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REGULAR TEACHERS ATTITUDES TOWARDS

THE INTEGRATION OF HEARING IMPAIRED STUDENTS

A COMPARISON OF TWO N.S.W. GOVERNMENT HIGH SCHOOLS

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ABSTRACT

An attitude scale was used to investigate regular class teachers opinions towards the integration of hearing impaired students. The sample was 56 teachers in one N.S.W. state high school and 43 teachers in another N.S.W. State high school. Five dimensions of teacher attitude were investigated, based on an attitudinal survey desired by Larrivee & Cook (1979). This survey has been used in other research and validated for the Australian setting. (Hudson & Clunes-Ross 1984).

The dimensions investigated were :

general philosophy of mainstreaming

classroom behaviour of hearing impaired students

perceived ability to teach hearing impaired students

classroom management with hearing impaired students

academic and social growth of hearing impaired students.

Teacher attitudes in both schools were generally in favour of integration, with teachers strongly supporting the belief that the regular class is superior academically, socially and emotionally to the separate special class. Teachers felt that many of the things they did with regular students were appropriate for hearing impaired students. Teachers were of the opinion that the integration of hearing impaired students would foster the acceptance of differences on the part of the regular school population.

Teachers did not feel the need for significant restructuring of procedures in the classroom, but teachers did feel that they did not have sufficient expertise to teach hearing impaired students. Surprisingly, teachers did not feel the need for extensive retraining of regular teachers.

While this study has ascertained that the teachers from both the

schools have generally positive attitudes towards the integration of hearing impaired students, a further study may attempt to discover why this is so. A future study may wish to look at the relationship between administrative and support services influence on teacher attitudes.

CONTEXT OF THE PROBLEM

Since the passage of Public Law 94-142 (1975) in the United States and the tabling of the Warnock Report (1975) in Britain, students with disabilities have increasingly taken their place in the regular classroom.

In Australia, the need to evaluate support services for disabled students integrated in the regular school has been recognised both at

Federal (Gow, L., Snow, D., & Ward, J. 1987) and State level (Doherty, P. 1988). Gow et al (1987) examine the fact that due to the complex relationship between the Federal and State systems, there is at present no legislation which specifically relates to the integration issue. The Report of the Working Party, chaired by Doherty (1982) 'Strategies and Initiatives for Special Education in New South Wales', identified lack of accountability by Australian Governments and their Education Departments as a barrier to integration. In New South Wales, the Department of School Education advises principals to defer the enrolment if a child's disability exceeds the resources provided and is likely to have a considerable effect on the learning processes of the other children.

The stated basis of the integration policy of the Department of School Education in New South Wales is the principle of 'normalisation'. The effect of this policy is that students with disabilities be placed in the regular neighbourhood school when possible and practicable. However, in NSW., the Regional Director and Director General may direct that a child be enrolled in a specific school. Conceivably before the child's access to the neighbourhood school could be denied.

The administrative, organisational and instructional concerns of integration have received much attention. Schmelkin, writing in 1981, says that within the educational community statements about the need for research on teachers' attitudes towards mainstreaming abound, yet comparatively little research on teacher attitude toward mainstreaming has been carried out. Since the time of Schmelkin's writing, there has been a growing body of research on teacher attitude toward mainstreaming. (Center, Y. & Ward, J. 1987; Center, Y., Ward, J., Parmenter & Nash, R. 1984; Green, K., Rock, D.L. & Weisenstein, G.R. 1983; Larrivee, B. 1982; Leyser, Y. 1988; Leyser, Y. & Lessen, E. 1985; Martin, F.M., Bernstein, M.E., Daly, J. & Cody, J. 1988; Roberts, C. & Pratt, C. 1988; Ysseldyke, J., Algozzine, B. & Allen, D. 1982)

While extensive research is in evidence in the United States, there are few Australian studies other than those already cited (Gow et al 1987, 1988) which have been national overviews of integration. While these have had components which have looked at teacher attitude to mainstreaming, they have not been especially concerned with this issue. Australian studies concerned with the integration of disabled students that have focused on teacher attitude include : Berge, N. & Berge, Z. (1988) Hudson, A. & Clunies-Ross, G. (1984) Center, Y. & Ward, J. (1987) Center, Y., Parmenter, T & Nash, R. (1985) and Roberts, C. & Pratt, C. (1988).

