Fatima’s academic and learning needs.

After six months at her local school Fatima showed improved organisational and independent skills in the classroom. The Year 3 teacher remarked, “She is happy and at last she has settled in” (Salem Researcher Diary, 1999, p.5). The Year 3 Release teacher noted, “What a change. It’s hard to believe it is the same girl” (Salem Researcher Diary, 1999, p.7). In ISTH sessions in the latter period of the year Fatima iterated, “I am on fire” (referring to her accuracy in a spelling quiz) and “I feel very happy at school Mrs Carter” (Salem Researcher Diary, 1999, p.12). In her yearly report the class teacher highlighted the improvement in Fatima’s organisational and independent work skills (Salem School Report, 1999).

Despite the improvement in Fatima’s approach to learning, her academic performance was inconsistent and below grade average at the end of the Year 3 (Salem School Report, 1999). Her Year 3 teacher stated, “Some days she can trade and other days she can’t” (Salem Researcher Diary, 1999, p.18). However, results from her tests revealed that Fatima had remembered language and skills which she had been taught in Year 3. For instance, in the Year 3
Basic Skills Test (1999) Fatima satisfactorily used capital letters in her writing and she correctly completed single digit addition, subtraction and multiplication algorithms.

When Fatima was in Year 4 her academic performance was still a concern. She performed poorly in the Mathematics Competition and in the Count Me In retest. After the Mathematics Competition Fatima's integration aide remarked, "She was inclined to guess and write the first thing that came into her head" (Salem Researcher Diary, 2000, p.25). In spite of Fatima's poor academic performance she had become a motivated student by the end of Year 4 (Salem Researcher Diary, 2000). Eager to participate in all class and school activities, the completion of her class work was no longer a problem for Fatima.

Ascertaining Fatima's academic needs for support was difficult because of limited documentation from the Hearing Unit and due to the use of general terms in her school reports (Salem School Report, 1998-1999). In the final year of this study changes were made to the method of reporting on student performance and progress at school (e.g., the use of set outcomes for each of the key areas of learning at school). With accurate knowledge of her learning needs, Fatima's teachers addressed weaknesses in her academic performance.

6.4.4 Variable Two (Personal/Social Performance)

When Fatima enrolled at Summerton Public School she was a shy and reserved student who did not know anyone else in her class (Salem, 1998). By the end of her first term at her local school she had developed a close network of friends (Salem School Report, 1998). Her friends helped her adjust to her new school environment and also assisted with her academic work. Fatima was appreciative of the support from her fellow students at Summerton Public School. For example, after reading her pirate poem at the school assembly Fatima remarked, "I read
clearly. The microphone didn’t work. Everyone had good manners and listened to me” (Salem Researcher Diary, 1998, p.1).

6.4.4.1 Fatima at School

In Year 3 the class teacher noted that Fatima was a quiet student who had developed some strong friendships in class (Salem Review Meeting, 1999). With assistance from her friends Fatima satisfactorily completed class activities such as reading and comprehension tasks. Although Fatima participated in most class and school activities, her Year 3 teacher noted that she always seemed a little hesitant (Salem School Report, 1999).

In Year 4 the teacher reported that Fatima was a happy and popular student who enjoyed participating in most activities at school (Salem Review Meeting, 2000). These activities included the athletics carnival, the gymnastic group and talent contests. Indeed, the day after Fatima left on her overseas holiday the tone of the classroom was quite subdued. Her close friend Nina commented, “I miss Fatima, I need to give her a big cuddle” (Salem Researcher Diary, 2000, p.24). On the parent comment sheet Mrs Salem wrote, “She has greatly improved in her relationship with her friends and teachers. Her whole attitude in dealing with others has greatly improved” (Salem Review Meeting, 2000). At the Review Meeting (2000) Mr Salem revealed that his daughter often played with her school friends at home.

Results from the Meadow-Kendall Social Inventory (Meadow, 1983) (Appendix J) confirmed that Fatima had socially adjusted to her new school (i.e., she was a happy, cooperative and well-behaved student in class) (Figure 15). Weaknesses in her social adjustment resulted from her limited and at times inappropriate emotional responses. Because she was the only junior girl in her class at the Hearing Unit Fatima had few opportunities to develop age appropriate social skills. Findings from the second area of self-image revealed that Fatima was a
popular student at school who took great pride in her personal appearance. Weaknesses in her self-image included her reluctance to interact with people and her ability to tune-out during class activities. In the area of emotional adjustment, results from the inventory showed Fatima felt comfortable and competent in her inclusive classroom. Weaknesses in her emotional adjustment included her concern with insignificant detail, her anxiety about commonplace things and her reliance on routine at school. Of the three areas investigated in the Meadow-Kendall Social Inventory, Fatima’s self-image was the greatest concern.

Figure 15. Results of the Meadow-Kendall Assessment Inventory in Case Study Three.

6.4.4.2 Personal/Social Performance Support Strategies

Fatima was a popular student who had a close network of caring and supportive friends. Her friends assisted with her school work and encouraged her participation in grade and school activities. The positive relationship between Fatima and her peers was promoted through awareness and understanding. Prior to her enrolment at Summerton Public School and at the
beginning of each year her teachers and peers attended in-service courses on her special hearing needs.

6.4.4.3 Analysis of Personal/Social Performance

By the end of this study Fatima had changed from a quiet, shy, isolated student to a happy, popular student with a network of caring and supportive friends (Salem School Report, 2000). Mr and Mrs Salem were pleased that Fatima was happy at her new school (Salem Collaborative Team Scale, 2000; Salem Review Meeting, 2000). Fatima’s hearing impairment did not affect her relationship with her peers when they had knowledge of her special needs. The Year 4 teacher stated, “She is accepted by them. She is one of them. The fact that she wears hearing aids and an FM doesn’t matter to them or to Fatima!” (Salem Researcher Diary, 2000, p.24).

This study shows that Fatima’s attitude and personality often had an impact on her inclusive education (e.g., her participation in activities and completion of assessment tasks, her motivation to learn and her relationship with her peers). When ascertaining Fatima’s needs it was important for her to feel comfortable with the assessor and the assessment situation (e.g., the venue, the format/procedure of the test and her assessor). Fatima’s Kindergarten teacher reported, “She just sits there and waits for you to answer for her. Yet she often knows the answer!” (Tindle, 1999, p.1). In her report the specialist school counsellor wrote, “Fatima was quiet and tended to react negatively to the level of attention. This reticence has been a long-term feature of Fatima’s behaviour and it is only recently that she has answered a direct question from an adult. In addition, Fatima tended to give up easily on some performance items which it is believed to have deflated her overall result on the Performance Scale” (Salem Specialist Counsellor Report, 1997, p.1). Fatima’s shy and reticent personality influenced her responses in
the third student interview (2000). Initially Fatima responded quite freely to the questions/items. However, this soon changed when a member of the school executive entered the room. Although the member of staff was only in the room for a brief period of time, Fatima did not want to continue the interview.

Familiarity and personal motivation were key factors in Fatima’s successful inclusive education. The teacher at the Hearing Unit stated, “She’s not self-motivated you see, so if you have got no incentive at the end of it well, who knows?” (Tindle, 1999, p.10). In Year 3 the teacher used positive and negative extrinsic measures to motivate Fatima to complete her work (e.g., playing on the chalkboard and completing her work at lunchtime). In Year 4 with encouragement from her teachers, peers and parents, Fatima developed a positive attitude to her school work and took greater responsibility for her learning (Salem School Report, 2000).

6.4.5 Variable Three (Physical/Interactional Performance)

Knowledge of Fatima’s physical and interactional performance was important. Fatima spoke clearly and with good articulation (Salem School Report, 1994-2000). The only concern with her speech was a lack of volume (Salem School Report 1994-2000). During this study Fatima reported that people understood almost everything she said, that she loved talking with her friends and that she felt uncomfortable talking with someone for the first time (Salem 2nd Student Interview, 1999). The pre-school teacher at the Hearing Unit confirmed Fatima’s reticence amongst strangers (Tindle, 1999). In Fatima’s yearly report the teacher wrote, “Fatima is shy when confronted by new people or situations but settles in well once she feels secure” (Salem School Report, 1994, p.1). Hence, at the transition meeting (1998) which was held prior to her enrolment at Summerton Public School, Fatima did not say a word, not even when she was asked her address or phone number. Fatima demonstrated this knowledge (i.e., could say her
address and phone number) in Kindergarten (Salem School Report, 1996). Fatima’s teacher at the Hearing Unit remarked, “She is manipulative in not talking to you. And you have to actually spell it out to her that people will think that she is just being rude!” (Tindle, 1999, p.6).

In the initial period of this case study Fatima reluctantly participated in group and class activities (e.g., results from the Mainstream Checklist). Findings from the Mainstream Checklist also revealed that Fatima inconsistently used her FM amplification system, that she had difficulty understanding and following written and oral directions in class and that she rarely sought clarification from the teacher. Because of noise from other students Fatima reported that she sometimes had difficulty understanding the teacher’s instructions in the classroom (Salem 3rd Student Interview, 2000).

By the end of her first year at Summerton Public School Fatima interacted and participated in most class activities with the support of her friends. Her best friend stated, “Hey, come on we’re nearly finished. Look Fatima is almost as good as me!” (Salem Researcher Diary, 1999, p.16). At the end of Year 3 the class teacher noted that Fatima now asked questions when she did not understand language or concepts which were presented in class (Salem Researcher Diary, 1999, p.18).

In Year 4 there was a significant improvement in Fatima’s interactional skills in the classroom (Salem Review Meeting, 2000). In class Fatima happily participated in group and class conversations and often volunteered to do messages for the teacher. At a school assembly Fatima showed great maturity and personal confidence when she read her poem about the rainforest. In recognition of her personal effort and achievements in and out of the classroom Fatima was presented with the school Austie of the Month Award. By the end of Year 4 when Fatima was unsure of the task she developed the habit of asking her friends in preference to
asking her teacher. The Year 4 teacher reported, "She asks her friends a lot more than she asks me" (Salem Review Meeting, 2000, p.2). At the end of this case study, Fatima was still reluctant to interact with adults who were unfamiliar to her (e.g., the second school nurse).

6.4.5.1 Impact of Fatima’s Hearing Impairment

The paediatric audiologist at Australian Hearing Services confirmed that Fatima had a moderate-to-severe sensorineural hearing loss in both ears (Figure 16). In Figure 16 the broken and unbroken lines indicate the level of Fatima’s hearing. In a quiet room Fatima can hear all sounds below these lines without audiological assistance (e.g., a dog barking, the roar of aeroplane engine and the sound of a chain saw). Because of the severity of Fatima’s hearing loss she could not hear most sounds in the speech spectrum (i.e., the shaded area in Figure 16).

![Figure 16](image-url) Fatima’s current audiogram displayed on the frequency and intensity of familiar sounds spectrum used by Northern & Downs (1984).
From the time of her enrolment in the pre-school class at the Hearing Unit Fatima has willingly worn her hearing aids (Salem School Report, 1994-1998). Her positive attitude towards her hearing aids and later to her FM is the result of the encouragement and support from her parents, her teachers and her audiologist at Australian Hearing Services. Her Kindergarten teacher at the Hearing Unit wrote, “Each day she wears her hearing aids and FM with pride” (Salem School Report, 1996, p.6).

In her first year at Summerton Public School Fatima was reluctant to use her FM hearing device in the classroom (Salem, 1998; Salem Researcher Diary, 1998-9). Fatima quickly realised that no-one else in her class wore hearing aids or used an FM listening device. Whenever there was a change to class routine and a casual teacher worked on her class, Fatima would not wear her FM. During the first parent interview in this study Mrs Salem confirmed her daughter’s reluctance to be visually different from her peers (Salem, 1999).

When Fatima was in Year 4 she consistently used her FM in the classroom as a result of parental and school support. Mr and Mrs Salem were pro-active in their daughter’s use of hearing technology. Each morning they would ensure the FM was charged and packed in her school bag. Fatima’s parents were also helpful when faulty hearing equipment needed to be repaired (e.g., the teacher’s microphone clip broke four times). With time and experience school personnel at Summerton Public School were not so mystified by Fatima’s use of hearing technology. In Year 4, the class teacher and Fatima’s classmates enthusiastically supported her use of the FM. The FM became a natural, unobtrusive part of all lessons.

6.4.5.2 Physical/Interactional Performance Support Strategies

Whilst enrolled at Summerton Public School Fatima received assistance from her integration aide and Itinerant Support Teacher Hearing. Each year the Itinerant Teacher Hearing
informed Fatima’s teachers and fellow classmates of the implications of her hearing loss. Once a term in an itinerant session the three students with a hearing impairment at Summerton Public School participated in a games activity session. During these sessions Fatima became friends with other students who used hearing technology at Summerton Public School.

6.4.5.3 Analysis of Physical/Interactional Performance

When Fatima enrolled at Summerton Public School she was a shy and timid student (Salem Transition Meeting, 1998). Although she spoke well, Fatima rarely interacted in class and group discussions (Salem School Report, 1998). Initially in Year 3 Fatima was a student in a class in contrast to a member of the class (Salem Review Meeting, 1999). During this time she rarely spoke or sought clarification from the teacher and merely followed the actions of her peers. In Year 4 with encouragement from her teacher and fellow classmates Fatima became an active participant in group, class and school activities (Salem Researcher Diary, 2000; Salem Review Meeting, 2000).

The use of hearing technology was a vital aspect of Fatima’s successful inclusive education. Throughout this case study Fatima always wore her hearing aids at school. Fatima declared, “Of course I wear my hearing aids. I want to hear what they say” (Salem Researcher Diary, 2000, p.24). Fatima’s hearing aids were a natural part of her appearance (e.g., she wore her hearing aids when she had her portrait taken at the photographic studio and she almost wore her hearing aids during swimming lessons).

