

Edith Cowan University  
**Research Online**

---

Theses : Honours

Theses

---

1989

**Variations in attitude between children in different years towards peers with special physical needs in a Western Australian primary school**

Natalie C. Robins  
*Edith Cowan University*

Follow this and additional works at: [https://ro.ecu.edu.au/theses\\_hons](https://ro.ecu.edu.au/theses_hons)



Part of the [Special Education and Teaching Commons](#)

---

**Recommended Citation**

Robins, N. C. (1989). *Variations in attitude between children in different years towards peers with special physical needs in a Western Australian primary school*. [https://ro.ecu.edu.au/theses\\_hons/175](https://ro.ecu.edu.au/theses_hons/175)

This Thesis is posted at Research Online.  
[https://ro.ecu.edu.au/theses\\_hons/175](https://ro.ecu.edu.au/theses_hons/175)

# Edith Cowan University

## Copyright Warning

You may print or download ONE copy of this document for the purpose of your own research or study.

The University does not authorize you to copy, communicate or otherwise make available electronically to any other person any copyright material contained on this site.

You are reminded of the following:

- Copyright owners are entitled to take legal action against persons who infringe their copyright.
- A reproduction of material that is protected by copyright may be a copyright infringement. Where the reproduction of such material is done without attribution of authorship, with false attribution of authorship or the authorship is treated in a derogatory manner, this may be a breach of the author's moral rights contained in Part IX of the Copyright Act 1968 (Cth).
- Courts have the power to impose a wide range of civil and criminal sanctions for infringement of copyright, infringement of moral rights and other offences under the Copyright Act 1968 (Cth). Higher penalties may apply, and higher damages may be awarded, for offences and infringements involving the conversion of material into digital or electronic form.

## USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

WESTERN AUSTRALIAN COLLEGE  
OF ADVANCED EDUCATION

VARIATIONS IN ATTITUDE  
BETWEEN CHILDREN IN DIFFERENT YEARS  
TOWARDS PEERS WITH SPECIAL PHYSICAL NEEDS  
IN A WESTERN AUSTRALIAN PRIMARY SCHOOL

A DISSERTATION SUBMITTED TO  
THE SCHOOL OF EDUCATION  
IN CANDIDACY FOR THE DEGREE OF  
BACHELOR OF EDUCATION (HONOURS)

BY  
NATALIE C. ROBINS

NOVEMBER, 1989

**ABSTRACT**

This study examined the attitudes of regular school students towards their peers with special needs within a Western Australian primary school. Comparisons were made between the children in Years 1, 4 and 7 of a specific school to identify whether any significant variations in attitude were present between the different years. Attitudinal data was collected by presenting an oral questionnaire to one, randomly selected, class of students from each of the three year groups (n=72).

The questionnaire included items which measured how the students felt about playing with and being near children with special needs ('Casual Contact') and to what extent the students would be influenced by their own peers' reactions to these children ('Peer Influence'). Both these sub-categories were combined to make an overall category of 'FRIENDSHIP'. Other items measured how the students felt about working with and helping children with special needs in the classroom ('Classroom Contact') and the students' perceptions of how a child with special needs would be able to function in the classroom ('Classroom Perceptions'). These were then combined to make an overall category for 'INTERACTION'.

Responses were recorded by the students on two or four point rating scales depending on their year level. These responses were then scored to enable a computerised analysis of variance to be performed. The analysis showed the Year 1 students to have significantly different

attitudes ( $p < 0.001$ ) from the Year 4 and 7 students in all areas examined. Relevant implications and conclusions are highlighted in the discussion.

**DECLARATION**

I certify that this thesis does not incorporate, without acknowledgement, any material previously submitted for a degree or diploma in any institution of higher education; and that to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where due reference is made in the text.

A solid black rectangular box used to redact the signature of the author.

Natalie Robins

## **ACKNOWLEDGEMENTS**

The guidance and advice of Mr Kevin Casey in the initial stages of this research project is gratefully acknowledged. He paid great attention to detail and openly shared his experience and knowledge. Sincere appreciation is also extended to Dr Glenda Campbell-Evans, who subsequently assumed the role of supervisor, for her encouragement and advice. She was knowledgeable and generous with her time when called upon for assistance and in all matters pertaining to supervision and administration. Dr Sybe Jongeling's assistance with the processing and analysis of the data was also much appreciated. His expertise as a statistician was invaluable.



**CONTENTS**

ABSTRACT . . . . .	ii
DECLARATION . . . . .	iv
ACKNOWLEDGEMENTS . . . . .	v
LIST OF TABLES . . . . .	viii
INTRODUCTION . . . . .	1
Statement of Problem . . . . .	1
Background of Problem . . . . .	1
Definition of Terms . . . . .	2
Statement of Purpose . . . . .	4
Limitations . . . . .	5
LITERATURE REVIEW . . . . .	6
Attitudes and Measurement . . . . .	6
Integration of Disabled Children . . . . .	12
Attitudes toward Disabled Children . . . . .	14
HYPOTHESIS . . . . .	21
PROCEDURE . . . . .	22
Subjects . . . . .	22
Instruments . . . . .	22
Data Collection . . . . .	30
RESULTS . . . . .	32

DISCUSSION . . . . .	37
Recommendations . . . . .	44
Conclusion . . . . .	46
SUMMARY . . . . .	48
REFERENCES . . . . .	50
APPENDIX A : Questionnaire . . . . .	54
APPENDIX B : Questionnaire Categories . . . . .	55
APPENDIX C : Years 4 & 7 Response Sheet . . . . .	56
APPENDIX D : Year 1 Response Sheet . . . . .	57
APPENDIX E : Permission Letter . . . . .	58
APPENDIX F : Permission Slip . . . . .	59

**LIST OF TABLES**

Table 1.	Sub-category/Category Reliability Coefficients and Standard Errors of Measurement . . . . .	26
Table 2.	Correlation Coefficients between Paired Items for each Year Group . . . . .	33
Table 3.	Category Breakdowns and Possible Maximum and Minimum Scores . . . . .	34
Table 4.	Sub-category/Category Mid-points, Mean Scores, F Values and Probability Levels . . . . .	35
Table 5.	Summary of Attitudes for each Year Level . . . . .	39

## **INTRODUCTION**

### **Statement of Problem**

One factor affecting the successful integration of children with special needs into regular classes is the attitudes of the children towards one another, or more specifically, the attitudes of regular students towards their peers with special needs. It is generally recognised that 'awareness' programmes help foster positive attitudes towards children with special needs, yet in order to develop suitable programmes for each year level it is necessary to identify the differences in attitude of children in different year levels resulting from their differing experiences and knowledge.

### **Background of Problem**

The present trend in Special Education focusses on the early identification of children with special needs and the integration of these children into regular schools and the community.

Integration is vitally important if the child is to receive a 'standard' education and then be able to enter the community and live and work as a self-supporting individual. A key to successful integration lies in the social acceptance of the child both at school and in the community. Services and programmes are being developed to help expose children with special needs to society in general and hopefully create more positive societal attitudes through increased

awareness.

In schools, acceptance relies basically on teacher and peer attitudes towards children with special needs within the school. Various research studies have been conducted to examine teacher attitudes and the development and implementation of integration programmes, yet minimal research, particularly in Western Australia, has been done to look directly at children's attitudes towards their handicapped peers.

A need therefore, appears to exist to investigate the attitudes of Australian children towards their peers with special needs. This is especially important as more Education Support Centres and Education Support Units are being introduced into regular schools. The findings of such a study will assist in preparing programmes or activities for specific year levels to promote awareness and peer acceptance between children with and without special needs and may also highlight the most appropriate year level to start integration.

### **Definition of Terms**

For the purposes of this research the following definitions will be used:

Integration - the placement of children with special needs into regular classes for whole or part days.

Children with Special Needs - children who cannot work in a regular or special classroom without special support due to a physical or mental disability. The focus of this study, though, will be on children with special needs whose physical appearance is affected by their disability, i.e. Down's Syndrome children, children with leg callipers, etc.

Attitude - "an individual's predisposed thoughts, feelings and actions" (Warren, 1985, p.28).

Attitudes towards peers - the thoughts, feelings and actions children have towards other children of a similar age, that are formed as a result of past knowledge and experiences.

Positive Attitudes - those attitudes which are viewed by educators as being conducive to successful integration and therefore desirable.

Negative Attitudes - those attitudes which are viewed with disfavour and are not conducive to successful integration.

The following clarifications also need to be made:

An Education Support Centre (ESC) is a support facility, attached to a regular school, which provides educational support by developing individualised learning programmes for children with physical and/or learning difficulties. Where required, paramedical support is provided

for physically handicapped children. An ESC usually consists of three or four classrooms, a Principal, three specialist teachers and a teacher's aide. It aims to promote the integration of its children into regular classrooms and in addition provides remedial support for some of the regular students.

An Education Support Unit (ESU) is a smaller scale ESC. It is usually situated within the regular school and is comprised of one classroom, one specialist teacher and a part-time aide.