An even smaller body of research exists on teacher attitude toward the integration of hearing impaired students. American studies include those of Johnson, H. & Griffith, P. (1985) Rittenhouse, R. (1987) Rittenhouse, R., Rahn, C. & Morreau, L. (1989) and Martin, F.N., Bernstein, M.E., Daly, J.D. & Cody, J.P. (1988). At this stage, only one Australian study is known to exist on teacher attitude towards the integration of hearing impaired students (Teasdale, J. 1986).

STATEMENT OF THE PROBLEM

The purpose of the study was to identify and compare teachers' attitudes towards the integration of hearing impaired students in two New South Wales State High Schools.

Teacher attitudes were investigated using the Attitude Toward Mainstreaming Scale (A.T.M.S.) developed by Larrivee (1982). This scale is a 30 item Likert type scale. Its reliability and validity in

the Australian setting has been investigated by Roberts and Pratt (1988) and their results were comparable to the investigation undertaken by Green et al (1983). Hudson and Clunies-Ross (1984) have accepted the A.T.M.S. as a valid and reliable instrument and even adopted it as a parent survey.

The Support Unit (Hearing Impaired) was established in one school in 1989 having been moved from another location due to the fact that the school became a Selective High School. The staff and students received preparation for the arrival of hearing impaired students. In the other school the Support Unit (Hearing Impaired) was established in 1984 when the Department of School Education decided to move the unit from another school due to overcrowding at that school. The move was accomplished during the December school vacation with little time for adjustment by students and staff in the new school. Integration of hearing impaired students is now an established practice at both the schools, it is therefore reasonable to survey teacher attitudes towards the integration of these students within those schools. Hearing impaired students are integrated on different levels and with differing levels of support from the staff in the Support Unit as well as

Teachersí Aide interpreters in both schools.

Students are integrated in the following ways :

Full integration into mainstream classes with teacher/interpreter support;

Integration into some mainstream classes with teacher/interpreter support;

Segregation in a Support Class but taught by a mainstream subject specialist teacher (eg Industrial Arts)

Integration into some classes with Itinerant Teacher of the hearing impaired support;

Integration into some mainstream classes without support.

SIGNIFICANCE OF THE STUDY

Recent legislative actions in the U.S. and U.K. and policy statements of the NSW Government have placed new emphasis on integration. As a result, regular educators are being expected to function in an expanded role as teachers of mainstream students. Experience and empirical evidence suggest, however, that teachers lack both a theoretical and practical understanding of the mainstreaming process. The success or failure of mainstreaming may depend largely on the attitudes which regular teachers hold towards disabled students. This concern can be understood in light of the overall unfavourable disposition of regular classroom teachers towards disabled students and integration (Leyser, Y. & Less, E. 1985). Regular class teachers have been vocal in their requests for earlier involvement and better communication regarding the identification, preparation, placement and maintenance of integrated students (Johnson, H. & Griffith, P. 1985).

An investigation of teacher attitudes towards integration is important for the following reasons :

The different perspectives the regular classroom teacher brings to the integration process;

A survey can be an effective tool for documenting these perspectives

Results can be used to plan more effective inservicing programs to meet the stated needs of the regular classroom teacher

Where needs are identified, support for these needs can be canvassed at a government level.

It is important for teachers trained in the education of hearing impaired students and regular classroom teachers to work as partners.

Focusing on different or additional goals and objectives for individual students in a class is a significant departure from regular class teachersí usual teaching procedure. The inclusion of hearing impaired students in the regular classroom thus necessitates some change in attitude and methodology. Investigation of the current status of teacher attitudes towards mainstreaming will enable the specialist

teachers to discover the needs of regular teachers and make concerted efforts to address these needs and help to maximise learning conditions for both the hearing impaired students and their normal hearing peers.