Unlike her positive attitude towards her hearing aids Fatima was initially reluctant to use her FM at Summerton Public School. Because of the severity of Fatima’s hearing loss she relied on her FM system to satisfactorily complete her work in the classroom (Salem Review Meeting, 1999-2000). Using the FM Fatima could listen to her teacher’s voice without the distraction of
classroom background noise. In Year 4 Fatima made better use of her FM (Salem Review Meeting, 2000). This was due to the support of her parents, teacher and classmates and the result of her taking greater responsibility for her learning. By the end of this study Fatima realised that she needed the FM as well as her hearing aids to satisfactorily access the class program (i.e., participate in activities and complete her work at school). The study by Perigoe (1999) reported that benefits from hearing technology could only be achieved with the consistent use of the equipment.

6.4.6 Variable Four (The School Environment)

In the examination of Fatima's inclusive placement knowledge of the school environment is necessary. The school environment included the design and location of Fatima's classroom and the participants who were involved in her inclusive education.

6.4.6.1 The Classroom

Noise and reverberation was not a problem in Fatima's inclusive education at Summerton Public School. As mentioned in the previous studies, the school office, hall, library and canteen were located in buildings separate from the classrooms. Her classrooms were located in full brick buildings, had carpet on the floors and were quite spacious. The brick buildings and carpeted floors absorbed external and internal noises respectively and the generous size of the classroom assisted student movement in the classroom. In each of Fatima's classrooms at Summerton Public School there was good natural light. This helped Fatima's ability to read people's lips and understand what was being communicated.

6.4.6.2 The School Community

At Summerton Public School a variety of personnel participated in Fatima's inclusive education. Fatima was supported by the school principal, the school counsellor, the school
integration adviser, her integration aide, her class teacher, her Itinerant Support Teacher Hearing, her English as a Second Language teacher, her Arabic Community Language teacher and the school librarian. The first six teachers were members of Fatima’s Learning Support Team.

According to the teacher at the Hearing Unit the principal at Rockville Public School had difficulty relating to students who were enrolled in the Hearing Unit. The teacher stated, “The principal was so uncomfortable with my kids it wasn’t funny. She just didn’t know what to do. She couldn’t cope at all” (Tindle, 1999, p.13). Data in this study confirmed the distant relationship between Fatima and the principal. On Fatima’s Pre-school Report the principal wrote, “Fatima still doesn’t talk to me” (Salem School Report, 1994). When Fatima was in Kindergarten the principal noted, “She still does not communicate with me” (Salem School Report, 1996).

In contrast Mrs Wallace, the school principal at Summerton Public School had a positive relationship with Fatima. Mrs Wallace participated in all of Fatima’s meetings, encouraged members of staff to visit the Hearing Unit at Rockville Public School, sought integration funding for Fatima’s inclusive placement, selected Fatima’s class teachers and liaised with Fatima on a regular basis (e.g., Fatima would regularly show her work to Mrs Wallace).

Towards the end of this study there was a change in the principal at Summerton Public School. The relationship between the principal and Fatima remained the same. At the review meeting the school principal stated, “Fatima was a valuable member of this school” (Salem Review Meeting, 2000, p.1).

The school counsellor was a positive and supportive member of Fatima’s Learning Support Team. The counsellor attended Review Meetings, had regular discussions with members of Fatima’s Learning Support Team and submitted Fatima’s application for integration funding
each year. The school counsellor also provided members of Fatima’s Learning Support Team with up-to-date knowledge of NSW Department of Education and Training policy on state integration funding.

The school integration co-ordinator was a valuable member of Fatima’s Learning Support Team. The integration representative organised Fatima’s Review Meetings, ensured all documentation for Fatima’s integration support was satisfactorily completed and co-ordinated Fatima’s on-going needs for support (e.g., Fatima’s Individual Education Program and integration aide timetable).

Although none of Fatima’s class teachers had experience teaching students with a hearing impairment they all had a positive attitude towards her educational placement at Summerton Public School. With knowledge of Fatima’s special needs, her teachers endeavoured to make her enrolment and participation in the classroom as normal as possible. Consequently, when Fatima failed to complete her class work on time she was kept in at lunchtime with other students who had incomplete work. Her Year 3 teacher remarked, “I’ve been very patient but I’ve got to keep her in at lunchtime. She’s got to get it finished” (Salem Researcher Diary, 1999, p.2). In Year 4 the positive, effervescent and inspirational personality of the class teacher transferred to all students in the class. The teacher encouraged students to believe in themselves, to support one another and to work together as a harmonious group (Salem Researcher Diary, 2000).

The integration aide had a positive attitude towards Fatima’s educational placement at Summerton Public School (Salem Collaborative Team Scale, 2000). When changes were made to Fatima’s Individual Education Program the integration aide commented, “Anything you want me to do just ask. I’m always open to suggestions” (Salem Researcher Diary, 2000, p.22). Because of the close working relationship among members of Fatima’s Learning Support Team
the integration aide felt comfortable discussing difficulties that occurred in Fatima’s education. For instance, after Fatima returned from her overseas holiday she initially refused to talk and complete her work for the integration aide. After a discussion with the class teacher and the itinerant hearing teacher, she opened up and talked about her trip and began to work again.

Since her enrolment at Summerton Public School Fatima has received two sessions from the Itinerant Support Teacher Hearing (ISTH) each week. Initially these were both withdrawal sessions as it was important to ascertain Fatima’s needs for support. Once Fatima’s needs were ascertained she received one withdrawal session and one in class team teaching support session. Withdrawal itinerant sessions focused on Fatima’s auditory, linguistic and academic needs. In team-teaching sessions Fatima’s academic skills were developed (e.g., reading and mathematics skills) and her social and personal skills were monitored.

During in-class sessions the itinerant hearing teacher supported Fatima, the class teachers and other students in the class. All students in the class appreciated and benefited from having an additional teacher in the room (e.g., greater teacher/student interaction in reading and mathematics groups). One of Fatima’s peers remarked, “I’m so glad you’ve come to help us Mrs Carter” (Salem Researcher Diary, 2000, p.21). In team-teaching sessions the class teacher and itinerant teacher often shared their teaching expertise. For example, for grammar lessons the class teacher and itinerant teacher reversed roles. The Year 4 teacher commented, “I think I’m learning as much as them” (Salem Researcher Diary, 2000, p.20).

In this study the Itinerant Hearing Teacher assisted the Year 3 and Year 4 teachers with Fatima’s school reports. The Year 3 teacher stated, “I’ve left the challenging reports to last. Thank you for your help. You have put it simply in terms that the parents will understand”
(Salem Researcher Diary, 1999, p.17). In Year 4 the class teacher sought a second opinion on the outcomes Fatima had achieved at school this year.

Each year at Summerton Public School, the Itinerant Hearing Teacher informed Fatima’s teachers and class peers of her special hearing needs. At an informal meeting teachers watched the video *Understanding Hearing Loss* and then discussed the implications of Fatima’s hearing loss (e.g., appropriate teaching strategies and her use of hearing technology). During an in-class session early in the year, the itinerant teacher read the story *David’s Hearing Loss* and briefly discussed the implications of Fatima’s hearing loss with her class peers (i.e., her hearing aids and FM).

The itinerant teacher liaised on a regular basis with Fatima’s audiologist at Australian Hearing Services. Whenever Fatima consulted the paediatric audiologist at Australian Hearing Services school personnel, including the itinerant teacher were provided with a report on her current hearing status and use of technology. At the end of each year the itinerant teacher provided the paediatric audiologist at Australian Hearing Services with a report on Fatima’s listening and use of hearing technology at school. Areas of future need and audiological support were also included in this report.

**6.4.6.3 Support Strategies in the School Environment**

Prior to her enrolment Fatima and her parents attended a transition meeting at Summerton Public School. At this meeting the Specialist Counsellor Hearing, the school principal, the school counsellor, the school integration adviser, the Itinerant Support Teacher Hearing and Mr and Mrs Salem discussed Fatima’s special needs for support. In preparation for her future enrolment Fatima’s future class teacher, Arabic Community Language Teacher and Itinerant Teacher
Hearing visited and liaised with her teacher at the Hearing Unit. In addition, the itinerant teacher informed all members of staff at Summerton Public School of Fatima’s special hearing needs.

Since her enrolment at Summerton Public School, a network of teachers has supported Fatima’s inclusive placement. Fatima’s class teacher reinforced the grade program, her integration aide supported her Individual Education Program, her English as a Second Language teacher developed her English literacy skills, her Arabic Community Language Teacher developed her understanding of her native language and her Itinerant Support Teacher Hearing developed her linguistic and auditory skills.

Each year at Summerton Public School Fatima’s network of friends supported her inclusive placement. In class, Fatima’s friends helped with the use of her FM, reminded her of her best seating position and assisted with her school work. Outside the classroom, her friends encouraged and supported her participation in school activities (e.g., participating in carnivals and going on excursions).

6.4.6.4 A Time not to Collaborate with Medical Personnel

When Fatima had an informal meeting with the second school nurse in this research, she changed from her bubbly, conversational self to her shy, silent self (Salem Researcher Diary, 2000, p.23). Because of the close working relationship between the audiologist at Australian Hearing Services and the Itinerant Teacher Hearing, it wasn’t necessary to involve the school nurse in Fatima’s education at Summerton Public School.

6.4.6.5 Analysis of the School Environment

A caring and informed school environment was a vital aspect of Fatima’s successful inclusive education. Characteristics of the school environment were effective leadership, positive attitudes, informed members, appropriate support and collaboration. The principal at Summerton
Public School was sensitive and supportive towards Fatima’s special needs and to the needs of her teachers. Furthermore, the principal ensured the availability of appropriate resources, encouraged school personnel to take an active role in Fatima’s inclusive education and acknowledged the effort of school personnel. The Year 4 teacher stated, “Whatever it takes to make her inclusive education successful. Anything you need Mrs Carter just ask” (Salem Researcher Diary, 2000, p.21).

An informed school environment was another crucial aspect of Fatima’s inclusive education. If Fatima’s inclusive education was going to be successful, it was important for her teachers and fellow classmates to have a basic understanding of the implications of her hearing loss. Accurate knowledge of her academic, social and personal performance was also necessary in supporting her inclusive education. Unfortunately, Fatima did not have an Individual Education Program (IEP) at the Hearing Unit. The teacher from the Hearing Unit commented, “It wasn’t set out on a piece of paper, I never quite figured it out how to do it” (Tindle, 1999, p.8). Each year at Summerton Public School Fatima accessed the class program with the implementation of her IEP.

Since Fatima’s enrolment in Year 2 at Summerton Public School a network of teachers has supported her inclusive education. In both years of this study a warm and positive relationship developed amongst members of Fatima’s Learning Support Team. Every member in this team had equal status and every participant felt comfortable raising concerns in Fatima’s inclusive education.

During this study Fatima reported that she had concerns with her education at Summerton Public School. In the third student interview (2000) Fatima mentioned that she did not know the name of her integration aide. Her Itinerant Teacher Hearing addressed this concern.
Data from this study also revealed that Fatima had hearing concerns outside the classroom (e.g., the school athletics carnival). In a conversation about the school athletics carnival Fatima stated, “I just went when the other kids went” (Salem Researcher Diary, 1999, p. 10) when she did not hear the starter’s pistol at the beginning of a race. This problem was resolved with the use of a white flag to accompany the starter’s pistol at future school carnivals.

Flexibility in support was an important aspect of the school environment. Due to changes in school and class routine variations in Fatima’s support program were necessary. Despite changes to routine there was always the expectation that Fatima would satisfactorily complete all activities from the class program (e.g., results from the Mainstream Checklist).

6.4.7 Variable Five (Parent and Family Support)

Mr and Mrs Salem were happy when Fatima enrolled at her local school (Salem Collaborative Team Scale, 1999-2000). At Summerton Public School their daughter had the opportunity to go to school with friends from her neighbourhood and she had the chance to learn Arabic which was her native language. Since the diagnosis of Fatima’s hearing loss Mr and Mrs Salem have actively supported their daughter’s use of hearing technology (Salem, 1999-2000). On Fatima’s school report the principal at Rockville Public School wrote, “Fatima is fortunate to have supportive parents to assist her to achieve well” (Salem School Report, 1996, p.4). Whenever Fatima questioned her use of hearing technology her mother was always positive and reassuring. In the first parent interview Mrs Salem remarked, “I spoke to my daughter and said sometimes kids wear glasses they’ve got problems it’s nothing. This is usual and you have to wear them, there’s no problem. It’s just like your wearing hearing aids. She said alright no worries” (Salem, 1999, p.4).
6.4.7.1 Interaction Between Fatima’s Parents and School Personnel

Following advice from school personnel Mr and Mrs Salem implemented strategies, which helped their daughter become an independent student at school. Fatima’s mother noted, “I write a list on a piece of paper on her door and she keep forgetting it. But I don’t want to do it for her. I want her to do it. I tell her like 100 times!” (Salem, 1999, p.8). During the first student interview Fatima stated, “My mum got a paper and write some things I have to do. She write charge my FM, do my homework, pack my bag. If I do it I will get a play station game” (Salem 1st Student Interview, 1999, p.6).

6.4.7.2 Parent and Family Support Strategies

Each year Mr Salem participated at Fatima’s Review Meeting. At these meetings Mr Salem and other members of the Learning Support Team discussed Fatima’s educational placement at Summerton Public School.

6.4.7.3 Analysis of Parent and Family Support

The positive attitude and support of Fatima’s parents was a crucial aspect of her education at Summerton Public School. Mr and Mrs Salem had a positive attitude towards their daughter’s use of hearing technology. Because of her parents’ positive approach Fatima accepted her hearing disability and always wore her hearing aids (at home and at school). Following advice from school personnel Mr and Mrs Salem implemented strategies that helped their daughter take greater responsibility for her learning and completing her homework. Mr and Mrs Salem also encouraged Fatima’s friendships with classmates from her local school (e.g., after school play sessions, birthday parties and visits to the movies).