### **Statement of Purpose**

Following the recommendations of the Beazley Report (1984), integration is now accepted policy within the Ministry of Education. Consequently, regular schools are enrolling a significant number of children with special needs, who would previously have been enrolled in Special Schools. The responsibility for developing school policies and programmes to cater for these children lies increasingly with individual schools as a result of the Better Schools Commission Report (1987). Placement decisions are also becoming more localised with District Superintendents responsible for the identification and placement of the children. Action must therefore be taken to establish successful integration procedures for children with special needs into the regular school settings to ensure that both parties gain from the new relationship. Research has demonstrated that attitudes are among the main influences on successful integration and hence they become an important area for local research and study.

A disproportionate amount of the research in this area to date has been conducted overseas. An attitudes study in a Western Australian metropolitan primary school, although too specific to be validly extrapolated to primary school populations as a whole, might provide useful guidelines for further, more comprehensive, research which may have a significant impact on the effective implementation of integration policies.

### **Limitations**

This study focuses on attitudes towards children with special needs whose physical difference sets them apart from non-handicapped peers. The results, therefore, are relevant to this population, not to children with special needs in general. Similarly, the study was conducted in one Western Australian primary school and hence the results are specific to this one population, not to all school populations throughout the state.

The questionnaire was developed specifically for this study. It was piloted and revised, but the limited distribution has implications for its validity and reliability.



## **LITERATURE REVIEW**

This literature review will begin by presenting some definitions of attitude. A number of instruments for measuring attitudes will then be described and problems associated with attitude measurement discussed. The focus will then turn to an examination of some of the underlying assumptions and considerations related to integration. The review will then concentrate on literature which reports research on the attitudes of teachers and students towards disabled children. Particular reference will be made to the effects that contact, knowledge, environment, gender, physical appearance and age have on student's attitudes towards peers with special needs.

### **Attitudes and Measurement**

Initially, clarification needs to be made as to the meaning of the word 'attitude'. Horne (1985) reports a number of definitions of attitude, two of which are; "a mental and neutral state of readiness, organised through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related" (p.1) and "an idea charged with emotion which predisposes a class of actions to a class of particular social situations" (p.2). Both these definitions give the notion that an attitude is a mental state which influences an individual's actions. A simplified definition of attitudes could therefore be stated as "an individual's predisposed thoughts, feelings and actions ... " (Warren, 1985, p.28). Osgood, Suci and Tannenbaum (1975) extend the notion

that an attitude is a predisposition to respond or act, by describing it as an "evaluative response" (p.189) thus, allowing reference to attitudes as favourable/unfavourable, or positive/negative and so on.

Thus, an attitude can be described as a state of readiness, causing an individual to act or respond in a certain manner when presented with certain stimuli (Oppenheim, 1986). In order to measure this state of readiness it is necessary to tap into and measure an observable behaviour or response resulting from a specific stimulus, to gain an index of measurement. This index can then be used to describe an attitude, by both direction and intensity (Osgood et al., 1975).

Horne (1985) identifies some specific instruments that can be used to measure attitudes. Her discussion includes the semantic differential technique, the Q-sort technique, the paired comparisons method, the adjective checklist technique, mainstreaming questionnaires, interviews, attitude scales, rank order scales, sociometric procedures, behavioural observations and projective methods. The only suitable instruments of these for eliciting attitudes towards disabled peers, from primary school students in Years 1 to 7, are the last five, hence, only these will be described in brief. The other instruments are unsuitable as they either require extensive reading, are too complex to explain to primary school children or are too long for the attention span of children of that age.

The two types of attitude scales most commonly used are the summated rating scale and the equal appearing interval scale. Summated rating scales, also known as Likert scales, require the

subjects to indicate the extent to which they agree or disagree to a statement on a scale of ordered responses, such as: strongly agree / agree / undecided / disagree / strongly disagree. The number of response alternatives usually ranges from two to seven. Each response in the scale is assigned a numerical value, for example strongly agree = 5, agree = 4, undecided = 3, disagree = 2 and strongly disagree = 1, allowing the responses to be summed and calculated to obtain an attitude score. An advantage of this scale is that it can be simplified or extended to suit different populations.

Equal-appearing interval scales present the respondents with actual statements to choose from in response to an initial stimulus. The statements are sorted by judges as to how positive or negative they are, and are then assigned a specific value along a psychological continuum ranging from positive to negative. Horne (1985) presents the example of the Disability Social Distance Scale whose nine items and scaled values are; "would marry (0.33), would accept as a close kin by marriage (0.57), would have as a next door neighbor (0.85), would accept as a casual friend (1.06), would accept as a fellow employee (1.21), would keep away from (2.95), would keep in an institution (3.14), would send out of the country (3.65), and would put to death (4.69)" (p.30). Although this scale can actually identify the intensity of attitude a person holds it is very time consuming and complicated to construct.

Rank order scales require the respondents to rank-order a list of items or statements from one given extreme to the other. Horne's (1985, p.31) example here is the Handicapped Ranking Scale in which

parents were asked to rank order ten disabilities from most to least severe. In most cases this method requires the respondent to read the lists of items. For young children, therefore, a picture ranking procedure is often applied. The principal of this method is the same but instead of using written statements, the children are presented with pictures or drawings.

Sociometric procedures determine a group's social structure, including the identification of stars, isolates, neglectees and rejectees, by asking each member to rank other members of the group according to some criteria such as, which five people would you most like to sit beside? These procedures are easy to devise and use, and they provide an inside view of peer group relationships, but they do not reveal the basis on which the choices were made or why.

Behavioural observations involve the recording of occurrences of specified behaviours. Sampling of the behaviours can be done using event sampling, recording of the actual event of behaviour, time sampling, recording only during a specified time, or a combination of the two. The observer may use tallies, checklists, category selections, written records or numerous other methods for recording the occurrences. Behavioural observations are especially useful in identifying changes in behaviour over time.

"Projective methods are relatively unstructured procedures of obtaining responses thought to tap the inner world of the individual and to reveal feelings, emotions, desires and attitudes of which the individual is not aware. This information is secured by interpreting

the subject's drawing or their responses to pictures, or sentence completion tasks" (Horne, 1985, p.46). Some common projective methods are association tasks, story or picture creation, sentence completion, answer selections and styles of expression. Although these methods have not been extensively used in studying attitude toward handicaps, they provide an option for work of this nature. The responses can be evaluated simply at face value or by using trained psychological examiners. Of these instruments, the summated rating scale would appear the most appropriate for assessing attitudes of primary aged children.

While each procedure or measuring instrument has its own advantages and disadvantages, there are other problems unique to the measurement of attitudes (Henerson, Morris and Fitz-Gibbon, 1987; Kidder & Judd, 1986). In their introduction to measuring attitudes, Henerson et al. (1987) highlight the fact that attitude is a mental construct which influences a person's behaviour, hence we can only infer a person's attitudes from their words or actions. It is this reliance on inference which causes many of the problems associated with attitude measurement.

Oppenheim (1986) talks about attitudes as having numerous different attributes including intensity, endurance and direction. Intensity reflects how strongly a person feels about and hence abides by an attitude, endurance reflects whether the attitude is stable over time or is superficial and will fluctuate with different circumstances, and direction follows the assumption that attitudes lie on a linear continuum from positive to negative. Because of the complexity of

such attributes Oppenheim suggests that a number of measuring procedures should be employed in attitude studies in order to measure all aspects of a person's attitude.

Kidder and Judd (1986) describe attitudes as complex and multidimensional. From this perspective, an individual does not have a single attitude but rather, a conglomeration of attitudes which allow for different responses to different stimuli within the same issue. In contrast, they explain that it is also possible for a respondent to not have an attitude on a subject, simply because they have never thought about the issue until asked. Their responses will then be a neutral 'don't know / undecided' or will reflect a common social opinion. These two points reiterate that expressed attitudes are very much dependent on how the attitudes are elicited and highlight the sensitive and subjective nature of attitudinal research.

The complexity of attitude measurement and the difficulty of identifying people's true feelings by means of paper and pencil tests makes it imperative that this research should focus on an instrument which can be administered verbally and requires children to respond in a restricted range of alternatives. Therefore, a summated rating scale modified to suit each of the year levels, would be able to identify the student's attitudes towards disabled children within the school environment. Time does not permit the use of behavioural observations and more information is required than can be obtained from rank order scales or sociometric procedures.

## **Integration of Disabled Children**

Warren (1985) has succinctly highlighted society's perceptions of, and responses to, handicapped individuals. Throughout history the stigma a disabled person acquires has been the focus for labelling and this has frequently resulted in inappropriate treatment. In terms of educational placement this often meant segregation into schools for the disabled, rather than the more positive integration with non-disabled peers. Currently a policy of integration is being pursued in most education systems throughout the Western world.

Gresham (1982) pinpointed three assumptions commonly made when implementing integration programmes in schools. They are; integration will increase the social interaction between handicapped and regular students, social acceptance of handicapped peers will increase, and the handicapped children will begin to model the behaviours of the regular students due to the increased exposure. He then clearly explained that these are the desired outcomes of integration, but not automatic consequences. As a result he highlighted the need for curricula to teach social skills to produce effective interaction and peer acceptance.

