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Changing Attitudes of Children  
in Grades Three to Six  
Towards Persons with Disabilities  
Via  
the "Kids on the Block" program

By

Valerie A. Baker

B.A. (Hons.) University of Waterloo 1980

THESIS

Submitted to the Department of Psychology  
in partial fulfilment of the requirements

for the Master of Arts degree

Wilfrid Laurier University

1991

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### Dedication

I would like to dedicate this thesis in loving memory of my mother, Olive Mae Baker, who passed away on November 9, 1985, after a courageous battle with cancer. She always knew I could do whatever I set my mind to, and, of course, being a mother, she was always right.

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Most notably I also extend my appreciation to the principals, teachers, and all the children who took part in this project. Without them, there would have been no evaluation. I sincerely enjoyed my time with the children and their teachers and thank them immensely for contributing to this endeavour.

This thesis would never have been completed without the aid of my two trusty school assistants. Jill Somerville, assisted with the organization and categorization of the qualitative portion of the research. Nancy La Pointe spent many hours assisting me with various tasks. There were many times when I would have given up if it hadn't been for her support and encouragement. I would like also to thank Fred

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I wish to also thank Dianne Boston, the rest of the staff, and the "Kids on the Block" committee at the Independent Living Center of Waterloo Region. They always kept believing in me, even on days when I didn't believe in me. A special note of appreciation has to go to our outgoing executive director, Roy Steckley, and our present executive director, Fred Kinzie. Without their ongoing, quiet, but affirmative support, I could never have managed to finish this thesis with my sanity reasonably intact.

Last, but certainly not least, I would like to thank my attendants, Ada Vandenberg, Sylvia Roorda, Mathew Roorda, David Vandenberg, and Rachel Vandenberg. They were the people who experienced, with me, my highs and lows, and the sometimes utter chaos of a house with books, and research data everywhere.

## Abstract

The purpose of this thesis was to evaluate the "Kids on the Block" program in the Waterloo Regional schools as part of the work of the Independent Living Center of Waterloo Region. The "Kids on the Block" program was designed to teach school age children about handicapped children and adults. The main emphasis of the program is to foster the development of positive attitudes towards persons with disabilities. As well, the "Kids on the Block" program also provides knowledge about various disabilities. This research attempted to study the impact of the "Kids on the Block" program on children in grades three to six, by studying changes in attitudes, as well as the amount of knowledge gained.

Six schools were involved in the process, including all classes between grades three and six. Three of the schools saw the four-week presentation of the "Kids on the Block" program. Two of the schools acted as a control group, and were not exposed to the program. One school had seen the program a year ago, and thus was able to provide some information regarding the long term effects of the "Kids on the Block" program.

The study was conducted in three stages. The three stages involved a pretest and two follow-up post-tests. The pretest was assigned one week prior to the four-week "Kids on the Block" program. The first post-test was assigned the



day after the four-week program. At this time, participants who had just seen the program also completed a subjective program evaluation form. Approximately one month later the second post-test was presented. The children who had seen the program one year ago and the children who had never seen the program were assigned the same three testing sessions on the same dates as the program participants.

Results revealed that the "Kids on the Block" program does have a short term positive effect on children in grades three to six, particularly on knowledge of disabilities. However, the long term effects of the program appeared to be weak and unclear. This indicates a need for further development of the "Kids on the Block" program and development of a long term follow-up strategy. Reliability was moderate across the forms, ranging from .34 to .70. Multiple regressions supported the validity of this measure in concordance with previous research. The factors influencing the success of the program included the grade of the child, and whether or not the child knew a person with a disability. Qualitative data indicated that the children enjoyed the puppet presentations, and believed that they learned a great deal from the puppets.

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## Introduction

The purpose of this thesis is to aid The Independent Living Centre of Waterloo Region in evaluating their "Kids on the Block" program. The program tries to increase the knowledge that children have about various disabilities, and also tries to help them to develop more positive attitudes towards children with disabilities. Therefore an evaluation was conducted to assess the effects of this program in the school system.

The "Kids on the Block" program consists of a troupe of eleven life-size puppets, eight of which represent children with various disabilities. The disabilities represented include: blindness, deafness, learning disability, mental retardation, emotional impairment, cerebral palsy, epilepsy, and leukaemia. The other three, including one who is a sibling of the puppet with cerebral palsy, represent children without disabilities who interact with the others in short skits examining the problems and concerns associated with each disability. The puppets are believed to be useful in helping to create positive attitudes toward real people with disabilities within the community.