Despite Mr and Mrs Salem’s positive attitude towards their daughter’s hearing disability there was a distant relationship between Fatima’s teachers and her parents. After Fatima’s
enrolment at her local school Mr and Mrs Salem had little contact with school personnel. Data collected in this study revealed a variety of reasons for the distant relationship. First, Mr and Mrs Salem had a limited understanding of English, especially when audiological terms were used. Hence they viewed school personnel as the experts in their daughter’s education. Second, with no history of hearing loss in the family Mr and Mrs Salem relied on specialist medical and educational assistance. Third, Mr and Mrs Salem felt comfortable with the practice of using ‘a communication book’ when liaising with Fatima’s teachers. With almost thirty students in their class, teachers at Summerton Public School were unable to sustain this type of arrangement. Finally, with Fatima’s enrolment at her local school, Mr and Mrs Salem now regarded their young daughter as being ‘normal’. Consequently, they did not regularly communicate with her class teacher. After all she was happy and had lots of friends at her new school (Salem Review Meeting, 2000).

In Fatima’s successful education at Summerton Public School Mr and Mrs Salem required practical and emotional assistance. During the first parent interview in this study (1999) Mrs Salem required assistance with Fatima’s organisational and independent skills at home (e.g., the completion of her homework and preparation for school). Data in the study also showed that Fatima’s parents did not understand why certain decisions were made in their daughter’s education (e.g., her enrolment in the pre-school class at the Hearing Unit). Therefore, it was important that Mr and Mrs Salem understood the language and strategies discussed at meetings. In addition, Mr and Mrs Salem needed encouragement to take an active role in their daughter’s education (e.g., participation in the Learning Support Team and interaction with Fatima’s teachers).
Parental support was a crucial aspect of Fatima’s successful education at Summerton Public School. Throughout Fatima’s education at her local school, educational personnel monitored and addressed Mr and Mrs Salem’s needs for support.

6.5 Understandings from this Case Study

6.5.1 Inclusion is About Understanding People

After Fatima enrolled at Summerton Public School she had difficulty settling in to school and class routine. With time and specialist support Fatima adjusted to her new school environment. By the second year of this case study Fatima was a popular student at her local school and she had a close and supportive group of friends. In Year 4 Fatima was a motivated student who enjoyed participating in all class and school activities. As a result of her positive attitude to learning Fatima took greater personal responsibility for her education (e.g., her enthusiastic participation in class times tables activities). The change in Fatima’s attitude and approach to learning also had a positive impact on her academic skills and performance. By the end of this study Fatima was working towards learning outcomes appropriate for her year.

Despite the late diagnosis of Fatima’s hearing disability Mr and Mrs Salem have endeavoured to make their daughter’s life as normal as possible. They were both pleased when Fatima enrolled at Summerton Public School. Once Fatima was happy and settled at her new school Mr and Mrs Salem adopted a passive role in their daughter’s education (Salem, 1999).

Findings from this study disclosed that Mr and Mrs Salem have relied on advice and assistance from specialist personnel since the diagnosis of their daughter’s hearing loss (Salem, 2000). With a limited understanding of English and hearing impairment Mr and Mrs Salem willingly accepted advice from medical, educational and specialist personnel (Salem Collaborative Team Scale, 1999-2000). Hence, when Fatima enrolled at Summerton Public
School Mr and Mrs Salem felt comfortable giving the responsibility of their daughter’s education to her teachers. Whereas this was possible in a class of five students at the Hearing Unit, it was not possible in a class of almost thirty students. Consequently, Mr and Mrs Salem will need to take greater responsibility for their daughter’s education at Summerton Public School.

6.5.2 A Positive and Informed School Environment

A positive, supportive school environment was a vital aspect of Fatima’s successful inclusive education. The school principal was a positive and persuasive advocate in Fatima’s education at Summerton Public School. The principal always focused on solutions to, rather than weaknesses in Fatima’s education. When teachers were hesitant about their ability to address Fatima’s special hearing needs the principal encouraged teachers to visit the Hearing Unit at Rockville Public School. The principal also ensured that members of staff and Year 2 classmates had a basic understanding of the implications of Fatima’s hearing loss.

When Fatima enrolled at Summerton Public School it took over six months for her to develop a positive working relationship with her teachers. This was due to Fatima’s shy personality and because of limited documentation from her previous school (e.g., she did not have a written Individual Education Program at the Hearing Unit). It was also due to her teachers’ inexperience of students with a hearing impairment and their lack of training in special education. Data in this case study revealed that with time, knowledge and appropriate support Fatima’s inclusive needs were satisfactorily addressed at Summerton Public School.

6.6 Implications and Recommendations from the Study

6.6.1 Implications for Fatima

Without a written Individual Education Program it was difficult to know what work Fatima had completed at her previous school. Despite the fact that personnel at Rockville Public
School recommended Fatima’s full-time education in a regular class, teachers at Summerton Public School found there were huge gaps in Fatima’s academic and social performance. In the new school environment obvious concerns included Fatima’s use of hearing technology, her incomplete work, her reliance on adult assistance and her difficulty in full participation at athletic carnivals. Less obvious concerns included her anxiety resulting from the larger number of students in the class, her shyness because of the unfamiliar surroundings and her lack of academic knowledge and skills.

Data from this study showed Fatima’s motivation to learn had a direct impact on her academic performance (e.g., Fatima’s desire to learn her times tables in mathematics). When Fatima transferred to her local school it took a long time for her to feel comfortable and happy in her new educational environment (Salem School Report, 1998-1999). Yet little time was taken in her transition from Rockville to Summerton Public School (Table 13). Fatima would have benefited from a gradual transition program to her local school (e.g., in the first term two days at Summerton Public School and three days at Rockville Public School). After this strategy was reviewed and deemed successful, Fatima could have been enrolled at Summerton Public School on a full-time basis.

Table 13
Fatima’s Transition to Summerton Public School

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<td>Recommendation for Full-time inclusive Education at the annual Review Meeting</td>
<td>Transition Meeting at Summerton Public School</td>
<td>Fatima enrolled full-time at Summerton Public School</td>
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</table>
6.6.2 Implications for School Personnel

Data in this case study highlighted the need for accurate knowledge of the student’s medical and educational needs. In supporting Fatima’s successful inclusive education all teachers in this case study required a basic understanding of hearing impairment. With the exception of the Itinerant Teacher Hearing, Fatima’s teachers had no special education training or experience teaching students with a hearing impairment. Scruggs and Mastropieri (1996) found most regular classroom teachers had no training in special education nor had knowledge of the implications of a hearing loss. Therefore, all teachers who participated in Fatima’s education at Summerton Public School would benefit from special education training and a basic knowledge of hearing impairment.

6.6.3 Implications for School Practice

Implications for school practice from this study were the accuracy of school reports for students with special needs and the importance of collaboration when discussing educational intervention strategies for young children. Both issues influenced the success of the inclusive placement in this study.

Accuracy when reporting on student progress at school is important for all students. Findings from this case study revealed limited documentation of Fatima’s academic, social and personal performance at her previous school. It is essential when reporting on the performance of all students, including those with special needs, that NSW Department of Education and Training guidelines on reporting are followed (NSW Department of Education and Training, 2000b; NSW Department of School Education, 1996a).

Data from this study highlighted the need for educational personnel to work closely together in supporting the special needs of the student with a hearing impairment. In this study
recommendations for educational intervention strategies for young children with a hearing impairment were based on the thoughts of one person (i.e., the Assistant Principal Hearing). The Assistant Principal Hearing remarked, “It used to be great when the specialist counsellor used to be with me for those interviews. Now I am only doing it from my impression” (Harvey, 2000, p.5). The study by Cornes and Withshire (1999) highlighted the need for access to a specialist counsellor. Furthermore, the study by Villa et al. (1996) found that collaboration among personnel was sound educational practice when recommendations were made for the educational placement of children with a hearing impairment.
CHAPTER SEVEN

7.0 Cross Case Analysis

7.0.1 Introduction

The purpose of this research is not to analyse inclusive education but rather to examine the inclusive placement of three hearing-impaired students (Grove & Fisher, 1999). The five variables which influenced the success of the student’s educational placement were examined in the cross case analysis. In the discussion of the student’s inclusive placement the attitudes and perceptions of all participants who were involved in their education were also examined.

7.1 Analysis of the Five Variables in each Case Study

In each of the case studies the impact of the variables on the educational placement was different because of the unique needs of the student with a hearing impairment. In the analysis of the students’ educational placement a visual presentation of the variables is included in the written presentation of this research. In the diagrammatic presentation of the variables (Figures 17, 18 & 19) the larger circles signify areas of weakness in the students’ inclusive placement.

7.1.1 Analysis of Case Study One

The impact of the five variables on Hussein’s inclusive placement is shown in Figure 17. Findings revealed Hussein was a motivated student who was achieving grade appropriate learning outcomes (Moussa School Report, 1998-1999). Data showed Hussein was supported by a close network of friends (Moussa Researcher Diary, 1997-1999; Moussa School Report, 1997-1999) and by his parents (Moussa Parent Interview, 1997-1998; Moussa Review Meeting, 1997-1999). Concerns raised from the study focused on Hussein’s physical performance (Moussa Review Meeting, 1997-1999), the school environment (Moussa Review Meeting, 1993; Wallace, 2000) and the distant relationship between Hussein’s parents and school personnel (Moussa
Parent Interview, 1997; Moussa Researcher Diary, 1997-1999; Wallace, 2000) (Figure 17). Acceptance and support from his peers and other members of the school community were critical factors in Hussein's successful inclusion. Knowledge, awareness and the use of appropriate intervention strategies promoted Hussein's acceptance at Summerton Public School. Results of the case study also showed that Mr and Mrs Moussa rarely communicated with school personnel after Hussein's enrolment in Kindergarten (Wallace, 2000). Hence, it was necessary for school personnel to liaise with Hussein's parents on a formal and informal basis (e.g., Review Meetings and at the school multicultural day).

Figure 17. Analysis of the five variables in Case Study One.
7.1.2 Analysis of Case Study Two

Positive findings from the second case study were Mara's academic performance and a supportive school environment (Figure 18). Mara easily grasped concepts in mathematics and the results of her Basic Skills Tests revealed she had made steady progress at school (Velkovski Basic Skills Test, 1997 & 1999; Velkovski School Report, 1999-2000). Areas of concern in her education were her social performance, her physical performance and the attitude and support of her parents (Velkovski Review Meeting, 1995-2000; Velkovski School Report, 1995-2000) (Figure 18). Because of Mara’s poor speech, her reluctance to participate in activities and her limited social skills Mara had difficulty interacting with her peers and making friends at school. The negative attitude of her mother towards her hearing loss also had an adverse impact on her education at Summerton Public School (e.g., her limited use of hearing technology) (Velkovski Itinerant Support Teacher Hearing Report, 1995-1999).

![Diagram](image)

**Figure 18.** Analysis of the five variables in Case Study Two.
7.1.3 Analysis of Case Study Three

The impact of the five variables on Fatima's inclusive placement is shown in Figure 19. The third case study revealed that Fatima accepted her hearing loss and had a positive attitude towards her use of hearing technology (Salem Parent Interview, 2000; Salem School Report, 1996-2000). The study also revealed the positive attitude and support from members of the school environment (Salem Review Meeting, 1999-2000; Salem Transition Meeting, 1998) and from her parents (Salem Parent Interview, 1999). Areas of concern in Fatima's education were her poor academic performance (Salem School Report, 1999-2000), her inadequate work and organisational skills (Salem Researcher Diary, 1999), her reluctance to communicate and interact with others (Salem Specialist Counsellor Report, 1997-1998) and limited contact between school personnel and her parents (Salem Review Meeting, 1999-2000) (Figure 19).

![Diagram of Fatima's Inclusive Education with five variables](image)

*Figure 19. Analysis of the five variables in Case Study Three.*
7.2 Cross case analysis of the five variables

Academic performance is often used as evidence of student performance and progress at school (e.g., results from the Year 3 and Year 5 Basic Skills Tests). These three case studies are consistent with findings reported in the literature that academic achievement is only one of many factors used to assess and describe student performance at school (Afzali-Nomani, 1995; Brill et al., 1986). In the examination of the inclusive education of the three students with a hearing impairment, it was important to investigate all variables which influenced the inclusive placement (Grove & Fisher, 1999).

7.2.1 Academic Performance

In each of the case studies the students’ academic performance was an important consideration. Factors which influenced the students’ academic performance at Summerton Public School included the students’ motivation and attitude to learning, the students’ independent and organisational work skills and the students’ ability to access and satisfactorily complete activities from the class program (Appendix P). Hussein was an enthusiastic and motivated student who was anxious about his academic performance at school (Moussa School Report, 1996-1999). Mara’s attitude to learning and to the completion of her schoolwork varied from subject to subject. For instance, she was an enthusiastic student in mathematics and an uninterested student in comprehension activities (Velkovski Researcher Diary, 1998-1999). Until Fatima took responsibility for her learning (i.e., she developed appropriate independent and organisational skills) there was little improvement in her academic performance at school (Salem School Report, 1999-2000). In the completion and assessment of their class work all three students with a hearing impairment had the desire to be treated the same as peers in their class
(i.e., they wanted to complete the same work as their peers and to have their work assessed in the same manner as their peers) (Moussa, Salem & Velkovski Parent Interviews).

Data from each of the case studies also revealed the student’s parents focused on their child’s happiness and education as a ‘normal’ student at their local school, rather than their child’s academic achievements. Mrs Moussa remarked, “You know for Hussein he must feel happy the class he’s got. Otherwise he won’t work” (Moussa, 1998, p.9). During interviews for this research parents used the words ‘fine’, ‘happy,’ ‘pleased’ and ‘doing OK’ to describe their child’s academic performance. Consequently, it was not the student’s report which described the achievement of learning outcomes but rather the student’s attitude to learning and school that was important to their parents.