Evans and Simmons (1987) investigated joint physical education activities between regular and special school students. Throughout the lessons, careful observations were made on the students' reactions to the project. Although initially withdrawn, participants eventually made more contact with each other and participated constructively in the programme. The observations identified three aspects to be

considered when implementing integration programmes. Firstly, the regular students will benefit more if they are prepared for the experience through the use of videos, pictures and discussions about handicaps. Secondly, a wide range of activities must be implemented to stimulate the children at many different levels and thirdly, careful evaluation of the students' interactions and attitudes will assist in long term planning and development of the programme.

Many other studies which focus on integration identify factors which influence the success or failure of the programmes. Brinker and Thorpe (1986) identified several features related to the degree of achieved integration within a school such as, the teaching of social behaviours to the handicapped children, the promotion of favourable attitudes towards integration by the teachers, the scheduling of time for the children to be physically integrated and a lessening of teacher presence and influence once the integrated setting has been established. Cole, McQuarter, Meyer and Vandercook (1986) also discussed the importance of withdrawing teacher intervention over time to allow students to resolve interpersonal differences and hence establish their own social status within the classroom.

One factor generally identified as aiding successful integration programmes is the attitudes of the non-handicapped towards the handicapped. Positive attitudes must be developed in order to promote successful integration.



## **Attitudes toward Disabled Children**

Donaldson (1980) reviewed a number of techniques which attempt to produce changes in attitudes towards disabled persons. They include providing contact with and exposure to the disabled, presenting information about disabilities, using structured group discussions and organising opportunities for disability simulation. In theory these techniques will reduce the discomfort or uneasiness a person may experience in the presence of a handicapped individual, provide them with knowledge about the situation and develop empathy for the handicapped.

The attitudes of teachers themselves towards children with special needs have a significant impact on the success of school integration programmes. Casey (1978) concluded from his research on teacher attitudes that the labels given to handicapped children largely influenced teachers' attitudes towards them, resulting in different reactions to different handicaps. For example, mentally retarded children were conceptualized by teachers as being aggressive and impolite while emotionally disturbed children were conceptualized as being sad, unfriendly and dishonest. Teachers' attitudes also appeared to be influenced by how they perceived the children interacting in the classroom rather than on individual characteristics. According to Cole et al. (1986) teachers' attitudes and perceptions of disability have a profound effect on the success of intervention programmes and on integration as a whole.

In spite of all that is being done to promote successful

integration, the research still shows integrated children with special needs to be typically unpopular and less accepted among their regular peers. (Coben & Zigmond, 1986; Espiner, Wilton & Glynn, 1985; Ray, 1985; Sabornie, 1985; Sandberg, 1982; Siperstein, Bopp & Bak, 1978; Towfighy-Hooshyar & Zingle, 1984.) Researchers studying integration and the acceptance of children with special needs into regular classrooms have identified numerous variables which seem to affect the attitudes of students towards their peers with special needs. These variables include contact, knowledge, environment, gender, physical appearance and age.

## CONTACT

The amount of contact and interaction the students have had with handicapped peers is identified in the literature as one important variable. A study by Sandberg (1982), comparing students who had contact with disabled children with those who had no specific contact, indicated that there was no significant difference in attitudes due to the varying amounts of contact experienced. Lehrer (1983) noted that integration, which provided contact, lessened the stereotypic handicap schema the regular students had, but did not necessarily promote more positive attitudes towards the handicapped peers. Others, however, state that there is a significant difference in attitudes, with the students who have had greater contact displaying more positive, accepting attitudes (Towfighy-Hooshyar & Zingle, 1984). This was very evident in Poorman's (1980) report on "Project Special Friend" where regular students went into the special class attached to their school to work on a one-to-one basis with handicapped children.

Although there was initial hesitancy, positive attitudes soon developed as the programme evolved. The change in attitudes was not only towards the handicapped children, but towards their peers in general with the students becoming more understanding of people's differences and more willing to help one another. The work of Coben and Zigmond (1986) showed that acceptance problems arose between regular and handicapped students not because of their differences, but because the students simply did not know each other.

## KNOWLEDGE

Others who have examined knowledge of handicaps as a variable affecting attitudes have generally found that knowledge does promote positive attitudes (Higgs, 1975). Orlansky (1979) examined student teachers' attitudes towards children with special needs and determined that, through teaching them about children with special needs, their attitudes could be favourably influenced. Two different teaching methods were used in the study and although both obtained favourable results, the most successful method provided active learning experiences, such as simulation of physical disabilities and problem solving activities. The other teaching method simply provided information through a lecture based programme. After presenting a film, showing the aspirations and interests of a handicapped child, to a number of school students, Westervelt and McKinney (1980) recorded a favourable change in attitudes towards handicapped children. However, the results from a post-test indicated that the change was only temporary. When Johnson and Cartwright (1979) looked at information and experience as effective variables they concluded that neither was

positively related to improved attitudes, but together they did increase awareness and knowledge of handicapped children's capabilities and needs.

## ENVIRONMENT

Some studies looked at attitudes in 'working' environments and 'playing' environments separately. There did not seem to be significant variations in attitudes between the two environments. Espiner et al. (1985) monitored the social interactions, in the classroom and in the playground, of a group of special needs children integrated into a regular class. Although interactions were different, favourable attitudes were shown by the students towards the special needs children in both classroom and playground environments. A study by Sandberg (1982) examined numerous variables, including environment, and their influence on attitude formation. All results, except those from the examination of 'working' and 'playing' environments, showed significant differences in attitudes towards disabled peers. Sandberg thus proposed that it is the individual characteristics of the children involved, rather than their location, which influences attitude formation.

## GENDER

Gender differences have also been considered in terms of their influence on attitudes. Sandberg (1982) identified a difference between the attitudes of girls and boys towards children with special needs, with girls having the more positive attitudes. Boys appeared to

disfavour children whose appearance and/or behaviour was affected by their disability while girls were less influenced by appearance and behaviour and were prepared to at least spend some time with children with special needs. Evans and Simmons (1987) supported this by suggesting that the more positive attitudes shown by girls may be due to a 'mothering' instinct or the slightly more mature outlook of girls by the upper primary years.

### PHYSICAL APPEARANCE

Differences in physical appearance of many children with special needs creates another variable which appears to influence student attitudes. In Sandberg's (1982) study, descriptions of special needs children and the same descriptions accompanied by pictures were presented to school students. The presentation of descriptions plus pictures resulted in more negative responses, especially in boys, than did the descriptions alone thus indicating that appearance does influence attitudes. Siperstein et al. (1978) appear to contradict these findings. In their study, learning disabled children, who looked no different from their regular peers, were still rated low on class popularity scales. The higher rating of some of the learning disabled children tended to be influenced by other features, such as athletic ability. Indications were that ability, whether academic or nonacademic, influenced attitudes more than appearance alone.

### AGE

Another variable to consider is the effect the students' age has

on their attitudes towards handicapped peers. As a child gets older many factors influence his or her feelings, such as experience, knowledge and general maturation. After studying both high school and primary school integration programmes, Sabornie (1985) noted that handicapped children across all grades were consistently unpopular amongst their non-handicapped peers. Two separate studies that considered age as a variable gave differing results. Towfighy-Hooshyar and Zingle (1984) looked at students from years two, four and six (n=240) in four schools with integration programmes and found positive attitudes developed with age. Sandberg (1982) on the other hand, looked at year four, five and six students (n=400) from two schools with integration programmes and two schools without. She found a decrease in positive attitudes with age. Both studies identified age as a strongly influential variable and showed that the age of the students involved, like many other variables, influences different student populations in contrasting ways.

Bricker (1978) discussed a study in which a number of special needs children were identified and integrated into nursery schools at a young age. A few years later when they were integrated into regular primary school classes it was noted that their social acceptance by peers was not, in general, significantly different from their regular peers. Bricker argued that segregation of the disabled is likely to maintain negative attitudes while early intervention and integration of handicapped children into regular programmes is more likely to promote positive attitudes, especially with younger children.

Successful integration is dependent upon many factors, one of

which is the social acceptance of the children with special needs within the regular school environment. Many of the variables likely to influence the attitudes of students towards their peers with special needs have been identified and researched. The effects that contact, knowledge, environment, gender, physical appearance and age have on student attitudes have been a focus of this review. Variations found in the literature may be caused by differences in environment, school programmes, degree of contact with disabled children and previous experiences of each population studied. These contradictory results highlight the sensitive and subjective nature of attitudinal research therefore justifying the need for further specific studies in localised geographical areas.

**HYPOTHESIS**

This study is designed to explore the variable of age differences. It aims to determine if there is any variation in attitudes towards peers with obvious special needs, between students in different years in a Western Australian primary school.

**Hypothesis:**

There will be significant differences in attitudes towards peers with special needs between students in Years 1, 4 and 7, in a specific school.

**Null Hypothesis:**

There will be no significant differences ( $p < 0.05$ ) in attitudes towards peers with special needs between students in Years 1, 4 and 7, in a specific school.