All the "Kids on the Block" come in kits. Each kit includes six or seven 3-foot-high hand-and-machine crafted puppets, props, scripts, a manual with operating instructions and workshop suggestions, and cassette recordings of the scripts.

The puppets are made of velour, corduroy, foam, yarn, thread, cardboard and glue. They must be treated carefully, for long-term durability cannot be guaranteed. Other equipment needed outside of the actual kit includes a stage/table, black (beige for summer) costumes for the puppeteers, workshop materials (i.e., white canes, blindfolds) and trunks or sturdy dufflebags to house the puppets. A bright table cover and various large pieces of fabric are suggested for backstage use.

All "Kids on the Block" puppet performances are presented in the Japanese tradition of puppetry called Bunraku. The English translation of this means "you can see us". The audience is able to see the puppeteers behind the puppets. Although they see their lips and bodies move, the persons behind, who are generally dressed completely in black, are very quickly forgotten. This happens because the puppets are so big, colourful, and lively.

In the spring of 1988 another dimension was added to the program. This is the Speakers' Bureau, consisting of persons who, themselves, have different disabilities. After a program consisting of a series of usually three different presentations, with two different disabilities represented per show, a speaker will go and discuss his/her own personal life experience of living with a disability. There also exists the possibility of doing a complete show in one session instead of in a four-week series. Presentations of

this type may be done for community groups such as church congregations, boy scouts, or senior citizens' centres, if the group feels that it is not necessary to do a four-week session. The greatest difficulty with this is that because everything must be done quickly, it hardly does the program justice, since there is usually time for only two skits, with only two disabilities represented. It is hoped that through the Speakers' Bureau an awareness and sensitivity can be created towards all people who live in our communities. I have been involved with the Speakers' Bureau since its inception in 1988. I have cerebral palsy, which has left me with poor coordination and a speech impairment. I am quite mobile with the use of an electric wheel chair. I became involved as a speaker because I have always enjoyed teaching and working with young children. The primary reason this research came about was that I was seeking a challenge and an opportunity for growth. Realizing that this was the perfect opportunity to get some practise in real community program evaluation, I approached the co-ordinator about taking on the challenge, and she agreed that the evaluation needed to be done anyway.

The focus of this project was on the impact that the "Kids on the Block" program has in assisting school-aged children in the Waterloo Region to develop more positive attitudes towards children with disabilities. There are now many, many children with disabilities being integrated into



regular classrooms and schools. It is hoped that this program will make the transition easier for all children, both those with and those without disabilities.

### Literature Review

In order to form a sound basis for this study the literature review will cover the following topics: working definitions; Goldenberg's theory of oppression; mainstreaming; components of attitudes; theories of attitude formation and change; attitudes toward students with disabilities; measures of attitudes towards persons with handicaps; research pertaining to the "Kids on the Block" program; and program evaluation issues.

#### Some Working Definitions

The Health and Welfare Canada report Disabled Persons in Canada (1980) provided the following definitions of a handicapped or disabled person:

Section 504 of the U.S. Rehabilitation Act (1973) defines a handicapped person as a person with a mental or physical impairment which substantially limits one or more of his major life activities (p.3).

The United Nations Declaration on the Rights of Disabled Persons (1975) defines a disabled person as any person unable to ensure by himself or herself wholly or partly the necessities of a normal individual and/or social life, as a result of a deficiency, either

congenital or not, in his or her physical or mental capabilities (p.3).

This report also states that handicaps are not characteristics of individuals but are socially defined. Thus, a handicap represents the social and environmental consequence to the individual stemming from the presence of an impairment or disability. There are persons without organic defect or impairment who cannot function because of disordered thought or feelings of low self-esteem. On the other hand there are individuals with severe or multiple impairments arising from a variety of conditions, who exhibit remarkable stamina and who are high level performers. Baker, Bussard, Johnson and Rhodes (1981) stated that handicapped persons represent a composite picture involving various degrees of functional limitation and/or activity restriction, regardless of the origin or underlying major condition. However, handicapped people generally believe that they are "people first" and do not wish to be exempted from the normal social, economic and cultural roles of other citizens.

A framework for analyzing the situation of handicapped persons in the wider society is important for the conceptualization and study of any intervention process. Such a framework is provided by the analysis of oppression of all such marginalized groups which has been presented by Goldenberg (1978). This thesis draws on Goldenberg's work

to develop a framework within which children's attitudes towards their peers with disabilities will be measured. It is felt by this researcher that the roots of oppression start at a very early age and can be seen as negative attitudes towards those who are different. To counteract this, the "Kids on the Block" program tries to convey the message to all children that, although some are different, all are equal.