7.2.2 Personal/Social Performance

This research revealed that social performance was the most significant area of concern and need for the students participating in these case studies. Social performance involved the student’s personal and social skills and the student’s acceptance by their peers.

At school Hussein was keen to participate in activities and to be accepted by his peers (i.e., be one of the boys) (Moussa Researcher Diary, 1997-1999; Moussa Teacher Survey, 1998). The support and comradeship of his peers helped Hussein in all aspects of the school curriculum. His friends provided academic, physical and moral support. For instance, Hussein often completed group projects with his friends, his best friend often assisted with his Easy Listener and his close network of friends were ‘always there for him’ when he participated in sporting activities against other schools (Moussa Researcher Diary, 1997-1999).

Unlike Hussein, Mara did not have a positive self-image or have a network of supportive friends (Velkovski Meadow-Kendall results, 1998-1999; Velkovski Researcher Diary, 1998-
Mara’s low expectation of herself contributed to her lack of academic achievement and the untidy presentation of her written work (Velkovski 1st Student Interview, 1998). Because of her limited social skills and her poor hygiene Mara had difficulty making friends at school (Velkovski Meadow-Kendall results, 1998-1999; Velkovski Researcher Diary, 1998-2000). With only one close friend Mara’s academic, social and physical peer support network was limited. Without peer support personal hygiene and grooming programs implemented by her teachers failed.

After Fatima enrolled at Summerton Public School she required time to adjust and feel comfortable in her new school environment (Salem Researcher Diary, 1998-1999; Salem School Report, 1999). At her local school she was now in a class of 28 students, she received limited individual assistance from specialist personnel (e.g., her Itinerant Hearing teacher and Integration Aide) and she lacked appropriate social and independent work skills. With the support of some caring friends in her class Fatima gradually developed a positive and responsible attitude to learning at Summerton Public School (Salem Researcher Diary, 1999-2000). Her friends helped with the completion of her work and encouraged her participation in class and school activities. As a result of her participation and positive attitude to learning Fatima received the school ‘Aussie of the Month Award’. In the second year of the case study Fatima’s positive attitude to learning contributed to the improvement of her academic skills and performance at school. Whereas she previously found most mathematics activities boring and confusing she was now eager to learn her times tables and participate in the Count Me In mathematics activities (Salem Hearing Review Meeting, 2000).

In all three studies the personal and social skills of the student with a hearing impairment influenced the success of their inclusive placement. Hussein’s and Fatima’s positive attitude to
learning and to their disability had a positive impact on their education at Summerton Public School. In contrast Mara's negative attitude towards herself and her disability had an adverse effect on her education.

7.2.3 Physical/Interactional Performance

The three case studies revealed that the student's communicative and physical performance influenced their academic learning ability and their social performance with their peers. At Summerton Public School Hussein and Fatima adopted positive measures which enhanced their communication and interaction with their peers and teachers. For instance, both students accepted their disability, responded well to assistance, consistently used hearing technology and actively participated in class and school activities (Moussa Review Meeting, 1997-1999; Salem Parent Interview, 1998). In contrast to Hussein's and Fatima's positive outlook on life and education, Mara was embarrassed by her hearing disability, inconsistently and reluctantly used hearing technology and rarely participated in group and class conversations (Velkovski Hearing Review Meeting, 1995-2000). When she did contribute to conversations it was usually with a one or two-word response (Velkovski Itinerant Hearing Report, 1998-1999; Velkovski Researcher Diary, 1998-2000). Hence, there was an invisible but significant communication barrier between Mara and her peers and her teachers.

7.2.4 The School Environment

The school environment had a direct impact on the Hussein's, Mara's and Fatima's education. Critical elements in their education were positive attitudes towards the inclusive placement, knowledge of their special needs, appropriate support and collaboration.

Initially the school had little background information on the three students with a hearing impairment. Knowledge of Hussein's special medical condition, the late diagnosis of Hussein's,
Mara’s and Fatima’s hearing loss and documentation of the students’ progress at school were essential for their successful inclusive education (Best, 1998; Moussa Researcher Diary, 1998; Tindle, 1999; Velkovski Parent Interview, 1998; Wallace, 2000). This research also revealed limited knowledge of the students’ progress (i.e., academic, social and physical performance) at school. This was due to insufficient documentation or the use of jargon in school reports. Ascertaining Fatima’s needs for support was difficult because she did not have a written Individual Education Program at her previous school (Tindle, 1999). Furthermore, because of the use of educational terminology in the students’ school reports (e.g., is making good progress, a consistent and conscientious worker and is working towards Stage Three Outcomes) it was difficult to establish what the students had achieved or learnt at school (Moussa, Salem and Velkovski School Report, 1994-2000). This area of weakness in school practice was addressed by parent workshops that identified and discussed changes to the method of reporting to parents and the use of three-way interviews (i.e., student, teacher, parent interviews), to discuss the students’ school reports.

The teachers’ limited knowledge of hearing impairment and lack of training in special education were also areas of weakness highlighted in this research (Moussa, Salem, Velkovski, Teacher Survey). With the exception of the Itinerant Teacher Hearing, none of the teachers who participated in the case studies had taught a student with a hearing impairment, had received training in special education or was aware of current policy on inclusive education (Moussa, Salem, Velkovski, Teacher Survey; Moussa, Salem, Velkovski, Teacher Opinions and Perceptions of Inclusion). The study by Winter and Van Reusen (1997) found classroom teachers had minimal training in special education and were often unaware of relevant guidelines for teaching students with special needs.
Fortunately, all participants in this research (indeed all members of the school community) embraced and had a positive attitude towards Hussein’s, Mara’s and Fatima’s education. First, the principal who focused on solutions and not weaknesses shared a close and informal relationship with each of the students with a hearing impairment. When discussing Hussein’s enrolment the principal commented, “It never occurred to me that it won’t work” (Wallace, 2000, p.4). Second, teachers at Summerton Public School were prepared ‘to do whatever it would take’ to make Hussein’s, Mara’s and Fatima’s education successful. With a positive attitude and approach to the students’ inclusive placement, teachers refined and adopted strategies which enhanced the students’ education at Summerton Public School. Third, Hussein, Mara and Fatima were all happy to attend the same school as their friends and other members of their family. Finally, Hussein’s, Mara’s and Fatima’s parents were pleased that their child had the opportunity to go to school with children who lived in their neighbourhood (Moussa Review Meeting, 1993; Salem Parent Interview, 1999; Velkovski Parent Interview, 1998).

This research highlighted the need for appropriate support in Hussein’s, Mara’s and Fatima’s education. With detailed knowledge of the three hearing-impaired students members of the students’ Learning Support Team sought to find a balance between the students’ need to become an independent learner and the students’ needs to access the class program (Lynas, 1999). In the classroom, Hussein always sat in the middle block of desks with his good ear closest to the teacher and he received individual assistance for fine motor activities such as cutting and drawing activities. Hussein participated in outdoor gross motor activities with assistance from student awareness programs (e.g., students had a basic understanding of Hussein’s physical needs) and modifications to game activities (e.g., sometimes Hussein had a runner when it was his turn to bat). In supporting Mara’s special needs it was important to take
into consideration her family's cultural beliefs. Awareness of the family's beliefs (i.e., the embarrassment of her hearing impairment) made some forms of intervention inappropriate (e.g., speech therapy and the use of hearing technology during school performances). When Fatima enrolled at Summerton Public School she was reliant on adult assistance. Until Fatima developed appropriate independent work skills at school she required assistance from adults and extra time to complete her work. Because of changes in the students' personal needs and to the school curriculum, members of the Learning Support Team regularly monitored Hussein's, Mara's and Fatima's needs for support.

Findings from the three case studies revealed that a network of personnel from the school community supported Hussein's, Mara's and Fatima's inclusive education. The network included the school principal, the school counsellor, the school integration representative, the class teacher, the English as a Second Language Teacher, the Community Language teacher and the specialist Hearing Teacher. At the beginning of each case study the Itinerant Teacher Hearing was regarded as the expert in the support network. The itinerant teacher was the only member of the network (i.e., the Learning Support Team) who had specialised knowledge and training in hearing impairment (Moussa, Salem, Velkovski, Teacher Survey). Participants in all three studies soon realised it was going to take a team approach if the inclusive placement was going to be successful. This was particularly important because the itinerant teacher was only at Summerton Public School for approximately five hours each week.

In each of the case studies, it was critical for all participants involved in the inclusive process to collaborate with each other on a regular basis. During informal discussions at morning tea and lunch-time the students' ongoing concerns and progress at school were reviewed. Issues discussed during these conversations were recorded in the researcher diary. The students'
Individual Education Programs were designed and evaluated at formal meetings and programming sessions. The participation of members at the Review Meeting was monitored with the use of the Collaborative Team Scale (Appendix O). At future meetings the students’ case manager (i.e., the Itinerant Teacher Hearing) addressed areas of concern which were identified in the Collaborative Team Scale (e.g., the need to constantly monitor parent understanding at meetings and the need to establish achievable and measurable intervention goals).

Collaboration between educational and medical personnel and the students’ parents was a crucial aspect of Hussein’s, Mara’s and Fatima’s successful education at Summerton Public School. Regular communication between the students’ teachers, doctors and parents was necessary because of changes in the students’ medical condition (e.g., the deterioration in Hussein’s hearing loss), changes in the school environment (e.g., Mara’s transition to high school) and changes to family routine (e.g., Fatima’s overseas holiday).

7.2.5 Parental/Family Support

In each of the case studies the family’s non-English speaking background influenced the inclusive placement. Because of their limited understanding of English all parents in this research had difficulty understanding the implications of their child’s hearing loss and use of hearing technology (e.g., Mrs Moussa did not understand what an audiogram was, Mrs Velkovski believed her daughter’s hearing loss was only temporary, Mrs Salem did not know why her daughter was enrolled in the Hearing pre-school class). Calderon et al. (1998) and Simser (1999) reported that parents from multicultural backgrounds required assistance when discussing intervention strategies for their deaf or hard-of-hearing child.

Findings from the case studies also showed that the family’s cultural and personal values influenced the inclusive placement. Hussein’s and Fatima’s parents were pleased that their child
was accepted and supported by peers from a similar cultural background. During the first case study the principal remarked, “It is the nature of Lebanese kids they are very accepting of one of their own” (Wallace, 2000, p.3). The study by Poynting et al. (1997) reported that friendship and camaraderie were important elements of Lebanese culture. Consequently, Hussein’s and Fatima’s Lebanese culture was a positive link between their home life and their school life.

Conversely, the family’s cultural beliefs had a negative impact on Mara’s education at Summerton Public School. Mara’s hearing impairment and use of hearing technology brought embarrassment and shame to her family, especially to her mother. Because of Mrs Velkovski’s personal beliefs there has been distant and sometimes strained relationship between Mara’s mother and school personnel (Velkovski Review Meeting, 1995-2000). Since the diagnosis of Mara’s hearing impairment Mrs Velkovski has constantly denied her daughter’s hearing loss and has made numerous attempts to hide any signs of the hearing loss (Velkovski Parent Interview, 1998; Velkovski Review Meeting, 1995-2000). Regrettably Mara’s mother (who also has a significant hearing loss) believed she managed at school without technical assistance and specialist assistance and therefore so would her daughter (Velkovski Parent Interview, 1998). Over the last five years Mara has acquired her mother’s negative attitude towards her hearing impairment (Velkovski Itinerant Hearing Report, 1999-2000). Whereas Mara readily accepted the use of hearing technology when she was in Kindergarten she now refused to wear her hearing aids at school (Velkovski Itinerant Support Teacher Hearing Report, 1994 & 2000). Subsequently, as a result of Mrs Velkovski’s cultural and personal values, parental support has played a minor role in Mara’s education.

In summary, this research identified ‘visible’ and ‘invisible’ variables which influenced the success of the inclusive placement. Visible variables included the availability of resources
and specialised support, physical features of the classroom and curricular and program adaptations. Invisible variables included attitudes, commitment and collaboration. Although physical aspects of the classroom and the availability of resources influence the success of the inclusive placement (Luetke-Stahlman, 1998; Stanovich, 1999; Summerton Public School, 1997b; Wallace, 2000) crucial variables in this research were the attitudes, actions and relationships of participants who were involved in the inclusive placement (i.e., invisible variables) (Appendix P). Antia (1999) also focused on these variables in her research on inclusive education.

In the examination of the inclusive education of students’ with special needs it is crucial to stay focused on ‘the big picture.’ “We need to think of the student not on an individual basis but rather as a member of a whole class” (Ainscow, 1997, p.3). This research found it was important to focus on the individual needs of the student and on their needs as a member of the class. Evidence from each case study showed that both areas of need affected the students’ inclusive placement.
CHAPTER EIGHT

8.0 Implications, Limitations and Recommendations

8.0.1 Introduction

This research had direct implications for the participants in each of the case studies and for school policy and practice. This research also had implications for the inclusive education of students with special needs, for future classroom teachers and for future research in inclusive education.

8.1 Implications from the Study

8.1.1 Implications for the Three Students with a Hearing Impairment

These case studies enhanced the education of the three students with a hearing impairment. The studies provided access to current knowledge of the students’ physical needs, developed medical and educational support networks and encouraged closer interaction between family and school personnel. From the findings of each case study the student’s needs for support were identified and prioritised. With accurate knowledge of the student’s needs the class teacher and Itinerant Support Teacher Hearing designed intervention programs for each of the students.