## **PROCEDURE**

### **Subjects**

One school in the Perth metropolitan district of Joondalup was chosen for the study. This school has a student population of approximately 800 and is designated as a Class 1A school. Features leading to the selection of this particular school included a large student population, an Education Support Centre (ESC) which has been operating for over three years and the fact that it is a fairly typical example of modern Western Australian primary schools.

One class was chosen at random from each of Years 1, 4 and 7. Allocation of students to classes within the school is done on an essentially random basis ensuring a mix of abilities within each class. Therefore, the samples selected were taken to be representative of their respective populations. Students who are currently enrolled in the ESC were not included in the samples. The total number of participating students was 72, consisting of; 20 Year 1 students, 27 Year 4 students and 25 Year 7 students.

### **Instruments**

#### QUESTIONNAIRE

A sixteen item Peer Attitudes Questionnaire was designed for this study (see Appendix A). The items were statements, such as "I

would like to go on an excursion with some disabled children", to which the students could respond by agreeing or disagreeing. These were based on the style of items used by Towfighy-Hooshyar and Zingle (1984).

Piloting of the questionnaire was carried out on a group of fifteen students, five from each of Years 1, 4 and 7 in a neighbouring school. Amendments were made to the questionnaire and further piloting was done with a second and different group of students. The pilot school was very similar to the research school in size and function, but differed in that it did not have an ESC.

The questionnaire was administered on a one-to-one basis. Each item (statement) was read to the student. Although this method may have introduced an interviewer effect it was considered necessary to alleviate problems associated with reading difficulties. The phrasing of the items was kept fairly simple for the benefit of the Year 1 students. Both positive and negative statements were presented, in a random order, to avoid having the students simply agree to all items to please the interviewer and to avoid a stereotype pattern of responses.

The questionnaire items were divided into two categories, which were then sub-divided to make four sub-categories. This was done to focus the study on different aspects of attitude and to aid interpretation (see Appendix B). The initial two categories were chosen as they cover the two broad environments in which students would have contact with disabled children within a school. They are; the playground, where informal contact is made, and the classroom,

where contact is more formal. As children are influenced by peer pressure the area of informal contact was sub-divided to examine the children's own attitudes towards the disabled children and how they would be influenced by knowing their peer's attitudes. Peer influence is a variable which will influence a student's attitudes, and hence should be considered. Similarly the functioning of the classroom is an affective variable. When a disabled child enters a regular classroom there are bound to be changes in the functioning of that class. A sub-division in the formal contact area allowed an evaluation of the student's attitudes towards having disabled children in their class and their attitudes as influenced by the changes they perceived happening in their classroom. Although there are many other variables that could have been considered, and hence other sub-divisions, these two were considered dominant in each of the initial areas of contact. Also the length of the questionnaire did not permit the creating of numerous sub-categories. The satisfactory reliability levels shown in Table 1 for all categories and sub-categories, except one, indicate that this particular division of items into categories and sub-categories was appropriate for this study.

The 'FRIENDSHIP' category addressed the issue of playground friendship (or student initiated contact) between students and disabled children. This category was sub-divided into 'Casual Contact' and 'Peer Influence'. 'Casual Contact' focussed on unstructured interaction initiated and controlled by the students, such as playing together at lunchtime. Items 2, 6, 7, 12 and 14 reflected this concept. 'Peer Influence' examined the degree to which students were influenced by what their peers said and did. For example, not playing with a child

because their peers won't play with the child, is representative. Items 5, 11 and 15 explored this concept.

The second category, 'INTERACTION', looked at the interaction within the classroom (implying that this is forced or structured contact as opposed to self-initiated). This category was sub-divided into 'Classroom Contact' and 'Classroom Perceptions'. 'Classroom Contact' focussed on structured contact which is likely to be initiated and/or controlled by the class teacher, such as helping a child with their school work. This concept was reflected by items 1, 3, 8 and 9. 'Classroom Perceptions' looked at the students' views on having a child with special needs in their classroom. For example, did they mind sharing the teacher's time with a child with special needs. Items 4, 10, 13 and 16 were used to investigate this. Two 'lie detectors', items 2 & 7 and 5 & 11, were constructed within the 'FRIENDSHIP' category. A 'lie detector' consists of two items which ask essentially the same question. If students mark similar responses to both items in the 'lie detector' then it is a good indication that they are, in general, responding consistently to the questionnaire.

While the questionnaire was piloted and revised, the limited distribution of the pilot group has implications for its validity and reliability. It is acknowledged that because of the small sample group the questionnaire has low external validity, and hence the results are not generalisable to larger populations. From the pilot study content and face validity appear to be present, however predictive, concurrent and construct validity cannot be accurately determined without readministering the questionnaire and using follow-up procedures on a

Table 1.

Sub-category/Category Reliability Coefficients and Standard Errors of Measurement

<b>Sub-category/ Category</b>	<b>Reliability<sup>a</sup></b>	<b>S.E.M.</b>
<b>Casual Contact</b>	0.69	0.70
<b>Peer Influence</b>	0.67	0.59
<b>FRIENDSHIP</b>	0.79	0.93
<b>Classroom Contact</b>	0.40	0.71
<b>Classroom Perception</b>	0.59	0.77
<b>INTERACTION</b>	0.61	1.08
<b>TOTAL QUESTIONNAIRE</b>	0.83	1.44

<sup>a</sup> Cronbach's Coefficient Alpha

larger population.

Using the LERTAP data analysis system a Cronbach Coefficient Alpha test was performed on the study data to establish the questionnaire's reliability (see Table 1). The 'TOTAL QUESTIONNAIRE' reliability coefficient of 0.83 is significant for this questionnaire considering its limited distribution. All other reliability coefficients,

except for that of the sub-category 'Classroom Contact', were satisfactory for the type of attitude test used. The implication of the lower reliability coefficient for 'Classroom Contact' is that the students may not respond in the same manner to this sub-category if given the questionnaire again. This possible inconsistency should be kept in mind when drawing conclusions from the analysis and discussion on this sub-category.

## RESPONSE SHEETS

Response sheets were designed to allow the students to indicate their responses by simply marking one box for each item. For the Years 4 and 7 students, sheets were made up with boxes labelled: **AGREE**, **agree**, **disagree**, **DISAGREE** (see Appendix C). After piloting with a three point scale (agree, undecided, disagree) it was decided to use a four point scale which forced the students to make a positive or negative decision on how they felt yet also allowed them to respond without having to make a full commitment. For example, a child might mark **agree** when he/she feels "It would depend on the type of disability the child had, but I would probably agree," as opposed to marking **AGREE** when he/she feels "Yes, regardless of the type of disability the child had, I would agree." Capital and small print was used instead of 'strongly agree' or 'strongly disagree'. A test response sheet using the latter proved too 'busy' and daunting. Two boxes labelled "4" and "7" formed the only student identification on the sheet. Students were required simply to mark their year level. As the Year 1 student response sheets were different, the distinction needed only to

be made between the Year 4 and 7 students. All responses were scored, with the value assigned to each response dependent on whether the item was phrased positively or negatively.

Response sheets for the Year 1 students were designed on a two point scale, as a three or four point scale proved to be too abstract for the younger children. The scale was represented by a happy face and a sad face (see Appendix D). Due to difficulties caused by double negatives, that is disagreeing with a negative statement to show agreement with the idea, the faces were not described to the Year 1 students as 'agree' and 'disagree', but rather as "Mr Yes Face" and "Mr No Face". The items were then read to each Year 1 student in their positive or negative form, followed by a prompt to the student in the form of "Do you think you'd be a Mr Yes Face that . . . or a Mr No Face that . . ." For example, item 7 was read as, "I wouldn't want a disabled child to join in my games at lunchtime. (pause) Do you think you'd be a Mr Yes Face, the child can join in your games at lunchtime, or a Mr No Face, you don't want the child to join in your games at lunchtime?" The student then marked the appropriate face. Although lengthy, this method avoided the use of double negatives yet still presented the items in both positive and negative forms to reduce response bias. All responses for the Year 1 students were therefore scored positively (that is 'yes' being a positive response) except for items 1 and 14. These two items, although negatively phrased, do not create double negatives. Responses to items 1 and 14 were scored negatively (that is 'yes' being a negative response).

## PRESENTATION

A presentation was developed to clarify the children's perceptions of disability. This consisted of a collage of fifteen pictures on a poster showing children with special needs with obvious physical differences. The pictures were photocopies from both black-and-white and colour slides and textbooks, depicting relatively neutral views of the children. Included were Cerebral Palsied children, Downs' Syndrome children, a child in a wheelchair, a visually impaired child, some hearing impaired children and a child with leg braces. The presentation was designed to present a standardised identification of disability for the purposes of this questionnaire, not to impose values or teach the children about various handicaps.

Before commencing the interview, each child's attention was drawn to the poster with the explanation that the pictures represented some children who are sometimes called 'dis-abled' because maybe they are not able to use their legs properly, or maybe they are not able to see properly, or maybe they are not able to use their hands properly. Attention was drawn to relevant pictures as appropriate. If the child initiated it, a brief discussion was entered into about the pictures and questions were answered, but the interviewer talked objectively, showing no personal attitudes or preferences.