#### Goldenberg's Theory of Oppression

Goldenberg (1978) stated that:

"Oppression is, above everything else, a condition of being, a particular stance one is forced to assume with respect to oneself, the world and the exigencies of change. It is a pattern of hopelessness and helplessness, in which one sees oneself as static, limited, and expendable. People only become oppressed when they have been forced (either subtly or with obvious malice) to finally succumb to the insidious process that continually undermines hope and subverts the desire to "become." The process, which often is self-perpetuating and self-reinforcing, leaves in its wake the kinds of human beings who have learned to view themselves and their world as chronically, almost genetically estranged. The end product is an individual who is, in fact, alienated, isolated, and insulated from the society of which he nominally remains a member. He and his society are spatially joined but psychologically separate: they inhabit parallel but nonreciprocal worlds." (p.2)

When considering persons with disabilities it is easy to see how they have come to fit the mould of oppression. For decades or even centuries they have

been dealt with as a separate part of society. They have gone to "special" schools, worked in "sheltered" workshops, and have even been housed in "special" institutions. The one overwhelming problem with this was that it did not allow persons with disabilities to be involved in the mainstream of life. As a result society came to shun them. To have a child with a disability was a disgrace. Non-disabled children were taught to stay away, and not to talk to or play with the child with a disability because they might catch "it," meaning the disability. Thus, the vicious circle started. Persons with disabilities were locked away from society, so society did not deal with them as total human beings, and because society feared what it did not know, it locked them away.

Wolfensberger (1972) stated:

"In the past, some kinds of deviance were seen to be the work of the devil or other malignant forces. As such, the deviant person was perceived as evil too, and was often persecuted and destroyed in order to protect society. Destruction of the deviant has often been advocated - even today - for reasons related to self preservation or self protection. ...

"As a more humane alternative to destruction, the deviant person who is being perceived as unpleasant, offensive, or frightening can be segregated from the mainstream of society and placed at its periphery. We have numerous examples of this: We segregate the Indian in reservations, and the Negro in the ghetto; the aged are congregated in special homes, ostensibly for their own good, and these homes are often located at the periphery

of, or removed from, population centers; the emotionally disturbed and the retarded are commonly placed in institutions far in the countryside; and we have or (have had) 'dying rooms' in our hospitals to save us the unpleasantness of this deviancy.

Deviance can be seen to be someone's else's fault or perhaps a sign that the deviant person's parents had sinned and were therefore being punished by the Lord. The belief that blemished offspring are a punishment for parental wrongdoing appears to be deeply ingrained in the unconscious of the people." (p.24)

Although the attitudes of today have softened somewhat toward persons with disabilities, there are still subtle forms of oppression taking place. Children can be the most adaptable of human beings, but they can also be the cruellest when they do not understand a situation, especially when it relates to other children. Whereas Goldenberg (1978) wrote his theory of oppression as it relates to the adult world, this researcher feels that many of his concepts can and do apply to children, especially when "normal" children are dealing with those children who are different from themselves. Although the Speakers' Bureau consists of adults with disabilities, the puppets portray children, and so the theory of this paper will be based for the most part on children relating to other children.

In his theory, Goldenberg developed five concepts upon which actual oppression is based. These are: continual

marginality and obsolescence; containment; expendability; compartmentalization; and personal culpability.

The first concept is continual marginality and obsolescence. This brings with it an enduring sense of futility, or an encompassing belief that victories have no form and defeats have no substance. To be oppressed is to be denied the chance to fail honestly. Oppressed persons are always dealing with the probable. They cannot succeed or fail - but can only survive.

Children may believe that other children with disabilities can not take part in many of the activities they do, and thus instead of using their imaginations and including them in their activities will assume the worst, leaving the children out in the cold.

Isolation may also happen in the classroom with the regular class teacher. When planning a class activity, the teacher may feel that the child with a disability can not take part in any way, and will either plan a separate activity or ship him/her to the remedial teacher for the duration of that activity. In both cases the child with the disability may feel as though he/she really does not belong as part of that group.