REVIEW OF THE LITERATURE

The literature in this study has been divided into the following categories :

Policy documents and national overviews of integration

Integration / mainstreaming practices

Attitudes and needs of regular class teachers and participation in decision making

Preservice and inservice training in mainstreaming

Reliability of Attitude Towards Mainstreaming Scale

Attitudes towards the mainstreaming of hearing impaired students

Policy Documents and National Overviews

Significant documents relating to the provision of services in recent years are those by Doherty (1985) *Special Education in NSW; Principles underlying the provision of services* and the *Integration Statement and Enrolment of Children with Disabilities Policy of the NSW Government* (Education Gazette No. 1, 1988). Significant National studies are the *Overviews of the Commonwealth Schools Commission Parts I and II* (Gow, L. & Snow, D. 1987; Gow, L., Ward, J., Balla, J. & Snow, D. 1988)

These authors suggest that staffing is a contentious issue for integration with integration exploiting the goodwill of many classroom teachers. They suggest that a future direction for consideration is to substantially modify the preservice training of regular classroom teachers, administrators and school principals with respect to children with special needs. The need for preservice training is also addressed in *A Functional Support Network for Integration* (Konza, D., Gow, L., Hall, J. & Balla, J. 1987). The authors remark that many writers report negative attitudes and anxiety in teachers toward integration. They suggest upgrading of teacher skills and provision of additional resources. Gow and Ward (1988) in *A National Review of Integration* claim that neither special or regular teachers favoured the way in which integration was currently affecting them as educators. The need for inservicing the entire personnel of the integrating school was seen as vital to successful integration. The report concurs with the findings of Konza et al that point to the inadequacy of existing training of teachers and their related personnel. Doherty's contribution to this area has been to describe the evolution of services and the philosophic intentions behind them. Doherty recognises the need for teacher preservice and inservice training.

Integration / Mainstreaming Practices

Studies by Ward and Center (1988); Center, Ward, Parmenter and Nash (1987) and Center and Ward (1987) refer to classroom practices as

related to the various interested parties, ie parents, teachers, peer groups, school principals, counsellors and target children themselves. A study by Berge and Berge (1988) compares practices in the United States and Victoria, Australia. In the U.S., students are considered 'integrated' if they spend any part of the school day with regular peers. In Victoria, integration is described as 'a process of

increasing the participation of children with impairments and disabilities in the education programs and social life of regular schools in which their peers without disabilities participate.' (Ministry of Education, 1984, p.6).

Berge and Berge state that integration as a continuum in the U.S. appears to promote a lack of challenge and that there is little prospect of a student changing from that point where they enter the continuum, over time. In Victoria, integration is cast in a dichotomous mould. Students either participate in regular education or they attend a segregated setting.

Integration teachers were found to have little say in decisions about impaired students. There was also under utilisation of expert opinion and heavy reliance on regular educators and parents in making decisions about integrated students.

Attitudes and Needs of Regular Classroom Teachers and Participation in Decision Making

At a time when little research had been done on teacher attitudes towards mainstreaming, a study by Larrivee and Cook (1979) found attitudes of Junior High teachers to be the most negative. These writers found that level of administrative support and availability of services correlated highly with teacher perception of success in teaching special needs children.

Hudson, Graham and Warner (1979) suggest that regular class teachers are not supportive of mainstreaming the disabled child. The authors conclude that if regular class teachers view mainstreaming unfavourable, the success of the program is in jeopardy and school based experiences as well as preservice and inservice training are necessary to give teachers skills and to modify their attitudes.

An important study of teacher attitude is that of Larrivee (1982). She claims the inconclusive results of many studies are due to methodological weaknesses. Her study was undertaken to provide a conceptual framework for the dimensions that underlie teacher attitude towards mainstreaming.

Attitudes investigated were attitudes towards :
education in general
philosophy of mainstreaming

effect of regular class placement on the social, emotional and
cognitive development of the normal child
the special need child's classroom behaviour
special need child's cognitive functioning
parents of special needs children
perceived ability to teach special needs children

Larrivee's work is significant because the attitude scale she developed for this study has been adopted as an instrument by a number of other researchers, including Roberts and Pratt (1988) who used it in the Australian context. It is also the scale used in this study.