The description that "sometimes these children are called disabled" was used as a result of some phone calls made by parents in response to the permission letter. A few of these parents pointed out that while their children had been taught about and were aware of



differences between people, including disabilities, the family had never actually used labels such as disabled and handicapped. As the interviewer needed to identify the children as disabled for the purposes of the questionnaire, yet did not wish to teach the children a discriminatory label, it was decided to stress that disabled was derived from 'dis-able' simply meaning 'not able to' and that children like those in the presentation were "sometimes called" disabled.

### **Data Collection**

Once approval of the study had been received from the principal of the school, three classes were selected to participate and a permission letter sent to parents. The letter briefly described the study, what was required of each student and provided an option for the student to not participate. Also enclosed was a permission slip, to be returned to the class teachers. (see Appendices E & F). The participation rate was approximately 80%. Anonymity was ensured and maintained with the only identification on the response sheets being the child's year level. Student's names were used only for purposes of obtaining permission and were not recorded with the response sheets.

Once permission slips were returned, interviewing commenced. Students were withdrawn from their classes one at a time and taken to a private, comfortable room within the school. Individual interviewing ensured confidentiality and reduced the risk of students answering to agree with or show off to friends. The interviewer was introduced to the students by her first name to lessen the 'teacher' stigma and

promote a more relaxed interviewing session. The purpose of the study was explained to each student and they were asked if they were willing to assist. A general discussion about school was then entered into by the interviewer to help put the student at ease and establish some rapport and trust. During the discussion, statements similar in style to those in the questionnaire were introduced and how the student might respond to the statements on the response sheet was discussed. Once the student was confident with the manner of responding, attention was turned to the collage with the explanation that these were the type of children to which the questionnaire would refer. Year 4 and 7 students were asked to mark their year level on the sheet at this stage. A demonstration item was then given, allowing the students to actually mark their response on the sheet. All sixteen items were then presented orally allowing the students time to mark their responses. If a student queried an item the interviewer gave a brief, objective clarification requiring the student to still make their own decision. As there was only one interviewer, problems of different interpretations did not arise. Interviewing took approximately fifteen minutes with each student.

## **RESULTS**

The questionnaire was analysed in terms of the responses made by the students who indicated the degree of acceptance or rejection of each item. The Year 4 and 7 students responded to each item on a four point scale ranging from strongly agree to strongly disagree and presented as: **AGREE/agree/disagree/DISAGREE**. Items were assigned a score of 1 to 4 ranging from the most negative to the most positive response. For example, positively phrased items were assigned a value of 4 for **AGREE**, 3 for **agree**, 2 for **disagree** and 1 for **DISAGREE** while negatively phrased items were assigned a value of 1 for **AGREE**, 2 for **agree**, 3 for **disagree** and 4 for **DISAGREE**. The Year 1 students responded on a two point scale (agree - disagree) represented by a happy face and a sad face. Due to the varied presentation of the questionnaire to the Year 1 students all items, except for 1 and 14, were considered positive and assigned a value of 1 for a sad face (disagree) and 2 for a happy face (agree). Items 1 and 14, which were considered negative, were assigned a value of 2 for a sad face and 1 for a happy face. The S.A.S. Statistical Package was used for the analysis.

To check the consistency of responses a correlation analysis was carried out on items 2 and 7 and items 5 and 11. These pairs of items were similar in content and acted as 'lie detectors'. Individual correlations between the paired items for each year group showed some variation as reported in Table 2. All correlations are significant ( $p < 0.05$ ), except for the Year 1 students' correlation of 0.25 on items 2 and 7, thus indicating that these students may not have been quite as consistent in their responding as were the Years 4 and 7 students.

Table 2.

Correlation Coefficients between Paired Items for each Year Group

	<b>Year 1</b>	<b>Year 4</b>	<b>Year 7</b>
<b>Items 2 and 7</b>	0.25	0.65	0.66
<b>Items 5 and 11</b>	0.70	0.64	0.49

Since the Year 1 student responses were of a dichotomous nature (agree - disagree), the Years 4 and 7 student responses were rescored to fit a two point scale. This allowed for comparisons of average responses between the year groups. Scores of 1 and 2 (negatives) were combined and rescored as 1 and scores of 3 and 4 (positives) were combined and rescored as 2.

Total scores for each of the categories and sub-categories in the questionnaire were calculated by adding together the responses to the individual items that made up the categories. Table 3 shows the categories and sub-categories, the breakdown of items belonging to each category and the possible maximum and minimum values. Due to the mode of scoring, the maximum possible score would represent a positive response from every student, whilst the minimum possible score would represent a negative response from all students.

An analysis of variance was performed on the total scores for each year group in each of the sub-categories ('Casual Contact', 'Peer

Table 3.

Category Breakdowns and Possible Maximum and Minimum Scores

<b>Sub-category/ Category</b>	<b>Items</b>	<b>Possible Score</b>	
		<b>Max<sup>a</sup></b>	<b>Min<sup>b</sup></b>
<b>Casual Contact</b>	2, 6, 7, 12, 14	10.0	5.0
<b>Peer Influence</b>	5, 11, 15	6.0	3.0
<b>FRIENDSHIP</b>	Casual Contact & Peer Influence	16.0	8.0
<b>Classroom Contact</b>	1, 3, 8, 9	8.0	4.0
<b>Classroom Perceptions</b>	4, 10, 13, 16	8.0	4.0
<b>INTERACTION</b>	Classroom Contact & Classroom Perceptions	16.0	8.0
<b>TOTAL QUESTIONNAIRE</b>	All items	32.0	16.0

<sup>a</sup> Positive attitude

<sup>b</sup> Negative attitude

Influence', 'Classroom Contact' and 'Classroom Perceptions') and in the categories 'FRIENDSHIP' and 'INTERACTION', as well as the TOTAL QUESTIONNAIRE, to determine differences among the three year groups.

Table 4 shows the mid-point of each category range (that is the mid-point between the maximum and minimum possible scores), the

Table 4.

Sub-category/Category Mid-points, Mean Scores, F Values & Probability Levels

<b>Sub-category/ Category</b>	<b>mp<sup>a</sup></b>	<b>Yr 1</b>	<b>Mean</b>		<b>F</b>	<b>P</b>
			<b>Yr 4</b>	<b>Yr 7</b>		
<b>Casual Contact</b>	7.5	8.1	9.6	9.4	13.6	<0.001
<b>Peer Influence</b>	4.5	4.2	5.4	5.8	23.0	<0.001
<b>FRIENDSHIP</b>	12.0	12.3	15.0	15.2	24.0	<0.001
<b>Classroom Contact</b>	6.0	6.1	7.3	7.4	18.8	<0.001
<b>Classroom Perceptions</b>	6.0	5.8	7.0	7.3	12.1	<0.001
<b>INTERACTION</b>	12.0	11.9	14.3	14.7	26.1	<0.001
<b>TOTAL QUESTIONNAIRE</b>	24.0	24.2	29.3	29.9	33.9	<0.001

<sup>a</sup>Mid-point between the maximum and minimum possible scores.

mean scores for each year group, the F values and the probability levels. As identified in Table 3, the maximum possible score represents a totally 'positive' or favourable response, while the minimum possible score represents a totally 'negative' or unfavourable response, and the mid-point (shown in Table 4) is a 'neutral' point between the two extremes. Naturally the actual means range between the maximum and minimum possible scores as either of these perfect

scores would only result when every student in the year group responded in exactly the same way. This provides a range of attitudes between these two scores. For example, in the sub-category of 'Casual Contact' which has a maximum possible score of 10.0 and a minimum possible score of 5.0, a score of 6.4 is quite 'negative' while a score of 9.7 is very 'positive', and a score of 7.5 is in the middle, that is 'neutral'.

For all analyses there was a significant difference ( $p < 0.001$ ) between the Year 1 student responses and the Years 4 and 7 student responses. A comparison of the category and sub-category means for each year group, showed the Year 1 students to have lower mean scores than the Years 4 and 7 students. The Year 7 students generally had the highest mean scores over all. All the Years 4 and 7 student mean scores indicated positive attitudes while the Year 1 student mean scores indicated neutral attitudes for all categories and sub-categories except 'Casual Contact' and 'Peer Influence' which showed positive and negative attitudes respectively.

## **DISCUSSION**

Implications of the data will be discussed in this section, looking first at the Years 4 and 7 student results and then at the Year 1 student results. Years 4 and 7 will be discussed together as there were no significant differences between these two groups. Data will be examined and discussed by categories and sub-categories. Possible variables influencing student attitudes will also be identified. Recommendations for the development and introduction of 'Integration Programmes' will then be made.

The attitudes of the Year 1 students in this study differed significantly from those of the Years 4 and 7 students. These results enable the null hypothesis to be rejected, therefore accepting the hypothesis that there is a variation in attitude between the year groups. This variation is evident if data from the Year 1 students is compared with data from the Years 4 and 7 students collectively.