Through the "Kids on the Block" program it is hoped that by seeing the puppet shows, children and teachers alike will be able to witness puppets portraying children with disabilities doing many of the same things as other

children. Hopefully the program will enable the mainstream to develop more positive attitudes about including these students in day-to-day activities. Many of the speakers also incorporate into their presentations how they have managed to cope in the mainstream of life, times when they themselves, and the people around them, use some initiative and imagination. It is extremely difficult for the child with a disability to achieve success in anything if he/she senses that persons around him/her feel that he/she can not do it. Without the proper encouragement and peer support, he/she may give up on himself/herself and in fulfilling other persons' low expectations of him/her, he/she will continue to live on the margin of life.

The second concept dealt with by Goldenberg was containment. All forms of oppression seek first and foremost to contain or limit the range of free movement available to a particular person or group. The containment may be physical or psychological, or both. The primary function of containment is to increasingly restrict and narrow the scope of possibilities that can be entertained. The mechanisms for doing this may vary, but the objectives remain the same: to both isolate and control the development of people. I feel that certain groups within society, including those with disabilities, are often forced into a sense of containment, because if persons with disabilities are encouraged to rise to fulfil their potential as human

beings, then society as a whole has to change its attitudes towards such persons.

There has been a growing trend to bring children out of segregated classrooms and institutions, and into the mainstream. However, they may feel the effects of containment if children or teachers don't understand the reasoning behind, or resent the fact of, having to interact with a child with special needs in their classrooms or schools.

Children can be a very closely-knit group. If someone does not quite live up to their standards, they will often ostracize him or her. If there is a group of children with disabilities attending the same school, they may become labelled as "the handicapped kids" or "the retarded kids." The way in which children with disabilities behave may be important in determining their acceptance among classmates. MacMillan and Morrison (1980) found that misbehavior and academic competence were closely linked to rejection in a special class; and academic competence was most closely associated with acceptance and rejection of low achievers with normal IQ's, who were placed in regular classes. These children may rarely have the opportunity to experience life outside these labels. Although part of the mainstream, they may have their own 'special' groups, activities, and even classes.



The "Kids on the Block" program seeks to dispel these ideas by letting the children experience vicariously through the puppets that it is acceptable to interact with a child with a disability. Many of the speakers, through their own experiences, do explain what it is like to have felt isolated and more or less contained in their own little worlds.

The third concept discussed by Goldenberg was expendability. The main characteristic of expendability is based upon social arrangements which create the kind of day-to-day reality in which individual and group distinctiveness does not have any meaning in the interactions between human beings. In other words, people are not seen as being unique unto themselves, or valued for their individuality. The unifying theme of expendability stresses the fact that within a given group of people, individuals can be replaced or substituted by others without any loss to the whole. For example, a person with a disability is "just like all other persons with disabilities" and not seen as unique or valued as an individual.

Sometimes children will not come to know children with disabilities, or will lose interest in them, because the child with the disability can be replaced with someone better, someone who isn't "broken." With their limited knowledge and understanding of the world, children view the child with a disability in much the same way as they would a

new toy. The idea of having a friend or a classmate with a disability is great, until the novelty wears off. The "Kids on the Block" program tries to create a sensitivity and awareness in the children, whereby they relate to children with disabilities as persons, and not as objects that can be cast aside when something or someone better comes along.

The fourth concept discussed by Goldenberg was compartmentalization. This concept points to arrangements and practices which seek to stereotype people, and the ways in which they live. The oppressive experience is related to a chronic inability to feel a sense of personal power and wholeness. In this sense compartmentalization refers to the variety of ways in which people are prohibited from developing an integrated style, or, a way of being that is not impeded by the ever-narrowing roles, models and images that define what is or is not acceptable in the many crucial settings that directly affect one's existence.

In the past, children with disabilities have often been segregated, and placed in special classes, usually according to their individual disabilities. In this regard children with disabilities never had a chance to experience themselves as whole separate beings apart from being one of "the disabled." Even today, both children and adults may be classified as part of a distinct group, without being seen as individuals who are capable of developing their own lifestyles within an integrated community. In other words

they can become "pigeon-holed" into classes, living situations, or employment situations where society feels they should be, but not necessarily where they feel that they, themselves, belong.

The "Kids on the Block" program tries to dispel the myth that, just because a person has a disability, he/she should fit into a specific mould of how such a person should act or be. One of the puppet skits portrays a youngster who is mentally handicapped, working as a veterinarian assistant, a role no one would think a person like this could handle. Persons with this sort of disability supposedly are suited only for work in a sheltered workshop. Persons from the Speakers' Bureau come from all walks of life, each one unique, and not one is a "typical disabled person."