Ysseldyke, Algozzine and Allen (1982) in a study of education team placement meetings, found that teachers did not participate or did so only in a superficial manner. They made the observation that teachers appear to be the most disenfranchised group in the decision making process, despite the fact that they are the individuals most responsible for implementing decisions. While this is an American study, it has implications for the Australian setting. Typically, the review process set up in N.S.W. for students with disabilities involves

the specialist counsellor, specialist teacher, Cluster director and Principal, but the opinions of the regular class teachers are seldom, if ever, sought.

In two Australian studies (Center, Ward, Parmenter and Nash 1985 and Center and Ward 1987) principals' and teachers' attitudes were investigated. Principals were positive only about integrating those students who demanded neither extra competencies nor extra curricular duties from the regular class teacher. Support services most favoured were classroom aides, followed by reduction in class sizes. Specialist itinerant teachers were also viewed favourably but school based resources were seen as being more 'normal' than those provided on an itinerant basis. Results of the Center and Ward study (1987) indicate that teachers lack confidence in their own instructional skills and the quality of support personnel provided to them. They were positive only about integrating those students whose characteristics were not likely to require extra instruction and management skills.

The literature suggests a definite link between teacher attitude and the quantity and quality of support given. Success of students integration experiences cannot be guaranteed if teachers are holding attitudes that these students have been 'main dumped' (Konza et al 1987). Teachers need to feel that they are adequately supported and that their needs are taken into consideration in the placement of the special needs child.

Preservice And Inservice Training in Mainstreaming

In an Israeli study (Naor and Milgram, 1980) trainee teachers who experienced direct contact with disabled children placed a higher value on their course than students who did not have contact with disabled children. Larrivee (1981) reports that experience and contact with exceptional children in conjunction with knowledge and specific skills attainment were linked in the formation of more positive attitudes.

Schultz (1982) notes that widespread changes in teacher training courses dealing with special needs children are not in evidence. In Schultz' study, teachers were confused as to their respective roles and responsibilities. Teachers were not comfortable with their current skills and knowledge and felt their concerns were not being addressed. Leyser and Lessen (1985) in a study of two training approaches, found that the group with field experience did not differ to the other group. Thus the experiential aspects may not be as significant as believed in changing the attitudes of prospective teachers. The contradictory nature of the results of these studies indicate that more research needs to be conducted to determine and prioritise issues and concerns of regular classroom teachers and to plan appropriate training programs.

Reliability of Attitude Towards Mainstreaming Scale

The Attitude Towards Mainstreaming Scale (A.T.M.S.) was first used in the literature by Larrivee and Cook (1979). It has since been used as an instrument by a number of researchers. The A.T.M.S. is a 30 item Likert scale with a reported split-half reliability of .92 (Larrivee and Cook, 1979).

Green, Rock and Weisenstein (1983) investigated the Larrivee and Cook A.T.M.S. and found the internal consistency reliability was .89. These authors chose the scale to investigate because of :

- its development specifically for use with the regular class teacher
- its sensitivity to institutional variables

the adequate scale reliability report.

Green et al (1983) concluded that in the light of the level of reliability and suggested validity, further use of the A.T.M.S. seems warranted. Roberts and Pratt (1988) in an Australian study investigated the psychometric properties of reliability and construct validity of the A.T.M.S. to measure the attitudes of teachers towards the integration of disabled children into regular schools. The internal reliability scale for the 30 item scale was .91 - a result which was comparable with the results of previous investigators. Another Australian study which used the A.T.M.S. is the Hudson and Clunies-Ross (1984) study. This study accepts the A.T.M.S. as a valid and reliable instrument. Roberts and Pratt (1988) maintain that the A.T.M.S. has validity for use within an Australian context, the factor

structure being similar to Larrivee's.

Attitudes Towards the Mainstreaming of Hearing Impaired Students
The British author, Lynas (1986), claims that there is no published research that reveals the ongoing day to day responses of teachers to the placement of hearing impaired students in their classroom. (P.87).