An evaluation of the total scores for the questionnaire show the Year 1 students to have almost neutral attitudes. As there can be no exact cut off point between positive and negative attitudes due to the subjective nature of the study, any score close to the mid-point of the sub-category/category range may be considered neutral, or indifferent, and is not necessarily favourable nor unfavourable. The Year 4 students have quite positive attitudes towards peers with special needs and the Year 7 students have slightly more positive attitudes again. This trend is similar to that found in the study by Towfighy-Hooshyar and Zingle (1984) where positive attitudes



appeared to increase with age.

The Years 4 and 7 students had very favourable attitudes in all areas surveyed. The Year 7 students displayed the more positive attitudes in all categories and sub-categories except 'Casual Contact' where the Year 4 students scored more positively. The mean scores of the two year groups were similar in all categories and sub-categories. These results reinforced the fact that no significant difference was evident between these two groups. A summary of the findings is presented in Table 5.

The Years 4 and 7 students responded very positively to the 'FRIENDSHIP' category, showing favourable attitudes. The fact that the sub-category 'Casual Contact' elicited the most favourable attitudes from the Year 4 students perhaps indicates that this is a very sociable age. Increased informal contact between peers may provide more knowledge and experience of people's differences thus lessening the emphasis placed on disabilities. The sub-category 'Peer Influence' elicited the most favourable attitudes from the Year 7 students. Because of the nature of the items in this sub-category, such a response would imply that the students' personal contact with children with special needs is not greatly influenced by what their peers think of them. Overall it appears that these two groups of students are quite accepting of disabled children in their school when they are able to initiate and control the contact.

Although the two groups responded quite positively to the 'INTERACTION' category also, their attitudes were slightly less

Table 5.

Summary of Attitudes for each Year Level

<b>Sub-category/ Category</b>	<b>Attitude</b>		
	<b>Year 1</b>	<b>Year 4</b>	<b>Year 7</b>
<b>Casual Contact</b>	positive	very positive	very positive
<b>Peer Influence</b>	negative	positive	very positive
<b>FRIENDSHIP</b>	neutral	very positive	very positive
<b>Classroom Contact</b>	neutral	positive	very positive
<b>Classroom Perceptions</b>	neutral	positive	positive
<b>INTERACTION</b>	neutral	positive	very positive
<b>TOTAL QUESTIONNAIRE</b>	neutral	very positive	very positive

favourable than for the 'FRIENDSHIP' category. The sub-category 'Classroom Contact' brought out favourable attitudes in both year groups implying that they are willing to accept having a disabled child in the classroom with them. The sub-category 'Classroom Perceptions' elicited the least favourable attitudes implying that knowledge of disabled children's abilities and the experience of having them in a regular classroom is lacking, particularly with the Year 4 students. Overall, it appears that while these students are quite accepting of having disabled children in their class, they are uncertain as to what

the situation would involve. Interestingly, every Year 4 and Year 7 student responded in agreement to the interview item that asked if they would like to learn more about disabled children's problems.

The Year 1 students on the other hand, had significantly different attitudes from the Years 4 and 7 students. While no attitudes were excessively negative, they were all less favourable than those of the other two years. Again, responses to the 'FRIENDSHIP' category were more positive than responses to the 'INTERACTION' category, yet both could be considered neutral. The sub-category 'Casual Contact' elicited the most favourable attitudes from the Year 1 students. At this age students are usually very friendly and creative in their games and it appears that this is the area in which they are most willing to accept having disabled children with them. In contrast, the sub-category 'Peer Influence' provoked the most negative attitudes from the Year 1 students indicating that they are greatly influenced by what their regular peers do and say. These two categories appear to contradict each other. The existing situation is therefore likely to be that the students are willing to accept disabled children into their games as long as the whole group accepts and plays with them. The students do not want to do something different to the rest of the group and may feel a little apprehensive about playing with disabled children on their own.

Overall, the Year 1 students' responses to the 'INTERACTION' category showed neutral attitudes towards peers with special needs. The sub-category 'Classroom Contact' did elicit positive attitudes, yet again they were low enough to be considered neutral. Again this may

be influenced by their concern with their peers. For example, a Year 1 student may not mind working with a disabled child in a group yet would not like to be singled out to help the child with his/her work. Responses to the sub-category 'Classroom Perceptions' again showed neutral attitudes, yet verging on negative, indicating that the Year 1 students do not know exactly what to expect of a disabled child. They may be unsure of what disabled children can and cannot do, how much help they need and how they can co-operate and interact in a regular classroom.

Each of the classes involved in the data collection had one or two ESC students, although none of these children had physical disabilities. Therefore, the students interviewed would have some familiarity with children from the ESC and this experience would provide a basis for their responding. The Year 1 teacher had discussed 'being friendly' with the class and the differences between people, but had not specifically identified disability or handicaps. The Years 4 and 7 teachers had not talked with their classes about disabilities although the Year 7 students had covered a topic about handicaps in Health the previous year.

The variation in attitude found between the Year 1 students and the Years 4 and 7 students is likely to be caused by their differences in age. Due to the complexity and sensitive nature of the subject area studied, a number of variables related to the age differences between the students may have influenced their responses. Such variables should be discussed before recommendations can be made.

One of the first factors to be considered as an influence on attitudes is the actual identification or recognition of disabled children. Due to general immaturity and lack of experience many six and seven year old students may have never actually been in contact with a disabled person. Alternatively when they have seen a disabled person they may have simply considered him/her to be different in the same way that tall and short people are different. If the students cannot identify the subject of the questionnaire, that is a disabled child, or cannot see them as being different from other children then their attitudes, and hence responses, will be influenced by these views. The Year 1 students occasionally demonstrated a more vague conceptualization of disability while viewing the presentation which was designed to help clarify the concept. More Year 1 students asked questions or made comments about the displayed poster than did Year 4 and 7 students.

On the other hand, knowledge about and contact with, disabled people will also influence attitudes. Through meeting disabled people or seeing them in the street or on the television the older students in particular may have preconceived opinions and attitudes which guided their responses. These forms of 'extra experience' may account for the more positive attitudes in the Years 4 and 7 students.

Discrimination, whether it is between the sexes, against races, towards handicapped individuals or whatever, is actively discouraged in Western societies. The older the students, the more likely they are to have had a fair amount of contact with agencies such as schools and the media which promote these anti-discriminatory values. The Year 4

and 7 students would have had far more exposure to societal beliefs and values than the Year 1 students, and would therefore, be more aware of socially acceptable and socially desirable behaviours. It then becomes likely that their positive responses are extensions of their knowledge of socially desirable attitudes.

The school in which the research was conducted places emphasis on friendship and caring between students and staff, so the older students, even if ignorant of society's values, may be swayed to answer in line with the school's beliefs. An interesting point in relation to this is that every Year 4 and Year 7 student, but one, agreed to the interview statement that it does not matter if a child is disabled he/she can still be your friend. (All but two of the Year 1 students also agreed to the statement.) Even if these responses were based more on the school's value system than on personal attitudes, it shows the students know how they should be acting, and through continued reinforcement it may become practice.

The Year 1 students in this instance may have been responding with attitudes of indifference as they have not yet been influenced by the values espoused in the school or by society. Indifference is not necessarily an undesirable attitude. In some instances more harm is done by 'over caring' with inappropriate or insulting actions. For example, a student who is indifferent to a child's disabilities may simply initiate a conversation or game as they would with any other child, even if the disabled child cannot fully participate, while an over conscientious student may 'baby talk' the child, pick them up, help them when assistance is not required or generally behave unnaturally, which

may be embarrassing or degrading for the disabled child.

It could be argued that the variation in attitudes found between the Year 1 students and the Years 4 and 7 students has resulted through the use of different response sheets. It is felt, however, that because the Year 1 students are more ingenuous they are still likely to answer honestly on a two point scale, therefore nullifying any differential. A two point scale would not have been as suitable for the older students as they may have felt restricted or felt that they were making a rigid commitment.

Alternatively, the variation in attitudes could be contributed to, or exaggerated by, the Year 1 students' slight inconsistency in responding, as measured by the 'lie detecting' items. One explanation for the inconsistency could be the inexperience of the Year 1 students. It may be the first time they have used a response scale like this and so are less familiar with its functioning. Inconsistency in responding cannot be fully accounted for and must therefore be acknowledged as an influencing variable.

## **Recommendations**

There will always be factors influencing this type of study, for example the influence of societal values, yet, while acknowledging these influences, significant implications can be drawn from the results. One recommendation from this study for 'Integration Programmes' is the need to teach students about disabilities. However,

it is not just a case of preparing the students for what a disabled child will be like, they must also be taught what a disability is, how a child becomes disabled, what a disabled child can and cannot do, why special furniture or fittings are needed, and so on. As Donaldson (1980) explained, knowledge about disability can reduce an individual's uneasiness and uncertainty when in the presence of a handicapped person and, if presented with enough information, may change any stereotypic images presently held. Techniques suggested by Donaldson include contact with or exposure to disabled persons, information about disabilities and disability simulation. Data from the sub-category 'Classroom Perceptions' indicate that this type of information is distinctly lacking and the responses to one particular item show that the students are interested and would like to learn more about disabilities.