8.1.2 Implications for the Parents of the Three Students with a Hearing Impairment

In each of the studies the family’s personal and cultural beliefs influenced the inclusive placement. When supporting Hussein’s, Mara’s and Fatima’s education at Summerton Public School it was necessary to ascertain the needs and concerns of their parents. In the first case study, knowledge of Mrs Moussa’s mistrust of certain medical and educational personnel was important when making decisions about her son’s inclusive placement (Moussa, 1997). In the second case study familiarity with Mrs Velkovski’s cultural and personal beliefs was essential
when discussing Mara’s use of hearing technology at school (e.g., Mara only wore her hearing aids in the classroom) (Velkovski Hearing Review Meeting, 1995-2000). In the third case study, awareness of Mrs Salem’s desire for her daughter to learn Arabic was critical when planning Fatima’s support timetable at school (e.g., itinerant and integration support sessions were scheduled around Fatima’s Community Language lessons) (Salem, 1998). Studies by Alvarez (1998) and Sass-Lehrer et al. (1995) found awareness of the parent’s beliefs promoted acceptance of the service provider and encouraged parental participation in the students’ inclusive education.

8.1.3 Implications for the School Community

Summerton Public School was a caring and understanding educational environment. In 1997, Summerton Public School received the Director-General’s School Achievement Award in recognition of their student welfare program of ‘a fair go for all.’ In each of the case studies, an accepting school community actively supported the inclusive education of the student with a hearing impairment (Moussa Researcher Diary, 1997-1999; Salem Researcher Diary, 1998-2000; Velkovski Researcher Diary, 1998-2000). The teacher’s attitude and relationship with the student and their parents had a positive impact on the student’s inclusive placement (Moussa, 1998; Salem, 2000; Velkovski, 1999; Wallace, 2000).

Data from each of the case studies also demonstrated that members of staff at Summerton Public School made decisions about the student with a hearing impairment based on insufficient knowledge and training (Wallace, 2000). Due to limited knowledge of Hussein’s current medical needs teachers often felt uncomfortable when making decisions about his participation in gross motor activities at school (Moussa Hearing Review Meeting, 1997-1999). Before this research commenced school personnel were not aware of the ramifications of Mara’s culture on her use of
hearing technology at school. When Fatima transferred to Summerton Public School her teachers had difficulty ascertaining her needs for support because of limited documentation from her previous school. Data from this research also revealed that none of the teachers who participated in the three case studies had received training in special education (Moussa, Salem, Velkovski, Teacher Survey). Insufficient training to teach students with special needs (e.g., hearing impairment) has been reported in previous research (Lass et al., 1986; Luckner & Denzin, 1998; Scruggs & Mastropieri, 1996; Villa et al., 1996). Without training in special education, teachers in each of the case studies relied heavily on the support of specialist personnel. Unfortunately the Itinerant Teacher Hearing was only at Summerton Public School for a limited time each week.

Successful inclusion requires commitment from all members of the school community (Federico et al., 1999). Positive attitudes, accurate knowledge, active participation and ownership of policy promote commitment among school personnel (Cook et al., 1999; Westwood, 1997). In each case study participants were prepared, “to do whatever it took to make it (the inclusive placement) work” (Salem Researcher Diary, 1999, p.24). Despite their enthusiasm, teachers revealed in this research that they had queries about the inclusive process and placement. Teachers queried, “What’s an IEP? Am I expected at the meeting? What am I supposed to? What happens if it doesn’t work?” (Moussa, Salem and Velkovski Researcher Diary, 1997-2000). The school Integration Policy did not resolve the teachers’ dilemma because the policy only referred to the re-integration of students from the special education classes at Summerton Public School (Summerton Public School, 1997-2000). Teachers who participated in the three case studies also disclosed that they had minimal knowledge of NSW Department of Education and Training policy on inclusive education (Moussa, Salem & Velkovski, Teacher Opinions and Perceptions of Inclusion). Winter and Van Reusen (1997) reported that classroom teachers were often
unaware of recommended guidelines for teaching students with special needs. In order for teachers to embrace the practice of inclusion at Summerton Public School they require knowledge of current educational policy/practice on inclusion and they need to develop an appropriate school inclusion policy.

8.1.4 Implications for the Researcher

As a result of this research, the researcher developed professionally as a teacher and as a researcher. The researcher, in her role as an Itinerant Support Teacher Hearing, now employs skills and strategies acquired during this research in her teaching. From the school principal the researcher learnt the value of positive thinking and being pro-active in the education of students with special needs. The principal demonstrated “it (successful inclusion) was about making things happen and not simply waiting for things to happen” (Wallace, 2000, p.3).

After numerous interviews and discussions with participants in this research the researcher acquired a range of interpersonal and conversational skills (for adults and children). When discussing Hussein’s, Mara’s and Fatima’s special needs and education at Summerton Public School the researcher learnt there were times to respond, times to listen, times to act and times to move on. Moustakas (1990) commented, “In heuristic interviewing, the data generated is dependent upon accurate, empathic listening” (p.48).

Knowledge acquired during this research helped the researcher understand and support other students who were on her itinerant caseload. Because most students on the itinerant teacher’s caseload came from Lebanese and Macedonian backgrounds, knowledge about these cultures (i.e., the impact of the hearing disability on learning and on the family) was helpful when discussing intervention strategies for other students on itinerant caseload.
Throughout this research the researcher witnessed the benefit of teamwork and collaboration. Over the period of this research the researcher liaised with a variety of people (e.g., medical specialists and service providers; personnel from the NSW Department of Education and Training, delegates at the International Congress on Education of the Deaf and research colleagues based in Australia and the United States). During conversations with educational, medical and research personnel the researcher discussed the conduct and findings from the three case studies, talked about the possibility of future research projects (e.g., a medical/educational study of the first ten years of Hussein's life) and established educational, medical and research support networks in Australia and the United States. These relationships enhanced the findings from this research (i.e., the validity and reliability of data collection and analysis) and provided inspiration for future research studies.

8.1.5 Implications for the Inclusive Education of Students with Special Needs, including those Students with a Hearing Impairment

Due to the heterogeneity of the deaf and hard-of-hearing population, it is impossible to create a typical student profile (Goldberg, 1999). This statement is true for all students with a disability (i.e., who have special learning, social and physical needs). Knowledge of the student's background (i.e., medical history and previous educational performance) and awareness of appropriate intervention strategies are essential for the successful inclusive education of students with special needs (Burnip, 1993; Jaussi, 1991).

8.1.6 Implications for Future Classroom Teachers

Each year an increasing number of students with special needs are being educated in regular classrooms (Senior Education Officer NSW Department of Education and Training, personal communication, March 8, 2000). Evidence from this research showed that most
teachers do not have the necessary knowledge and training in special education to teach special needs students who are enrolled in their class (e.g., knowledge of different disabilities and awareness of appropriate intervention strategies). As disabilities, including hearing impairment, are not limited to one culture, future teachers would also benefit from knowledge of the impact of various cultures on a family's outlook on life. Knowledge of a family's cultural beliefs was helpful in understanding the actions of family members in this research. Furthermore, this research revealed that teachers often lacked experience in consulting and collaborating. In the successful inclusive education of students with special needs it is crucial that these areas of weakness are addressed.

8.1.7 Implications for Future Research

This investigation of the inclusive education of three students with a hearing impairment is one example of the current practice of inclusive education. Findings from this research can be used as data for future studies on inclusive education. Data from this research can also be used in future medical research. The possibility of a medical/educational study of the first ten years of Hussein's life has been discussed by the researcher and Hussein's dermatologist.

8.2 Limitations of the Study

8.2.1 Size, Design and Audience of Research

The size, design and prospective audience of these studies could be viewed as limitations of this research. The purpose of this research was not to analyse inclusive education but rather to explore the inclusive placement of three students with a hearing impairment (Evans, 1998; Grove & Fisher, 1999; Richardson et al., 1996). Understandings from this research were developed from data collected in the three case studies (Stake, 1995). The audience for this research includes the participants in the study, the University of Western Sydney (Faculty of
Education/Research Department), the NSW Department of Education and Training and other Hearing Support Teachers. A wider audience for this research would include the teaching profession, educational policy makers and other researchers.

8.2.2 Impact of the Researcher

Researcher subjectivity and bias could be viewed as another limitation in this research. In each case study research strategies were adopted which minimised the effect of the researcher. These strategies included prolonged engagement, persistent observation, triangulation of data collection and analysis, member checks and data cross-examination (Harry, 1996; Richards, 1997; Stake, 1995).

8.3 Recommendations from the Study

8.3.1 Recommendations for the School Environment

Government policy ensures all students receive a mostly free and appropriate education (Australian Attorney General’s Department, 1992; NSW Department of Education and Training, 1999c). Government policies are put into practice with the development of structures and practices within the particular learning community in schools (Zollers et al., 1999). Knowledge of government and school policy on inclusion promotes positive attitudes towards the inclusive placement and encourages ownership (Buell et al., 1999; NSW Department of Education and Training, 1999b; Opdal et al., 2001). Teachers who participated in this research had neither understanding nor ownership of policy on inclusive education. Teachers were not aware of government policy on inclusion and the school policy on inclusion was inappropriate because it did not refer to students with special needs who were enrolled in a regular class. Winter and Van Reusen (1997) found that teachers had insufficient knowledge of government policies and guidelines on inclusive education.
Consequently teachers at Summerton Public School need staff development on government policy on inclusive education (Buell et al., 1999). With knowledge of government policy, members of staff at Summerton Public School could then develop a school policy which included all students with special needs who were enrolled at the school.

This research revealed that school personnel at Summerton Public School required a basic understanding of hearing loss and training in special education and collaboration. Luckner (1991a) reported that general education teachers had never received training in hearing impairment. Luckner (1991c) and Luckner (1991d) discussed skills and competencies needed for teaching students with a hearing impairment. Although successful inclusion involves collaborative planning and teamwork, few teachers have received training in collaboration and consultation (Villa et al., 1996). Studies by Mukherjee et al. (2000) and Reese (1995) found that knowledge and the use of appropriate strategies promoted positive attitudes and relationships towards the inclusive placement.

### 8.3.2 Recommendations for the NSW Department of Education and Training

In 1997 Summerton Public School received the *Director-General's School Achievement Award* in recognition of the school’s student welfare program and in ‘providing a fair go for all.’ With limited resources teachers at Summerton Public School provided ‘the best possible learning experiences for the children in their care’ (Summerton Public School, 1997b). Evidence from this research showed the availability of resources influenced the teachers’ attitudes toward the inclusive placement. In the words of the school principal, “a lot has gone on with goodwill, and goodwill is wearing thin” (Wallace, 2000). Findings from this research also revealed the gradual removal of resources from successful inclusive programs at Summerton Public School (e.g., Hussein’s and Fatima’s integration aide time). Resources were withdrawn on the basis of the
student’s satisfactory performance at school. Assistance from the integration aide was a vital aspect of Hussein’s and Fatima’s successful inclusive education. The students’ successful performance should have been sufficient reason for the retention of these resources.
CHAPTER NINE

9.0 The Hidden Case Study

9.0.1 Introduction

From the beginning of the first case study I felt as if I was going on a special journey, as a researcher and as a teacher. Many times in my research I felt like two different people. In my diary for the first case study I wrote, "I am amazed at how often I seem to have the voice and thoughts of another person inside me. It's like I am two people. It really helps me get a different perspective on things" (Moussa Researcher Diary, 1998, p.13). My special research journey took me through a number of stages. These stages involved an introduction to my research, an exploration of current knowledge in my area of interest and the collection, analysis and presentation of findings from my case studies. The final destination in my research voyage was the submission of my study. In heuristic research Moustakas (1990) noted that researchers progressed through six phases (i.e., initial engagement, immersion, incubation, illumination, explication and creative synthesis).

9.1 Journey of the Researcher

Although it was only three years since the completion of my Master of Education, it was important for me to refresh my research skills. Consequently, in the first year of my doctoral studies I completed Research Methods in Education I and II at the University of Western Sydney. This updated my qualitative research skills, developed my Library information skills, refined my computer and technology skills, helped me focus on the topic of my research and introduced me to members of staff and fellow research students at the University of Western Sydney. With the completion of the research subjects I felt prepared and excited to commence my studies.
I soon learnt there would be good times and not so good times during my research. In the following two semesters of my studies my enthusiasm and excitement was constantly tested. During this time when I sought official approval for my studies I often felt manipulated by other people's personal agendas. With a strong passion to complete my research on inclusive education and with the extraordinary support of my supervisors I tried to think of alternative ways to approach my research. After much thought and after numerous conversations with personnel from the NSW Department of Education and Training and the University of Western Sydney Ethics Committee, approval for my research was granted from both institutions.

When the requirements of both institutions had been fulfilled it was with some relief that I moved on to the next stage of my research. In the second stage of my journey I began reviewing literature in my area of interest (i.e., the inclusive education of students with a hearing impairment). Following advice from my qualitative research lecturer I established a reading log system using 8" x 5" index cards. This recording system was a valuable tool in my research. The necessity for an effective data storage system was highlighted by Stake (1995). Because I reviewed literature relevant to my studies until the final submission of my thesis this second stage was an on-going part of my research journey.

With current knowledge of research in inclusive education I designed an instrument to examine the education of the three students with a hearing impairment in my case studies (Appendix A). At this time I constantly reflected on the roles of all participants in my research journey. First, I examined the role I was going to play in each case study. It was vital that my thoughts and actions did not influence the attitudes and responses of participants in my research. Glesne and Peshkin (1992) reported the need to understand rather than eliminate the role of the researcher. Second, it was essential that all participants understood the purpose of my research
and that they felt comfortable with their involvement in the case study. Consideration of the participants is an important aspect of qualitative research (Richardson et al., 1996). Third, it was essential that I kept in regular contact with my research supervisors. During these interactive sessions my supervisors provided assistance with all aspects of my study. Reflection, discussion and analysis are features of qualitative research (Evans, 1998; Miles & Huberman, 1994; Richards, 1997; Stake, 1995) Finally, as my study took much of my personal free time, my husband and children became active non-participants in my research. Without their moral and practical support it would have been impossible to complete this project.