In a U.S. study, Strong, Charlson and Gold (1987) found that hearing impaired students were mainstreamed according to academic performance, hearing loss and interpersonal skills but the willingness of the regular class teacher played a large part.

A study by Martin, Bernstein, Cody and Daly (1988) found the general attitude towards mainstreaming hard of hearing children was positive. However, the majority of respondents indicated that they would prefer to teach these students only if substantial support personnel and inservice training were available. Luckner (1991) in a study of regular education teachers' perceptions of mainstreaming hearing impaired students in three mid-western states, found that regular teachers often lack appropriate preparation and assistance to help the hearing impaired student. Teachers reported that the teacher of the hearing impaired worked directly with the student in the classroom rather than following a 'pull out' model. Regular teachers found this approach to be very helpful.

The only known Australian study is Teasdale's (1986). This study describes an ongoing integration setting in a South Australian High School where hearing impaired students are placed. Teasdale's study (1986) follows an earlier study in 1978 (not cited here). The more recent study found an overwhelmingly positive attitude prevailed among teachers of mainstreamed hearing impaired students. Teachers at the school felt confident about their ability to teach hearing impaired students. Teachers at all levels felt well supported by the specialist teachers. Reasons for the success of the experience at the Pembroke School were suggested as follows :

Australian society is more accepting now of the human and political rights of disabled people. Teachers are well informed on these issues and support them.

Over a period of ten years, teachers have gained experience and found success in the teaching of hearing impaired students

Key personnel have supported the School's integration program

Specialist teachers in the school are providing increasingly sophisticated support in academic areas for mainstreamed teachers.

(Teasdale, 1986).

Summary

From the literature, a number of implications can be drawn. Clearly at a national and state level in Australia there is a lack of legislation regarding the integration of students with disabilities. This is

followed by a void of policy at the systems level. Policies appear to be largely determined at the school level due to the energies of dedicated and cooperative teachers. While studies of teacher attitude towards the integration of special needs students in general abound in the literature, the area of hearing impairment has been neglected.

In an 1984 study, Rumsey indicated that about 90% of hearing impaired students were being educated in integrated setting in government and non-government schools. Given the continuing trend towards educating hearing impaired children in regular schools, an important area for future research must be that of teacher attitude towards these students. Accommodating hearing impaired students' special needs in the ordinary classroom may require modifications on the part of class teachers to their teaching style and classroom procedures and for this they need information and advice. The uninformed, antagonistic or reluctant teacher is not going to serve the best interests of the hearing impaired student in the regular class. If the placement of hearing impaired students in the regular class is to be more than an experiment, clearly the investigation of teacher attitudes and the consequent actions needed to modify those attitudes positively is needed.

METHOD

Sample

The participants in this study were fifty-six teachers at one N.S.W. State Government High School and 43 teachers in another N.S.W. State Government High School. None of the teachers were trained teachers of hearing impaired students. Forty-two of the teachers had experience with hearing impaired students in their class, either currently or in the past. All teachers had been informed in advance of the survey and its topic and had completed the survey during one session on a Staff Development Day in the case of one school and at a staff meeting in the case of the other school.

Instrumentation

The Attitude Towards Mainstreaming Scale (A.T.M.S.) designed by Larrivee (1982) and modified for the Australian context by Roberts and Pratt (1988) was the instrument used. The A.T.M.S. has a reported split-half reliability of .92 (Larrivee and Cook 1979). Green Rock and Weisenstein (1983) found the internal consistency reliability was .89. The A.T.M.S. is a 30 item Likert type survey designed to look at dimensions of teacher attitude. The dimensions of teacher attitude under investigation are :

- General philosophy of mainstreaming
- classroom behaviour of hearing impaired students
- perceived ability to teach hearing impaired students
- classroom management with hearing impaired students
- academic and social growth of hearing impaired students

As these thirty items had been used in a previous study with similar

participants and conditions and found to be satisfactory, no pilot study was undertaken. The survey items are included in Appendix A.