A second recommendation from this study, for the design of 'Integration Programmes', is to introduce the children to one another through unstructured group activities and allow time for friendships to emerge without singling out the disabled child as different or special. Evans and Simmons (1987) identified, amongst other things, the need for preparing the students and initiating integration activities gradually. Data from the sub-categories 'Casual Contact' and 'Classroom Contact' also support this idea. It would be counter-productive if students looked upon playing with a disabled child as a chore or a favour for the teacher. More structured contact, such as sitting next to a disabled child or helping them with their schoolwork, can be introduced slowly once acceptance in informal activities is established. Activities should be narrowed down from



whole class to small group then eventually to one-to-one. Initially this type of introduction will be very time consuming, but over the years as students are likely to have experienced other disabled children in their previous classes the process will become quicker and less defined.

This research study indicates that the middle primary years are appropriate for the implementation of 'Integration Programmes'. The data show Year 4 and Year 7 to be when student attitudes are more positive. These positive attitudes are likely to be developed with age through the students' experiences, as discussed earlier. However if disabled children are not integrated until Year 4 for example, then the regular students would not get any experience with disabled children until then, hence changing their reactions. It would thus seem to be more appropriate, and hence recommendable, to promote integration as early as possible, even at the pre-primary level. This would enable the students to gain experiences and start building positive attitudes before they are influenced otherwise by peers or society. Also introducing a disabled child to a school in the later years singles them out and identifies them as being different. If students progress right through school with disabled children, then hopefully one day they will not even be seen as 'disabled'.

## **Conclusion**

This study identified a variation in attitudes, towards a special type of peers with special needs, between the students in Year 1 and

the students in Years 4 and 7 of a specific primary school. The Year 1 students had relatively neutral attitudes while the Years 4 and 7 students had quite positive attitudes. While these results are favourable for successful integration, three recommendations were made to further develop the students' positive attitudes. Firstly, students should be provided with information about disability, secondly, children with special needs should be introduced to the school gradually through unstructured, group activities, and lastly, integration should begin as early as possible.

## **SUMMARY**

A sixteen item questionnaire was constructed to identify the attitudes of primary school students towards their peers with special physical needs. The questionnaire was divided into two categories, 'FRIENDSHIP' and 'INTERACTION', which were divided into two sub-categories of 'Casual Contact' and 'Peer Influence', and 'Classroom Contact' and 'Classroom Perceptions' respectively. Two pairs of 'lie detecting' items were also included.

The questionnaire was administered on a one-to-one basis to twenty Year 1 students, twenty-seven Year 4 students and twenty-five Year 7 students in a Perth metropolitan primary school. The students responded to items by marking rating scales which were then scored. A correlation analysis and an analysis of variance were then performed using the S.A.S. Statistical Package.

The Year 1 students had significantly different attitudes towards peers with special needs than the Years 4 and 7 students. Overall, attitudes of the Year 1 students were more neutral. Results of the sub-category 'Casual Contact', within the 'FRIENDSHIP' category, showed the most favourable attitudes for each of the year groups, indicating a willing acceptance of disabled children in unstructured, self initiated activities. The Year 1 students appeared to be strongly influenced by their peers while the Years 4 and 7 students were much less concerned with the thoughts and actions of their peers.

Results of the sub-category 'Classroom Perceptions', within the

'INTERACTION' category, showed the least favourable attitudes for each of the year groups. In fact, the Year 1 student responses were neutral to the entire 'INTERACTION' category. Knowledge appears to be lacking as to what disability is and how disabled children will function in a regular school. Unstructured interaction is preferred by the students to structured interaction.

Recommendations from these results for 'Integration Programmes' are; to teach the students about disability, to integrate disabled children into unstructured, group activities with a gradual transition to more structured activities and working on a one-to-one basis, and to begin integration in Year 1 or even earlier.

This study has shown results pertinent to the specific school in which the data was collected. It provides an example of local trends which may aid the development of further studies in this field. Large scale studies are very costly and time-consuming therefore the repetition of a study similar to this one, in a selection of other metropolitan and country schools, would provide much useful data for the development of integration policies. Such research would aid the successful social integration of children with special needs into Education Support Centres and regular schools.

**REFERENCES**

- Beazley, K. E. (1984). Education in Western Australia. Perth: Government Printer.
- Bricker, D. D. (1978). A rationale for the integration of handicapped and non-handicapped preschool children. In M. J. Guralnick (Ed.), Early intervention and the integration of handicapped and non-handicapped children (pp.3-26). Maryland: University Park Press.
- Brinker, R. P. & Thorpe, M. E. (1986). Features of integrated educational ecologies that predict social behaviour among severely mentally retarded and non-retarded students. American Journal of Mental Deficiency, 19, 150-159.
- Casey, K. (1978). The semantic differential technique in the examination of teacher attitudes to handicapped children. The Exceptional Child, 25, 41-52.
- Coben, S. S. & Zigmond, N. (1986). The social integration of learning disabled students from self-contained to mainstream elementary school settings. Journal of Learning Disabilities, 19, 614-618.

- Cole, D. A., McQuarter, R. J., Meyer, L. H. & Vandercook, T. (1986). Interactions between peers with and without severe handicaps: Dynamics of teacher intervention. American Journal of Mental Deficiency, 91, 160-169.
- Donaldson, J. (1980). Changing attitudes toward handicapped persons: A review and analysis of research. Exceptional Children, 46, 504-514.
- Espiner, D., Wilton, K. & Glynn T. (1985). Social interaction and acceptance of mildly retarded children in a mainstream special educational setting. Australian Journal of Special Education, 9(2), 8-15.
- Evans, B. & Simmons, K. (1987). Exercises in integration. British Journal of Special Education, 14, 115-117.
- Gresham, F. M. (1982). Misguided mainstreaming: The case for social skills training with handicapped children. Exceptional Children, 48, 422-433.
- Henerson, M., Morris, L. & Fitz-Gibbon, C. (1987). How to measure attitudes. California: SAGE Publications.
- Higgs, R. W. (1975). Attitude formation - Contact or information. Exceptional Children, 41, 496-497.

- Horne, M. D. (1985). Attitudes toward handicapped students: Professional, peer and parent reactions. New Jersey: Lawrence Erlbaum Associates.
- Johnson, A. B. & Cartwright, C. A. (1979). The roles of information and experience in improving teachers' knowledge and attitudes about mainstreaming. The Journal of Special Education, 13, 453-461.
- Kidder, L. H. & Judd, C. M. (1986). Research methods in social relations. New York: Holt, Rinehart and Winston.
- Lehrer, A. (1983). The effects of mainstreaming on stereotypic conceptions of the handicapped. The Journal of Educational Research, 77, 94-99.
- Ministry of Education (1987). Better schools in Western Australia - A programme for implementation. Perth: Government Printer.
- Oppenheim, A. N. (1986). Questionnaire design and attitude measurement. Hants: Gower Publishing Company Limited.
- Orlansky, M. D. (1979). Active learning and student attitudes towards exceptional children. Exceptional Children, 46, 49-52.
- Osgood, C. E., Suci, G. J. & Tannenbaum, P. H. (1975). The measurement of meaning. Urbana: University of Illinois Press.

- Poorman, C. (1980). Mainstreaming in reverse with a special friend. Teaching Exceptional Children, 12, 136-142.
- Ray, B. M. (1985). Measuring the social position of the mainstreamed handicapped child. Exceptional Children, 52, 57-62.
- Sabornie, E. J. (1985). Social mainstreaming of handicapped students: Facing an unpleasant reality. RASE, 6(2), 12-16.
- Sandberg, L. D. (1982). Attitudes of non-handicapped elementary school students towards school-aged trainable mentally retarded students. Education and Training of the Mentally Retarded, 17, 30-34.
- Siperstein, G. N., Bopp, M. J. & Bak, J. J. (1978). Social status of learning disabled children. Journal of Learning Disabilities, 11, 98-102.
- Towfighy-Hooshyar, N. & Zingle, H. W. (1984). Regular-class students' attitudes towards integrated multiply handicapped peers. American Journal of Mental Deficiency, 88, 630-637.
- Warren, R. A. J. (1985). A review of attitudes and disability. Australian Journal of Special Education, 9(2), 28-32.
- Westervelt, V. D. & McKinney, J. D. (1980). Effects of a film on nonhandicapped children's attitudes towards handicapped children. Exceptional Children, 46, 294-296.



**APPENDIX A : Questionnaire**

1. Disabled children should do their schoolwork in separate groups from the rest of the class.
2. I wouldn't mind playing with a disabled child at playtime.
3. I would like to help some disabled children with their schoolwork sometimes.
4. It's alright if some disabled children in my class get extra time with the teacher.
5. If my friends won't play with a disabled child then I won't play with the child either.
6. I would like to go on an excursion with some disabled children.
7. I wouldn't want a disabled child to join in my games at lunchtime.
8. I wouldn't mind having to sit next to a disabled child in my classroom.
9. I would like to learn more about these children's problems, for example, why can't some children walk?
10. If a disabled child needs lots of extra help then they shouldn't be in my classroom.
11. If I was playing with a disabled child and my friends teased me about it I would still play with the child.
12. It doesn't matter if a child is disabled, they can still be your friend.
13. All disabled children are not very good at their schoolwork.
14. I get embarrassed when a disabled child is near me.
15. If I had a disabled brother or sister I wouldn't tell my school friends.
16. I think it's a good idea to have disabled children in a regular school.