9.1.1 Into the Field for the First Time

My first few days out in the field felt quite strange because I had been preparing for this part of my journey for such a long time (e.g., the completion of university subjects, the search for approval, the search for knowledge on inclusive education, writing and gaining approval for my Research Proposal). In the field I witnessed attitudes and practices which I had read about in literature (e.g., the impact of the teacher's attitude on the success of the inclusive placement). On my research journey I also found discrepancies between what I had read and what was happening in the field (i.e., the school environment). For instance, I found in the field that teachers had insufficient time to effectively plan and implement Hussein's Individual Education Program yet we are informed in the literature that inclusion is a deliberate policy which should only be implemented if it is done well (Arthur, 1994; Brownley, 1987; Haworth, 2000; O'Neil, 1995).

When I had finished collecting data for my case study I entered the next stage of my journey (i.e., the discussion and analysis of findings). With honesty, this stage commenced when I began collecting data for the first case study and continued until the final submission of my thesis. The practice of reflecting upon the research goal (questions) whilst collecting data was
reported by Bogden and Biklen (1992). As I teased out and examined emerging themes from my data I felt I was in another world looking down on my study (i.e., I was examining Hussein’s education at Summerton Public School from a distance). In the analysis of qualitative data Richards (1997) referred to the process of exploring, teasing out andlevering up out of data a higher level of abstraction.

After numerous conversations with my supervisors I entered the final phase of my journey in the first case study (i.e., the written presentation). The written presentation included Hussein’s case history, information about the school environment and a discussion of the variables which influenced his inclusive placement. Throughout the written presentation of my first case study (and subsequent studies) the voice of participants can be heard (e.g., quotations from interviews, meetings and discussions). Acknowledgement of the role and voice of participants is a crucial aspect of qualitative research (i.e., enhances the trustworthiness of data collected) (Vaughn & Kinger, 1998; Wolfendale, 1999). Consequently, with detailed knowledge of Hussein’s inclusive placement the reader can make personal generalisations about the case (McWilliam, 2000; Stake, 1995).

9.1.2 The Beginning of a New Study

With knowledge and experience from the first case study I looked forward to the next case study. Having decided on the conduct and management of my research I was not intimidated by the writing up stage of the second study. In contrast to the first case study when I made excuses not to start writing, in my second case study the writing stage occurred as a matter of natural progression. Glesne and Peshkin (1992) noted that researchers often made excuses not to start writing. At this time I also decided it was important to present findings of my research visually. These visual representations highlighted variables which had the biggest impact on the
student's education at Summerton Public School. I believe the use of visual and verbal representations 'maximised the reader's understanding of the case' (i.e., helped the reader understand findings from this research) (Stake, 1995).

With my studies now in progress it was important 'to stake a claim for my research' (i.e., to publicise my studies). Following advice and encouragement from my supervisors I participated in the poster presentations at the 19th International Congress of the Deaf, which was held at the Sydney Convention Centre in July 2000. In my quest to make a realistic and interesting presentation I used captioned photos and a variable analysis table. In accordance with research protocol I obtained written authorisation from all participants who were involved in the photos, including the NSW Director General of Education and Training. The inclusion of the Director General's photograph gave increased credibility to my research and to my poster presentation. The poster presentation also revealed the necessity to follow research protocol during the conduct of my studies (Clandinin & Connelly, 1994; Hitchcock & Hughes, 1989).

Feeling apprehensive about the thought of discussing my research with such a well credentialed, international audience (i.e., over a thousand people from many different countries and cultures attended the conference) I was grateful for the support of my supervisors, my family and my work colleagues. These people helped me with the physical logistics of creating, transporting and displaying my poster. They also supported me mentally and emotionally. With their encouraging words they helped me believe in myself as a researcher and presenter. During my poster session I felt quite at ease when I discussed my research project with other conference participants. By the final day of the conference I had liaised with a number of people who shared my interest in the inclusive education of deaf students (e.g., Professor Shirin Antia from the
University of Arizona, USA and Professor Michael Stinson from the National Technical Institute for the Deaf, USA).

9.1.3 The Final Study

With the euphoria of my poster presentation now behind me I ventured on to my third and final case study. Once again I required background data in key areas related to this case study (e.g., autosomal hearing loss and babies with a hearing loss and the development of normal speech). Knowledge in these areas helped me understand the implications of Fatima’s hearing loss on her education, personal development (e.g., speech) and family life (e.g., parental acceptance).

When Fatima enrolled at Summerton Public School ascertaining her needs for support was difficult because of limited documentation from her previous school (e.g., Fatima did not have an Individual Education Program at her former school). Yet in the literature we are told that inclusion is based on careful assessment of the needs of individual children (Feiler & Gibson, 1999). Although there is no one best way to support a deaf child in a regular class (Lynas, 1999) teachers at her local school required knowledge of Fatima’s academic, social and physical performance at her previous school. Findings from this case study provided her teachers with this knowledge.

With accurate knowledge of Fatima’s special needs I had the opportunity to make a difference in her education (NSW Department of Education and Training, 1997-1999). In supporting her education at Summerton Public School I used skills and knowledge which I had acquired in my studies. Despite being labelled the expert (because of knowledge from my studies) I was pleased to work as a member of her Learning Support Team. As a team we combined our expertise to address Fatima’s learning needs at Summerton Public School. Yarger
and Luckner (1999) reported that each member of the team ‘is an expert in some facet.’

In the final stage of the third case study I also liaised and received assistance from personnel at the local district office (NSW Department of Education and Training) and from the Special Education Directorate (NSW Department of Education and Training). Despite their busy schedules representatives from these offices provided me with current statistics for my research. After these communications the representative from Special Education Directorate inquired if my abstract from the International Conference could be included in the Hearing Impairment Compendium 2001. Promptly I agreed with this request. I believe a close working relationship between the school community and personnel in the NSW Department of Education and Training is crucial in the successful education of students with special needs. The study by Arthur (1994) reported the distance between administrative bodies and school communities influenced the success of the educational strategy.

9.1.4 Bringing it Together

On the completion of the third study I explored and compared understandings from each of my case studies. I also investigated the interaction of understandings in my research (e.g., time and teacher attitude). With intimate and detailed knowledge of the students who participated in my case studies I constantly thought about the impact of the five variables on Hussein’s, Mara’s and Fatima’s education at Summerton Public School. During this time of reflection I had numerous discussions with my supervisors. In these sessions I vocalised and justified my thoughts, considered alternate viewpoints and received practical and moral support. After this time of reflection and debate I was ready for the final stage of my research journey.
9.1.5 The Written Presentation

The written presentation of my studies represented the final stage of my research journey. After much reflection and time in front of the computer I completed written draft copies of my three case studies. These chapters were revised and refined until my supervisors and myself were pleased with their final presentation. Following the time-line described in my research proposal I then wrote the other chapters in my thesis. The only chapter (and yet perhaps one of the most important chapters) not described in the proposal was the final chapter, the journey of the researcher. At this tedious and demanding time, my research proposal helped me with the structure and presentation of my studies. After numerous discussions and written drafts my thesis was ready for submission. The examination of my thesis represented the conclusion of my research journey.

9.2 Time for Reflection

During my studies I often thought about my relationship with the students (i.e., Hussein, Mara and Fatima), my interactions with their parents and the effectiveness of my teaching. Data in each of the case studies revealed the need for a close working relationship between teachers and students. Despite this need, teachers have developed strategies which distance and impersonalise their relationship with students. For instance, in teaching we use labels to classify students (e.g., the student with a hearing impairment), we talk in terms of strategies and outcomes (e.g., working towards stage three outcomes) and our primary focus is the student’s academic performance (e.g., band three results for literacy). In addition, because of the numerous demands placed on teachers we often get immersed in paperwork and forget the real reason why we chose to be teachers. At the conclusion of my studies I decided that a positive working relationship with my students was a priority in my role as an Itinerant Support Teacher Hearing.
During my research I also found consultative and collaboration training would be helpful in my role as an itinerant teacher. When discussing sensitive issues associated with Hussein’s, Mara’s and Fatima’s hearing loss I often wished I had received training in consultation and collaboration. With no training in either area I relied on advice and assistance from the school counsellor, who was an excellent mentor and colleague.

Finally, using data from my studies I could accurately ascertain and address Hussein’s, Mara’s and Fatima’s needs for support. Many times in my research I wondered ‘if only I had time to collect background data for other students who were on my itinerant caseload.’ Scruggs and Mastropieri (1996) found teachers often had insufficient time to address the many demands of their profession. In the spirit of positive thinking, at least other students on my itinerant caseload would benefit from skills and strategies which I acquired during my studies.

9.3 Coda

In educational research we are encouraged to step-back from our studies and reflect on the whole experience (Bruner, 1999; Grove & Fisher, 1999). From my research I have come to understand that some things will remain the same in the student’s inclusive placement (e.g., positive teacher attitudes) and some things will need to change (e.g., the school Integration Policy). I have also come to understand and accept that some times change is impossible (e.g., a mother’s attitude toward her daughter’s hearing loss and use of hearing technology). Furthermore, since there are no guarantees in inclusion, I now understand that school personnel can promote but not guarantee the student’s successful inclusive placement. My research gave ample evidence that innovative programs at the school had little chance of success without parental and student support.
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APPENDICES

APPENDIX A: Measures and Procedures used in this Research
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APPENDIX C: Teacher Survey
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APPENDIX A: Measures and Procedures used in this Research

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<td>Integration Rating Guide</td>
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<td>Student Interview</td>
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<td>Parent Interview</td>
<td>Appendix M/N (Meadow-Orlans et al., 1997)</td>
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APPENDIX B: Observation Guide for Mainstreaming Case Studies
(Bogdan & Biklen, 1992)

DESCRIPTION OF SCHOOL
- Physical
- Location
- Historical
- Student Population
- Teachers
- Special Distinctions

THE CLASS
- Location in the School
- Physical description of class
- Organisation
- Grade

THE TEACHER
- Teaching experience
- Style
- Perspective on inclusion
- Relationship with children
- Additional personnel in room

CASE STUDY STUDENT
- Physical description
- Physical location in class
- Peer relations
- How teacher defines child’s progress

STUDENTS IN CLASS
- Physical description
- Academic description
- How they get along with each other and the teacher

CURRICULUM
- Process – whole group, small group, 1-1
- Content - materials used, adaptive equipment, individualised

PARENTS
- Teacher contact with parents
- Involvement in inclusive placement
- Input into class/child’s program
- Perspective on inclusion

PRINCIPAL/SCHOOL PERSONNEL
- Part/relationship in the program
- Support strategies
APPENDIX C: Teacher Survey

Dear fantastic teachers,
Could you please help me with the following information for my studies.
Thankyou once again for your help
Helen Carter

1. Employment and teaching qualifications (General/special education)

2. Years experience:

3. Previous schools

4. Grades taught

5. Teaching style (e.g., whole group, small group, 1-1)

6. Programming – (Grade/class- materials used, adaptive equipment, individualised)

7. Evaluation (Method, how teacher defines progress)

8. Additional personnel in the room (support available for the student with a hearing impairment)

9. Physical description of the class (Number of boys & girls, ethnic background, academic description of class)

10. Peer relations (how well does the student with a hearing impairment get along with their peers; words peers use to describe the student with a hearing impairment)
APPENDIX D: Program Modifications (Luetke-Stahlman, 1996)

Mode Flow of Communication
Make sure each child has access to all activities.
Provide adequate, appropriate interpreting as needed (oral, cued speech, manual)
Assess the dominant language system, consider any needed alternatives
Specify language levels for use of written English, spoken English, ASL instruction.
Set up an effective method for communication between teachers, interpreters

Mediated/Scaffolded Instruction
Related new and previously learned information
Engaged in reciprocal teaching dialogue
Use a variety of quotation prompts
Engage in active problem solving
Teach strategies for acquiring/rememorising information

School Environment
Establish an ideal listening environment:
- Provide FM equipment as needed
- Provide quiet rooms without distracting noise
Modify the physical environment
- Use sound-deadening carpets, window treatments
- Install visual alarms
Classroom Seating:
Make sure students have clear sight lines to teacher, interpreter, blackboard, other students. If possible, arrange desks in horseshoe configuration.

Learning centres:
Provide access to computers, TTYs, visual and written material via captioning, interpretation, etc.
Offer all students ways to experience Deaf Culture
Other:

Lesson Planning
Analyse tasks to determine levels of difficulty
Teach study skills, use assignment notebooks
Utilise effective instruction styles, guided practice
Divide work into small units
Pace instruction to meet all students' needs

Language Behaviours
Consider volume and rate of speaking voice
Present instruction two to four times
Avoid meaningless hand movements
Pair common phrases with figurative English
Use synonyms for words perceived as difficult
Ask analytical questions

Support Structure
Hire additional personnel/paraprofessionals as indicated: ___ Interpreters ___ Notetakers
Set up a buddy system with classmate participation
Offer tutoring
Establish a resource room
Other:

Materials
Provide study guides, assignments in writing
Clarify instruction through writing, demonstration
Read aloud or sign important information rather than relying on student reading
Rewrite materials as needed for clarity
Highlight essential information
Provide duplicate sets of materials for family use

Testing/Grading
Schedule frequent mini-tests to track progress
Provide alternate test response modes if needed
Consider offering signed videotaped tests
Provide extra time for students who are familiar with course content but need help with test language
Consider alternative grading methods:
Curriculum-based tests
Criteria-referenced tests
Self-referenced tests
Pass/fail options
Provide daily/weekly reports for feedback
Chart ongoing progress, or lack of progress

Instructional Formals
Plan thematic instruction across the curriculum
Encourage small group interaction
Structure cooperative learning activities
Emphasise visual and language-based learning
Use graphic organisers for classroom work
Provide relevant information to support learning
Pay attention to individual learning styles (global, analytical, etc.)
Other:
**APPENDIX E: Diary Proforma for the Researcher**

<table>
<thead>
<tr>
<th>Date</th>
<th>Teacher, Student &amp; Parent Consultation &amp; Comments</th>
<th>Researcher Observations School &amp; Classroom, Curriculum, Teaching Strategies</th>
<th>Relationship to Research Questions 1 2 3 4 5 6 7</th>
<th>Researcher Comments</th>
</tr>
</thead>
</table>

**APPENDIX F: Diary Proforma for the Student**

<table>
<thead>
<tr>
<th></th>
<th>What did you do today?</th>
<th>How did you feel?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monday</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thursday</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saturday</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**APPENDIX G: Opinions & Perceptions of Regular Education Teachers**  
(Ringlaben & Price, 1981)

<table>
<thead>
<tr>
<th>Questionnaire Item</th>
<th>Know very little</th>
<th>Know a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Knowledge of N.S.W. Department of Education &amp; Training policy on inclusion</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. Preparation for implementing inclusion in your classroom</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. Willingness to accept special needs students (e.g., students with a hearing impairment) in your classroom</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. Ability to teach students with a hearing impairment</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. Ability to be open-minded and flexible when working with others</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX II: Mainstream Placement Checklist (Nix, 1977)

Instruction to the teacher
This check sheet has been compiled to examine the major parameters which contribute to the successful inclusion of students with hearing impairment. Will you please mark the ones that apply to the student with a hearing impairment in your class?