Data Analysis

Data for each item was collected from the fifty six surveys of one school and the 43 surveys of the other school and presented in graph form. All thirty items were grouped into one of the five dimensions described above. Graphs represent raw unconverted scores.

Results and Discussion

a) General Philosophy of Mainstreaming

The results indicate strong support by the teachers for mainstreaming in both schools. They see the regular classroom as the appropriate placement for most hearing impaired students and believe that both hearing impaired and regular students will benefit from the experience with increased understanding and acceptance of differences. A large 'Undecided' result for several responses may indicate that many teachers feel that they do not know enough about integration to make informed decisions.

These responses may reflect, to some extent, the desire to present socially acceptable responses and to support the work of the Support Unit Staff within both schools by showing integration in a positive light. The regular teachers and Support Unit teachers have a good working relationship and rapport between staff has been well established.

B) Classroom Behaviour of Hearing Impaired Students

The majority of teachers agreed that most hearing impaired students were not a problem in the classroom. However, a large 'Undecided' response to items dealing specifically with classroom behaviour may indicate that some teachers believe that problems do exist but did not want to say so, even though the survey was anonymous.

Overall, teachers believed that they needed more patience when teaching these students, but many disagreed with this. In fact the smaller school of 43 teachers disagreed strongly that it was difficult to maintain order in a class where there were hearing impaired students. A divided response was also recorded in regard to completion of set work, with the majority stating that these students do make an adequate attempt to complete work, but with a large number undecided or not in agreement. Personal experiences with specific hearing impaired students may have affected these responses.

A mixed result to this dimension may be due to the periodical poor behaviour displayed by several hearing impaired students in and out of class since the Unit's arrival at one school five years ago. Many

teachers may have based their responses purely on these students' behaviour.

C) Perceived Ability to Teach Hearing Impaired Students

While the teachers strongly supported the idea that regular teachers lack the expertise to assess and teach hearing impaired students, they also believe they do not require retraining to gain these skills. This may indicate feelings of inadequacy when it comes to understanding the needs and teaching of these students, but also a strong belief in their own professional ability and in the assistance provided by the Support Unit staff.

D) Classroom Management of Hearing Impaired Students

Responses to this dimension indicated the teachers' ambivalence towards its subject matter. While the results for the items in this dimension were positive overall and indicated general support for integration, many items had a large 'Undecided' and / or agree / disagree (ie opposite response to response with the highest result) response.

This large 'others' result allowed no clear cut picture to emerge. It supported both categories already discussed, but may also indicate that many teachers felt they needed increased assistance from the Support Unit staff. A noticeable division of opinion in the response item dealing with teacher communication with hearing impaired students supports this suggestion.

E) Academic / Social Growth of Hearing Impaired Students

Overall the teachers supported the concept that an integrated setting was more appropriate for most hearing impaired students, but more from a social than from an academic standpoint. While the majority of teachers agreed that a regular classroom would promote the academic growth and develop the academic skills of hearing impaired students in one school in the other school many were undecided and in the case of the latter also disagreed. (It is possible there may have been some degree of misunderstanding of Item 11 - see Appendix A.) These responses may reflect teachers' feelings of lack of expertise and may have resulted also from the poor academic results gained by several of the hearing impaired students. The teachers strongly supported the notion that hearing impaired students benefited socially and emotionally from an integrated setting. Efforts made by several of the hearing impaired students to join in socially with hearing students has been observed, particularly at the larger school. This is encouraged by the Support Unit staff and may have contributed to this very positive response.

Summary And Directions for Future Research

The results of the survey show that teachers expressed positive attitudes towards the concept of integration as an educationally

desirable philosophy. While teachers viewed regular class placement as academically and socially superior over special class placement, some teachers expressed that in some cases the needs of the hearing impaired child were better met in a separate special class.

Teachers felt that many things they do in the classroom with regular students are also appropriate for hearing impaired students.

Teachers believed that integration fostered an understanding and acceptance of differences and were strongly committed to the notion that hearing impaired students should be given every opportunity to function in the regular classroom. Teachers had reservations as to their expertise to teach hearing impaired students, although they did feel that they had some of the skills necessary to teach hearing impaired students.