## **APPENDIX B : Questionnaire Categories**

### **FRIENDSHIP**

#### **Casual Contact:**

- 2. I wouldn't mind playing with a disabled child at playtime.
- 6. I would like to go on a school excursion with some disabled children.
- 7. I wouldn't want a disabled child to join in my games at lunchtime.
- 12. It doesn't matter if a child is disabled, they can still be your friend.
- 14. I get embarrassed when a disabled child is near me.

#### **Peer Influence:**

- 5. If my friends won't play with a disabled child then I won't play with the child either.
- 11. If I was playing with a disabled child and my friends teased me about it I would still play with the child.
- 15. If I had a disabled brother or sister I wouldn't tell my school friends.

### **INTERACTION**

#### **Classroom Contact:**

- 1. Disabled children should do their schoolwork in separate groups from the rest of the class.
- 3. I would like to help some disabled children in my class with their schoolwork sometimes.
- 8. I wouldn't mind having to sit next to a disabled child in my classroom.
- 9. I would like to learn more about these children's problems, for example, why can't some children walk?

#### **Classroom Perceptions:**

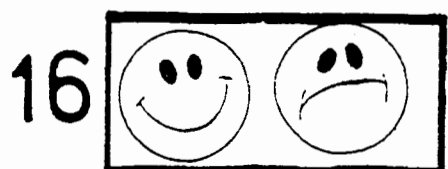
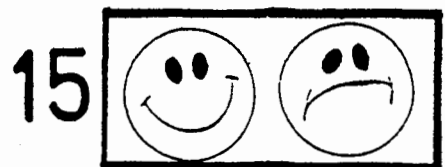
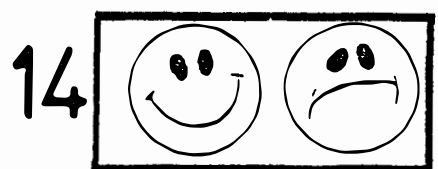
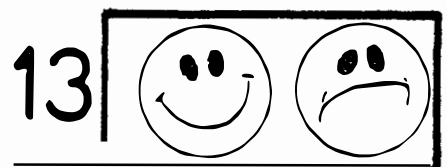
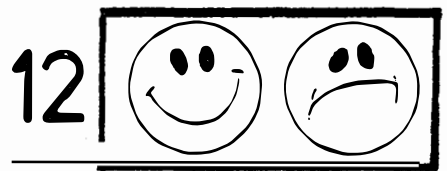
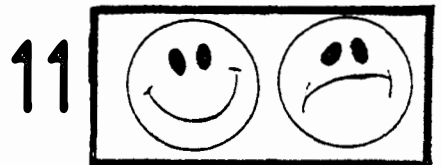
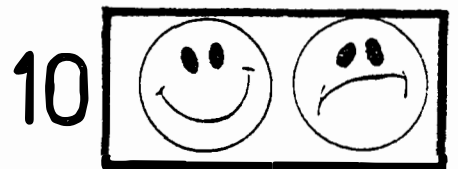
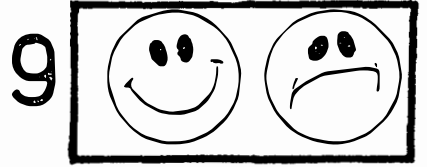
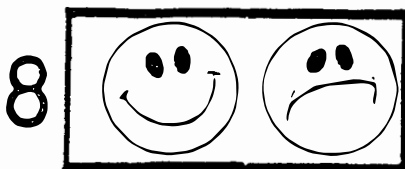
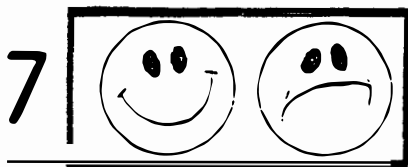
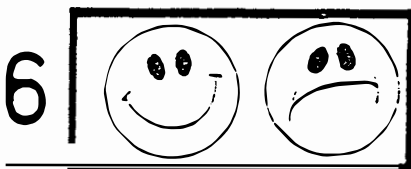
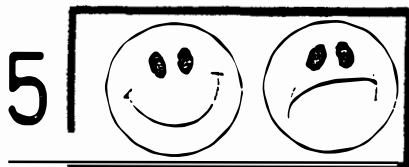
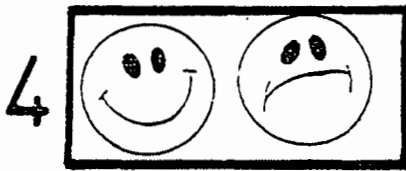
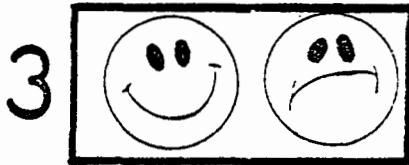
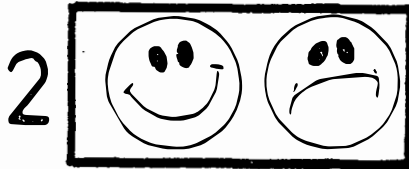
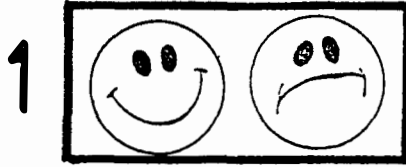
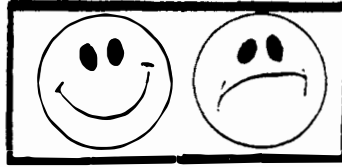
- 4. It's alright if some disabled children in my class get extra time with the teacher.
- 10. If a disabled child needs lots of extra help then they shouldn't be in my classroom.
- 13. All disabled children are not very good at their schoolwork.
- 16. I think it's a good idea to have disabled children in a regular school.

4	7
---	---

**APPENDIX C : Years 4 & 7 Response Sheet**

*	AGREE	agree	disagree	DISAGREE
1	AGREE	agree	disagree	DISAGREE
2	AGREE	agree	disagree	DISAGREE
3	AGREE	agree	disagree	DISAGREE
4	AGREE	agree	disagree	DISAGREE
5	AGREE	agree	disagree	DISAGREE
6	AGREE	agree	disagree	DISAGREE
7	AGREE	agree	disagree	DISAGREE
8	AGREE	agree	disagree	DISAGREE
9	AGREE	agree	disagree	DISAGREE
10	AGREE	agree	disagree	DISAGREE
11	AGREE	agree	disagree	DISAGREE
12	AGREE	agree	disagree	DISAGREE
13	AGREE	agree	disagree	DISAGREE
14	AGREE	agree	disagree	DISAGREE
15	AGREE	agree	disagree	DISAGREE
16	AGREE	agree	disagree	DISAGREE

**APPENDIX D :**  
**Year 1 Response Sheet**



**APPENDIX E : Permission Letter**

Western Australian College  
of Advanced Education  
Churchlands Campus  
9th August, 1989

RESEARCH PROJECT AT  
CREANEY PRIMARY SCHOOL

Dear \_\_\_\_\_,

Some years ago the Beazley Report made a number of recommendations for changes to the education system in Western Australia. One of these recommendations involved the integration of children with special needs into regular schools. Although integration is now an accepted policy within the Ministry of Education, considerable monitoring and evaluation needs to be carried out in schools to ensure that integration programmes are being implemented successfully and that all children will benefit from the new arrangements.

A research project is being undertaken at Creaney Primary School by myself, a Bachelor of Education (with Honours) student from the Western Australian College of Advanced Education, to assess student attitudes towards the integration of children with special needs. It is a formal study, under the supervision of the College, and will conclude with a written report of the findings.

The project involves presenting individually to ninety randomly selected students a short, oral questionnaire allowing the students to mark their responses on a response sheet. Names will not be recorded on the sheets and strict confidentiality of responses will be maintained at all times. The interviewing will be conducted in the school between the 16th August and the 6th September, 1989, and each participating child will be withdrawn from their classroom for one session of approximately twenty minutes.

Your son/daughter \_\_\_\_\_ has been selected as one of the ninety students to participate in the project. Participation is not compulsory and either you or your child may elect not to participate for any reason. I ask that you give it your careful consideration as your child's participation will be aiding the assessment and development of future education in Western Australia.

Please complete the permission slip attached and return it to your child's teacher by Tuesday, the 15th August. If you have any questions regarding your child's participation please feel free to contact me on 344 2201 to discuss the project.

Thank you in anticipation for your co-operation.

Yours sincerely,

Natalie Robins (Miss)

**APPENDIX F : Permission Slip**

This is to acknowledge that \_\_\_\_\_

may participate

may not participate

(Please ✓ appropriate box)

in the research project being conducted at Creaney  
Primary School.

Signed \_\_\_\_\_

Parent/Guardian