CHILD PARAMETERS

_____ Average or better learning rate
_____ Able to comprehend oral directions
_____ Able to read and follow written directions
_____ Capacity to work independently
_____ Willingness to ask question for clarification
_____ Capable of following large group discussions
_____ Cooperative in completing small group tasks when assigned
_____ Capable of completing homework assignments
_____ Listening age minimally disparate from hearing peers
_____ Linguistic age comparable to placement considered
_____ Social development comparable to the placement considered
_____ Emotional development comparable to placement considered
_____ Physical development within a normal range for the placement considered
_____ Reading level comparable to the hearing children in placement
_____ Academic skills within one grade level of the considered placement
_____ Average or better in intelligence
_____ Resilient nature
_____ Consistent use of appropriate amplification
_____ Average or better in self-control
_____ Ability to adapt to new situational demands, schedule changes, etc.
_____ Academic competitiveness
_____ Relates well to adults
_____ Relates well to hearing peers
_____ Wants to be mainstreamed
_____ Average ability to handle abstract concepts
_____ Sufficient speech intelligibility to be understood by hearing peers
_____ Sufficient speech intelligibility to be understood by regular class teacher
_____ Ability to receptively decode speech
_____ Writes legibly
PLACEMENT SITUATION PARAMETERS

___ Size of the receiving class
___ Desire of the regular class teacher and location of the classroom (next to hall?)
___ Individualised programming in the receiving classroom
___ Small reading groups
___ Teaching style(s) of the regular class teacher(s)
___ Availability of a teacher of the hearing-impaired to monitor the placement
___ Orientation to hearing impairment available to regular class and teacher
___ Supportive administration
___ Teacher aide available for assistance
___ Availability of varied resource specialists - speech pathologist, audiologists, etc.
___ Preferential seating possible
___ Regular class teacher willing to use captioned films
___ Regular class teacher adapts classroom resources for orally presented material
___ Regular class teacher willing to work closely with parents of the hearing-impaired child and the various support and resource specialists
___ Can the child get an equal or better education in the class than in the other possible placement alternatives

FAMILY PARAMETERS

___ Stable home environment
___ Parents’ desire to have one child mainstreamed
___ Parents’ desire to assist the hearing mainstreamed
___ Parents’ acceptance of the child’s disability
___ Parents’ desire to work closely with the regular class teacher
### APPENDIX I: Integration Rating Guide (Bunch, 1987)
Could you please circle the appropriate level for your student with a hearing impairment

<table>
<thead>
<tr>
<th>RATING AREA</th>
<th>RATING POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Top 25%</td>
</tr>
<tr>
<td><strong>LANGUAGE ARTS</strong></td>
<td></td>
</tr>
<tr>
<td>a. Vocabulary</td>
<td>15</td>
</tr>
<tr>
<td>b. Reading (Comprehension)</td>
<td>15</td>
</tr>
<tr>
<td>c. General Reading/Language</td>
<td>15</td>
</tr>
<tr>
<td>d. Language Structure</td>
<td>15</td>
</tr>
<tr>
<td>e. Spelling</td>
<td>15</td>
</tr>
<tr>
<td><strong>COMMUNICATION</strong></td>
<td></td>
</tr>
<tr>
<td>a. Speech</td>
<td>10</td>
</tr>
<tr>
<td>b. Speech reading</td>
<td>10</td>
</tr>
<tr>
<td>c. Speech reception</td>
<td>10</td>
</tr>
<tr>
<td>d. Attentiveness</td>
<td>10</td>
</tr>
<tr>
<td><strong>SUBJECT ACHIEVEMENT</strong></td>
<td></td>
</tr>
<tr>
<td>a. Mathematical Computation</td>
<td>6</td>
</tr>
<tr>
<td>b. Mathematical Concepts</td>
<td>6</td>
</tr>
<tr>
<td>c. Mathematical Applications</td>
<td>6</td>
</tr>
<tr>
<td>d. Science</td>
<td>6</td>
</tr>
<tr>
<td>e. H.S.I.E.</td>
<td>6</td>
</tr>
<tr>
<td><strong>INTELLECTUAL POTENTIAL</strong></td>
<td></td>
</tr>
<tr>
<td>a. Verbal Intelligence</td>
<td>10</td>
</tr>
<tr>
<td>b. Performance Intelligence</td>
<td>10</td>
</tr>
</tbody>
</table>

### SOCIALISATION RATING GUIDE

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>RATING POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Top 25%</td>
</tr>
<tr>
<td>1. Strong self concept</td>
<td>4</td>
</tr>
<tr>
<td>2. Able to accept criticism</td>
<td>4</td>
</tr>
<tr>
<td>3. Makes appropriate decisions</td>
<td>4</td>
</tr>
<tr>
<td>4. Has own ideas</td>
<td>4</td>
</tr>
<tr>
<td>5. Encouraged by success</td>
<td>4</td>
</tr>
<tr>
<td>6. Pays close attention</td>
<td>4</td>
</tr>
<tr>
<td>7. On time with assignments</td>
<td>4</td>
</tr>
<tr>
<td>8. Careful with details</td>
<td>4</td>
</tr>
<tr>
<td>9. Work is organised</td>
<td>4</td>
</tr>
<tr>
<td>10. Able to draw conclusions</td>
<td>4</td>
</tr>
<tr>
<td>11. Able to generalise</td>
<td>4</td>
</tr>
<tr>
<td>12. Personable</td>
<td>4</td>
</tr>
<tr>
<td>14. Active participator</td>
<td>4</td>
</tr>
<tr>
<td>15. Thoughtful of others</td>
<td>4</td>
</tr>
</tbody>
</table>
## PARENTAL SUPPORT GUIDE

<table>
<thead>
<tr>
<th>Considerations</th>
<th>RATING POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Top 25%</td>
</tr>
<tr>
<td>1. Home language is English</td>
<td>4</td>
</tr>
<tr>
<td>2. Ensure that homework is done</td>
<td>4</td>
</tr>
<tr>
<td>3. Assist with homework</td>
<td>4</td>
</tr>
<tr>
<td>4. Stimulate conversation</td>
<td>4</td>
</tr>
<tr>
<td>5. Expand vocabulary</td>
<td>4</td>
</tr>
<tr>
<td>6. Encourage community activity</td>
<td>4</td>
</tr>
<tr>
<td>7. Consult with teachers</td>
<td>4</td>
</tr>
<tr>
<td>8. Maintain hearing aids/listening devices</td>
<td>4</td>
</tr>
<tr>
<td>9. Encourage reading</td>
<td>4</td>
</tr>
<tr>
<td>10. Maintain a positive point of view</td>
<td>4</td>
</tr>
</tbody>
</table>
Integration Rating Guide Summary

NAME:  
GRADE:  
DATE:  
DATE OF BIRTH:  
SCHOOL:  
TEACHER:  
SEX:  
AGE:  

RATING SUMMARY

Integration Success points

1. Language arts  
2. Communication  
3. Subject Achievement  
4. Intellectual Potential  
5. Socialisation  
6. Parental Support  

Integration Support Points

Language Arts of 75
Communication of 40

Integration Support Points Total of 115

Integration Success Points Total of 215

INTEGRATION SUCCESS RATING

Score Range  
150 to 215  
100 to 149  
50 to 99  
0 to 49

Rating  
High  
Acceptable  
Slender  
Nil

Implication

Should succeed in all subjects with relatively minimal difficulty
Should obtain passing grades with recommended level of support
Academic success will be limited even with recommended levels of support. Key subjects must be the responsibility of a teacher of hearing impaired
Integration is for other than academic reasons

INTEGRATION SUCCESS RATING

Score Range  
99 to 115  
84 to 98  
69 to 83  
0 to 68

Rating  
Level I  
Level II  
Level III  
Level IV

Implication

Complete integration with consultative support by a teacher of the hearing impaired
Complete integration but with teacher of the hearing impaired support on a regular basis
Integration for most subjects with teacher of hearing impaired instruction for key subjects
Integration for selected subjects with full-time instruction in a class for hearing impaired students
APPENDIX J: Meadow-Kendall Social-Emotional School-Age Assessment Inventory
(Meadow, 1983)

NAME: ............................................. D.O.B.: .................................
SCHOOL: ........................................... GRADE: .................................
DATE of ADMINISTRATION: .................................................................
CODE: T = VERY GOOD; t = true; f = false; F = VERY FALSE; ? = can’t rate

1. Obeys the rules, follows instructions or requests from adults 
   T t f F ?
2. Kind and considerate
   T t f F ?
3. Relates well to peers and is accepted by them
   T t f F ?
4. Distinguishes between fact & fiction, real & imaginary, events
   &/or people (understands that Superman doesn’t really exist)
   T t f F ?
5. Aggressive behaviour may include fighting
   T t f F ?
6. Demonstrates negative feelings about physical size &/or strength
   T t f F ?
7. Takes pride in physical appearance/personal attractiveness
   T t f F ?
8. Engages in strange behaviour
   T t f F ?
9. Has a generally acceptable emotional response.
   T t f F ?
10. Has many fears
    T t f F ?
11. Accepts some delay in gratification.
    T t f F ?
12. Isolated has few or no friends. May be considered withdrawn
    T t f F ?
13. Lacks competence with equipment
    T t f F ?
14. Teases or annoys other students
    T t f F ?
15. Shows initiative/motivated to finish work
    T t f F ?
16. Tries to communicate with others by any means
    T t f F ?
17. Takes responsibility for their share of tasks
    T t f F ?
18. Insists on routine. Changes to routine cause negative responses
    T t f F ?
19. Self-reliant not overtly dependent on others for help
    T t f F ?
20. Performs co-operatively in group of peers
    T t f F ?
21. Overtly concerned with cleanliness
    T t f F ?
22. Shows great concern with minute details
    T t f F ?
23. Happy, cheerful, pleasant, easy-going
    T t f F ?
24. Gives up quickly, expects to fail
    T t f F ?
25. Complains of physical ailments (no apparent medical basis)
    T t f F ?
26. Identifies with a person who wears a hearing aid
    T t f F ?
27. Engages in destructive behaviour
    T t f F ?
28. Relates well to adults
    T t f F ?
29. Trustworthy, dependable, reliable
    T t f F ?
30. Anxious, nervous, worries about commonplace things
    T t f F ?
31. Demonstrates negative attitude towards sign language
    T t f F ?
32. Misbehaviour not deterred by the threat of punishment.
    T t f F ?
33. Creative. Shows imagination in school & play activities
    T t f F ?
34. Lethargic, lacks energy, always tired
35. Fails to accept criticism especially if it is expressed as discipline
36. Demonstrates negative feelings about own motor skills
37. Demands attention, must be the centre of attention
38. Shows positive responses to a person using signs
39. Has many accidents/mishaps resulting in breakages
40. Seems to understand the feelings of others
41. Tries to understand others by any means e.g. listening, gestures
42. Curious, eager to learn knew things
43. Responds poorly to losing in games or failing to achieve in class
44. Daydreams. Tunes out events in immediate environment
45. Accepts differences in other people
46. Has habits/mannerisms considered rude/socially unacceptable
47. Participates in classroom group activities/volunteers answers
48. Doesn’t try to copy classmates work/take belonging of others
49. Other students look to this student as a leader
50. Demonstrates a sense of humour or wit
51. Generous. Shares with others
52. Demands help and attention constantly, takes disproportionate share of the teacher’s time
53. Participates well in organised play or game (takes role of leader or follower, plays to completion, follows rules)
APPENDIX K: Student Interview 1

Family:
- Who is in your family?
- Does mum, dad or someone from the family come up to the school for meetings, performances, special days?
- Does mum, dad or someone from your family help you with your homework?

Personal interests:
- What do you like doing at home, at school, other places?
- Friends: home, sport, school, other
- How do you make friends?
- How do you keep friends?

Present school – Principal, teachers, routine, rules
- What are the best things about your school?
- Who are the best teachers you have had?
- Why did you think these teachers were the best?

Class – peers, classroom
- How would you arrange the classroom if you had the chance?
- Do you like participating in group/class activities?

Self – academic, social, physical:
- What are your favourite subjects/activities at school?
- How are you going at school?
- What helps you to learn?

Hearing loss: – personal awareness/acceptance
- When did you find out that you had problems hearing?
- What do you think of your hearing aid, FM, Easy Listener?
- How do you manage your hearing loss in the classroom/at school?

Areas of concern/personal needs:
- Can you understand/follow what your teacher is saying?
- Have you noticed any changes in your hearing?

Future thoughts:
- What would you like to do when you finish school?