While this study is not exhaustive having looked at the attitudes of teachers from only one school, it does serve to remind us that attitudes towards integration are complex and multifaceted. Consequently they cannot be captured by a single score or even a variety of scores.

This study did not control for a series of variables such as teacher experience with hearing impaired students, special education background, skill in Sign language and the relationship between specialist support and teacher acceptance of hearing impaired students.

While the teachers at the school in the study have generally positive attitudes towards the integration of hearing impaired students, a further study may attempt to discover why this is so. Positive feeling by regular teachers do not necessarily mean ipso facto that the educational needs of the student are being met or that the student has sufficient support services and is an active participant in class activities.

A future study may wish to look at the relationship between administrative and support services' influence on teachers' attitudes.

Clearly, the role of the teacher of hearing impaired students emerges as a crucial one. The role of the support teacher in the ordinary

school is complex, difficult and demanding and involves considerably more than simply being able to teach hearing impaired children. Mainstreaming means that the teaching of hearing impaired students is now the shared responsibility of both regular and special educators. The role of the specialist in hearing impairment is now expanding to become that of a collaborative consultant. They are also expected to work with administrators, conduct inservices and work with ancillary service providers such as interpreters and note takers and other professionals such as audiologists, counsellors and community workers.

Teacher attitude towards integration is a function of many variables such as specific skills acquisition and contact and experience with hearing impaired students. Further research may wish to identify additional variables that impact on teacher attitude and their consequent ability to provide appropriate educational experiences for hearing impaired students. A future study may also wish to establish teacher perceptions of success in teaching hearing impaired students and the students own perceptions with the students actual performance.

References

- Berge, N. & Berge, Z. (1988). Integration of disabled students into regular classrooms in the United States and Victoria, Australia. *The Exceptional Child*. 35, 107 - 117
- Center, Y. & Ward, J. (1987). Teachers' attitudes towards the integration of disabled children into regular schools. *The Exceptional Child*. 34, 41 - 55
- Center, Y., Ward, J., Parmenter, T. & Nash, R. (1985). Principals' attitudes towards the integration of disabled children into regular schools. *The Exceptional Child*. 32. 140 - 161
- The Council for Exceptional Children (1976) Official Actions of the 1976 Delegate Assembly. 43
- Doherty, P. (1985). Special Education in NSW. : Principles underlying the provision of service. *The Special Education Journal*. 2. 4 - 8
- Gerber, M. M. (1984). Is Congress Getting the Full Story? *Exceptional Children*. 51 209 - 224
- Gow, L. & Ward, J. (1988) A National Review of Integration. *Australian Journal of Remedial Education*. 20. 20 - 23
- Gow, L., Snow, D. & Ward, J. (1987). Contextual influences on integration in Australia: Overview of a report to the Commonwealth Schools Commission, Part 1. *The Exceptional Child*. 34. 159 - 171
- Gow, L., Ward, J., Balla, J. & Snow, D. (1988) Directions for Integration in Australia: Overview of a report to the Commonwealth Schools Commission, Part 2. *Exceptional Children*. 50. 182 - 183
- Hudson, A. & Clunies-Ross, G. (1984). A Study of the Integration of Children with Intellectual Handicaps into Regular Schools. *Australia and New Zealand Journal of Developmental Disabilities*. 10. 165 - 177
- Hudson, F., Graham, S. & Warner, M. (1979). Mainstreaming: An Examination of the Attitudes and Needs of Regular Classroom Teachers. *Learning Disabilities Quarterly*. 2. 58 - 62

- Johnson, D.W., Johnson, R.T. (1986). Mainstreaming and Cooperative Learning Strategies. *Exceptional Children*. 52. 553 - 561
- Johnson, J. & Griffith, P. (1985) Mainstreaming the hearing Impaired Student - An area of preparation, Responsibility for Teacher Training Programs : A Pilot Study. *The Exceptional Child*. 32. 185 - 109
- Konza, D., Gow, L., Hall, J. & Balla, J. (1987) A Functional Support Network for Integration: Why and How? *Australian Journal of Remedial Education*. 19. 15 - 21
- Larrivee, B. (1981) Effect of Inservice Training Intensity on Teachers' Attitudes Towards Mainstreaming. *Exceptional Children*. 48. 34 - 39
- Larrivee, B. (1982) Factors Underlying Regular Classroom Teachers' Attitudes Towards Mainstreaming. *Psychology in the Schools*. 13. 315 - 323
- Larrivee, B. & Cook, L. (1979) Mainstreaming : A Study of the Variables Affecting Teacher Attitude. *The Journal of Special Education*. 13. 315 - 323
- Leyser, Y. (1988) The Impact of Training in Mainstreaming on Teacher Attitudes, Management Techniques and the Behaviour of Disabled Students. *The Exception Child*. 35. 85 - 95
- Leyser, Y. & Lessen, E. (1985). The Efficacy of Two Training Approaches on Attitudes of Prospective Teachers Towards Mainstreaming. *The Exceptional Child*. 32. 175 - 183
- Luckner, J. L. (1991) Mainstreaming Hearing Impaired Students : Perceptions of Regular Educators. *Language, Speech and Hearing Services in Schools*. 22. 302 - 307
- Lynas, W. (1986). Integrating the Handicapped into Ordinary Schools : A Study of Hearing Impaired Pupils. Croom Helm, London
- Lynas, W. (1987). The Integration of Deaf Children into Ordinary Schools : Problems and Possibilities. *Taralye Bulletin*. 52. 4 - 9
- Martin, F. N., Bernstein, M. E., Daly, J.A. & Cody, J.P. (1988) Classroom Teachers' Knowledge of Hearing Disorders and Attitudes about Mainstreaming Hard-of-Hearing Children. *Language, Speech and Hearing Services in Schools*. 19. 83 - 95
- Naor, M. & Milgram, R. (1980). Two Preservice Strategies for Preparing

Regular Class Teachers for Mainstreaming. *Exceptional Children*. 47.
126 - 129

Nirje, B. (1970). The Normalisation Principle. Implications and
Comments. *The British Journal of Subnormality*. 16. 9 - 16

Rittenhouse, R. (1987) Attitudes of Deaf and Normal hearing High
Schoolers Towards School, each other and themselves: Mainstreamed and
Self-Contained Comparisons. *Journal of Rehabilitation of the Deaf*.
21. 24 - 28

Rittenhouse, R., Rahn, C. & Morreau, L. (1989) Educational
Interpreter Services for Hearing Impaired Students : Provider and
Consumer Disagreements. *Journal of the American Deafness and
Rehabilitation Association*. 22. 57 - 62

Roberts, C. & Pratt, C. (1988) The Reliability and Validity of a

Scale to Measure Teachers' Attitudes Towards Integration in an
Australian Context. *Australasian Journal of Special Education*. 12
(2) 31 - 36

Rumsey, C. N. (1984) Communication Practices of Mainstreamed Hearing
Impaired Secondary School Students in New South Wales, Australia.
University Microfilms International

Schmelkin, L.P. (1981) Teachers' and Non-Teachers' Attitudes Towards
Mainstreaming. *Exceptional Children*. 48. 42 - 44

Schultz, L. (1982) Educating the Special Needs Student in the Regular
Classroom. *Exceptional Children*. 48 366-367

Strong, M., Stone-Charlston, E. & Gold, R. (1987) Integration and
Segregation in Mainstreaming Programs for Children and Adolescents with
Hearing Impairments. *The Exceptional Child*. 34. 181 - 195

Teasdale, J. (1986). Progress and Promise: Educating Students with
hearing Impairment at Pembroke School. A Report funded by the
Commonwealth Schools Commission.

Ward, J. & Center, Y. (1988) The Integration of Disabled children
into Regular and Support Classes - a naturalistic Study. Unpublished
Paper. Annual Conference of the Australian Association for Research in
Education. Armidale University of New England.

Ysseldyke, J., Algozzine, B. & Allen, D. (1982) Participation of
Regular Education Teachers in Special Education Team Decision Making.
Exceptional Children, 48. 365 - 366