APPENDIX L: Student Interview 2, 3, & 4 (Malcolm, 1995)

Student Interview 2
1. Are you deaf or hard-of-hearing?
2. How many other deaf or hard-of-hearing people do you know?
3. Are there other deaf or hard-of-hearing people in your family?
4. How did you become deaf or hard-of-hearing?
5. Do you communicate in sign language?
6. On a scale of one (poor) to ten (excellent), how would you rate your speech skills?
7. Do you think deaf or hard-of-hearing people are likely to graduate from high school?
8. Can deaf or hard-of-hearing people attend college or university?
9. What is a good job for someone who is deaf?
10. Name some jobs deaf people cannot do?
11. Can a deaf or hard-of-hearing person become a:
   - farmer
   - musician
   - computer technician
   - lawyer
   - veterinarian
   - minister
   - doctor
   - carpenter
   - truck driver
   - actor
   - garbage collector
   - athlete
   - secretary
   - airline pilot
   - nurse
   - waitress
   - teacher
   - artist
   - engineer
   - cook
   - school principal
   - police officer
12. What kind of job do you want when you are older?
13. Are deaf and hard-of-hearing people disabled?
14. Are you disabled?
15. If you needed a doctor, would you prefer one who is:
    male    female    deaf or hard-of-hearing    hearing

Student Interview 3
16. Do you wear hearing aid(s)?
17. Why or why not?
18. Do all deaf people wear hearing aids?
19. How do you feel about wearing hearing aid(s)?
20. Do you wear your hearing aid(s): at school? after school? on weekends? in the holidays?
21. Do your friends know that you wear a hearing aid(s)?
22. Do your teachers know that you wear a hearing aid(s)?
23. Do you carry extra hearing aid batteries with you?
24. How much does a hearing aid(s) cost?
25. What would happen if you broke or lost your aid(s)?
26. Do you enjoy listening to the radio?
27. Do you enjoy watching television?
28. What is your favourite television program?
29. Do you have captioned TV?
30. Do you use the telephone?
31. Do you use an amplified headset?
32. Do you use speechreading?

Student Interview 4
33. What are your best and worst subjects in school?
34. How well, from one (not all) to ten (always), do you understand your teachers when they speak?
35. Do you use an interpreter at school?
36. How do you feel about having an interpreter?
37. Which of the following can you hear? school bell your watch ticking people talking car horns fire alarms television
38. Can you follow a conversation better in a well-lighted classroom, or in a car travelling at night?
39. When someone talks to you and you do not understand, what do you do?
40. Would you rather be deaf or blind?
41. Can someone who is deaf or hard of hearing marry a hearing person?
42. Are deaf and hard-of-hearing people smarter or slower than hearing people?
43. Why do you think so?
44. Are deaf and hard-of-hearing people happy?
45. (Part b). Are hearing people happy?
46. Do deaf and hard-of-hearing people have friends? a lot a few none
47. (Part b). Do hearing people have friends? a lot a few none
48. If you could spend time with either deaf or hard-of-hearing person, which would you choose? Why?
49. If you had a choice of dating a deaf or hard-of-hearing person, which would you choose? Why?
50. How do you communicate with your parents? (Check all that apply): speech signs speechreading writing
51. Do your parents sign?
52. How do they feel about that?
APPENDIX M: Parent Interview 1

Student background:
- Onset of hearing loss
- Medical History
- Intervention/support services e.g. Shepherd Centre, Speech Therapy
- Family relationships

Selection of school
- Detail previous education (include pre-school)
- Why did they select this school for their child?
- Any future thoughts of high school?

The school /other agencies
- What are the good/bad things about this school?
- Do the teacher’s understand the student’s special needs?
- How do you find the support services at this school (e.g. Counsellor, School Nurse, ISTH, AHS, Speech Therapist)
- Has learning Arabic or Macedonian been helpful for the student?

Also discuss:
- The need to set realistic goals
- The need to work together as a team
APPENDIX N: Parent Interview 2
(Meadow-Orlans, Mertens, Sass-Lehrer & Scott-Olson, 1997)

Relationship of respondent to child: Section I: Background Information
1. Your child’s date of birth
   Day____ Month ____ Year____

2. Sex: Girl  Boy

3. Who first suspected the hearing loss?
   parent          other relative
   medical doctor  other professional
   other (who? ____________________________

How old was your child then? ______
How old was your child when a specialist confirmed the diagnosis? ______

4. What is the extent of your child’s hearing loss?
   Deaf: can’t understand speech, even with a hearing aid
   Hard of hearing: can understand speech when in a quiet room, with a hearing aid

5. What kinds of instruction or therapy has your child received from a teacher or specialist?
   Speech Therapy: age began: ______
   Sign language: age began ____________
   Other: ___________________________
   Other: ___________________________

Section II. Special Services
1. Did your child attend an educational program before the age of 5? yes  no
   If yes where: ___________________________
   Child’s age in that program: _____ to ______

   What communication method was used with
   Your child there? speech alone  speech & sign
   sign alone

   Did you have a program choice? yes  no
   If yes: Why did you choose this program?
   If no: What kind of program might you prefer?
   ___________________________

   Were any deaf adults on the staff? yes  no

2. How do you evaluate that program?
   a) The staff responded to family concerns, ideas questions always often sometimes rarely
   b) The help my child received was based on his or her individual needs
   always often sometimes rarely
   c) In my meetings with staff, I was an active member of a team, not just a listener
   always often sometimes rarely
   d) Staff accepted the limit our family put on time we could devote to the program
   always often sometimes rarely
   e) I was given a choice of the communication method to be used by my child yes  no
   f) My child’s language progress in that program was:
      excellent  good  satisfactory  disappointing
3. Please check all services available to your family listed since hearing loss was diagnosed:
   a) Information about (please tick all that apply) deafness
   legal rights of deaf children
   child behaviour and/or development
   choices for future school placement
   b) parent group meetings
      (Attended by: mother father)
   c) individual counselling:
      (Received by: mother father others (who?)
   d) other services or instruction:
      (What? by mother father others (who?)

4. Please circle the letter of the one service in question 3 that was most helpful to
   mother a b c d
   father a b c d
   others a b c d

5. Which method of communication is used most with your child at home now?
   speech alone    sign alone
   sign + speech

6. What kind of school program does your child attend now?
   Residential (day student) Residential (dorm) Received
   Day school for deaf students
   Partial mainstream school
   fully mainstream

---

Section III. Sources of help

Listed below are sources that are sometimes helpful to with a young child. Please circle the response that best describes how helpful each has been to you since the diagnosis of your child’s hearing loss.

0 = Not all helpful  3 = Very helpful
1 = Sometimes helpful 4 = Extremely helpful
2 = Generally helpful NA = Not available

1. Spouse (or partner) 0 1 2 3 4 NA
   2. My parents 0 1 2 3 4 NA
   3. My spouse's parents 0 1 2 3 4 NA
   4. My relatives 0 1 2 3 4 NA
   5. My spouse's relatives 0 1 2 3 4 NA
   6. My friend's/spouse's friends 0 1 2 3 4 NA
   7. Parents of deaf children 0 1 2 3 4 NA
   8. Church (minister, rabbi) 0 1 2 3 4 NA
   9. Family doctor/paediatrician 0 1 2 3 4 NA
   10. Therapist or counsellor 0 1 2 3 4 NA
   11. Teacher(s)/specialist(s) 0 1 2 3 4 NA
   12. Deaf adults 0 1 2 3 4 NA
   13. Childcare giver 0 1 2 3 4 NA
   14. Other (who?) 0 1 2 3 4 XX

Do you work outside home? yes no
(If yes: Does your employer help you meet your child’s needs?) 0 1 2 3 4 NA

---

Section IV. Your Child’s Behaviour

Circle the response that best describes your families opinion of your child’s behaviour.

1 = Strongly Agree  2 = Agree
3 = Disagree  4 = Strongly Disagree

1. My child forms warm, close friendships with peers 1 2 3 4
2. My child has no friends 1 2 3 4
3. My child communicates with children &/or adults by any means: gesture, sign, speech 1 2 3 4
4. My child is happy, cheerful 1 2 3 4
5. My child expresses concern for others in pain or distress 1 2 3 4
6. My child does not express a variety of emotions appropriately, (anger, fear, joy, sadness) 1 2 3 4
7. My child has a good sense of humour. Can appreciate funny situations and jokes 1 2 3 4
8. My child is interested in communicating with others & tries to understand them 1 2 3 4
9. My child forms warm attachments to teachers 1 2 3 4
10. My child initiates communication with adults 1 2 3 4

(What is your (usual) occupation?)

(Spouse's usual occupation?)
Section V. Questions about my child’s
Language: signed, cued or spoken
Please tick your response

1. Does your child understand simple sentences?
   (like “We will go to the store”)
   - not yet
   - rarely
   - sometimes
   - often
Does your child use simple sentences
   - not yet
   - rarely
   - sometimes
   - often

2. Does your child talk/sign about future events,
   For example, referring to “aeroplane” before
   You go on a trip; or swing before you go to a park?
   - not yet
   - rarely
   - sometimes
   - often
Does he or she most often use:
   single words/signs: aeroplane, swing or
   short phrases: aeroplane to grandma’s
   more complete sentences
   We’re going on the aeroplane

3. Does your child ask how or why questions?
   - not yet
   - rarely
   - sometimes
   - often
Does he or she generally use:
   single words: (How? Why?) or
   short phrases: (Why home?) or
   more complete questions:
   Why are we going home?

4. Does your child use sentences that express more
   than one idea? (Like “We will go to MacDonald’s
   when daddy gets home”)
   - not yet
   - rarely
   - sometimes
   - often

5. Does your child ask serious questions?
   (Like “What does that mean?” or
    “What happened to that boy?”)
   - not yet
   - rarely
   - sometimes
   - often

6. Can your child read:
   - single words?
   - yes
   - no
   - sentences?
   - yes
   - no
   - story books?
   - yes
   - no

7. Can your child print/write:
   - letters of the alphabet
   - yes
   - no
   - his/her name
   - yes
   - no
   - sentences
   - yes
   - no
   - paragraphs (1-4)
   - yes
   - no
   - page (1-2)
   - yes
   - no

Section VI. Questions about your own feelings
as a parent/ child carer

Please circle your response
1 = Strongly agree 2 = Agree 3 = Not sure
4 = Disagree 5 = Strongly disagree

1. We have more family arguments about
   our deaf (or hard of hearing) child
   than other things?
   1 2 3 4 5

2. I feel proud of the way I have
   responded to the special needs
   of my child
   1 2 3 4 5

3. My stress in my family is related
   to hearing loss?
   1 2 3 4 5

4. My communication skills are quite
   adequate for my child’s needs
   1 2 3 4 5

5. Because of hearing loss, I must
   forget many hopes and dreams
   for my child
   1 2 3 4 5

6. In spite of extra time devoted
   to my child’s needs, I still find
   time for myself
   1 2 3 4 5

7. My child is regularly included in family
   conversations because we have an
   effective communication system
   1 2 3 4 5

8. Parents of children with a hearing loss
   are expected to do many things for them.
   This is a heavy burden for me
   1 2 3 4 5

9. There are many things I can’t seem to
   communicate to my child
   1 2 3 4 5
APPENDIX O: Collaborative Team Dimensions Scale (Luetke-Stahlman, 1995b)

Comment on the Review Meeting

Use the following numbers to indicate your responses:
1 = Strongly agree  2 = Agree  3 = Undecided
4 = Disagree  5 = Strongly disagree

1. All members (parents, school staff etc) participate actively

2. Communication is clear and is easily understood

3. Members actively attend (i.e., ask relevant questions, paraphrase and elaborate on ideas expressed)

4. Comments are focused and relevant

5. Student problems are clearly identified

6. A specific, measurable intervention goal is defined

7. A range of intervention strategies are discussed

8. Everyone has the opportunity to discuss their ideas and opinions

9. Specific strategies are selected for intervention

10. Conflicts and disagreements are dealt with and worked through

11. A plan is developed for measuring the success of the intervention

12. Members are accepting and open-minded

13. The facilitator (group leader) helps in the achievement of tasks

14. Adequate time is allotted for meetings

Additional Comments (if you wish)

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________
### APPENDIX P: Emerging Understandings from the Three Case Studies

<table>
<thead>
<tr>
<th>Hussein ... Case Study One</th>
<th>Mara ... Case Study Two</th>
<th>Fatima ... Case Study Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>- It’s about finding a balance between supporting his special needs and developing his personal independence</td>
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<tr>
<td>- It’s about understanding people (participants and their perceptions and beliefs)</td>
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<tr>
<td>- People, policies and knowledge make a difference (sensitivity and awareness; leadership and partnerships)</td>
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<tr>
<td>- Some things stay the same but some things need to change (personnel and practice)</td>
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<tr>
<td>- It’s about developing independence and personal responsibility</td>
<td></td>
<td></td>
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<tr>
<td>- It’s about motivation (learning, personal goals)</td>
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<td></td>
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<tr>
<td>- It’s about being informed (knowledge, rights and cultural values)</td>
<td></td>
<td></td>
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<tr>
<td>- It’s about acceptance (disability, support, cultural values)</td>
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<tr>
<td>- It’s about working together (personnel inside and outside the school community)</td>
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<tr>
<td>- It’s about being an independent learner (She had a hard time getting it going and knowing what was acceptable)</td>
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<tr>
<td>- It’s about being informed (There was a lot of *You would think... What else can she do?*)</td>
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<tr>
<td>- It’s about attitude and being pro-active (The best placement for her)</td>
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<tr>
<td>- It’s about collaborative and effective support (Transition to every new educational environment needs to be carefully planned).</td>
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</tbody>
</table>

“Attitudes, knowledge and the ability of people to work and relate with one another are critical elements of Hussein’s successful education” (Moussa Researcher Diary, 1998, p.4).

“I’ve come to realise Mara’s education is as good as she and the people around her want it to be!” (Velkovski Researcher Diary, 1999, p.17).

“With inclusive education we need to think carefully about ourselves and the people we are working with” (Salem Researcher Diary, 2000, p.26).