The last concept advanced by Goldenberg was that of personal culpability. The doctrine of personal culpability is a socially conditioned psychological set, whose purpose is to both encourage and predispose individuals to interpret their shortcomings or failures, their essential incompleteness, as evidence of some basically uncontrollable and perhaps unchangeable personal deficit. In other words, people are made to believe themselves to be responsible for their failures. If one is blaming one's self, he/she cannot be blaming the system. It encourages the internalization of blame and the heaping of abuse upon oneself.

It is easy to see how a vicious circle may form within a regular school setting in relation to this concept. The other children may view the problems of a child with a disability as being caused by the child himself/herself instead of being caused as a result of the disabling condition. As the others blame him/her for things or situations the child with the disability can not change or control, he/she learns to blame himself/herself.

The "Kids on the Block" program tries to present enough information to the children and teachers, so that both groups will understand the challenges presented by the disability, and not blame the child for things they don't comprehend.

Goldenberg (1978) explains that change comes in two forms: revolutionary change and evolutionary change. Both processes have their virtues and faults. However, the "Kids on the Block" program is very much evolutionary in nature. It slowly and gently tries to instill new ideas and new ways of looking at things in children's minds. As a by-product of this program it is also hoped that teachers will become more at ease with the possibility of teaching children with various types of disabilities and welcome them into their classrooms and schools.

Having discussed the theory of this intervention from the point of view of Goldenberg's (1978) analysis, this

discussion now turns to the research literature on children's attitudes towards handicapped peers.

### Mainstreaming

Baker et al. (1981) explain that for many years, special education was an isolated, marginal category of instruction. Seriously handicapped children were placed in institutions with little or no educational programming or sent to residential schools. Even those mildly handicapped children who attended public school were separated from the rest of the pupil population. They had their own classrooms and their own teachers. Contacts between handicapped children and their "normal" peers were minimal. This separation often extended to the special education teacher as well.

During the 1970's a major movement, now commonly referred to as mainstreaming, aimed at integrating children with various disabilities into regular school programs, began. The focus of mainstreaming was on providing alternatives for these children, to maximize their opportunities for getting the best education possible and for leading as full a life as their capacities allowed.

In December of 1980, a government bill was passed in the province of Ontario which guaranteed the right of all exceptional children, regardless of exceptionality, to an appropriate education. The bill was developed upon the

basis of five principles. Wilson (1983,p.3) stated that these were as follows:

1) Universal Access - the right of all exceptional pupils to have access to appropriate education programs.

2) Education at Public Expense - the right to education is provided without additional fees charged to the pupil and family.

3) Appeal Process - the right of exceptional pupils to have their interests represented, including the right of parents to appeal the identification and placement, or to request a review on behalf of their child.

4) Appropriate Program - The right of exceptional pupils to a program that includes a plan containing specific objectives, and an outline of the services that meet the needs of the exceptional pupil.

5) Ongoing Identification and Continuous Assessment and Review - provision for identification, and continuous assessment and evaluation, of each pupil's progress, including an annual review of the suitability of the placement.

Many studies have been conducted on the topic of when, how, and with whom to do mainstreaming. However, very little attention has been focused on how to develop

receptivity in the mainstream population toward the children with disabilities who are or will be entering it. Most of the research to date points to the fact that there is still a lot of negativity toward children with disabilities in mainstreamed settings.

Cohen (1977) pointed to the fact that little research has been done which explores attitudes of school personnel toward handicapped children. She suggested several reasons why educators have not given sufficient attention to preparing students and teachers to gain a better understanding and appreciation of the handicapped. First, educators feel that there is not enough time for special programs about handicapped persons which would prepare non-disabled children for the integration of children with disabilities into their classes, since public school pressure demands that the time for integration into the mainstream of school life is now. Therefore, students have not been prepared adequately to deal with their disabled classmates. Second, many teachers believe that attitudes are complex, abstract entities, and they prefer to deal with concrete instructional cognitions such as pupils' numerical skills or word analysis skills, rather than their misconceptions, fears, or their cruelties to the disabled. Cohen also asserts that in-service training of teachers is necessary to effect attitude changes but that such training

is most effective if program presenters have first-hand experience with disabled persons or with a disability.

Horne (1985) stated that representative research on classmates' attitudes towards their handicapped peers has documented the rejected status of the handicapped student in the regular classroom. Much of this research has utilized standard sociometric procedure. There have been very few recent studies in which the rejected status of handicapped students was not clearly evidenced (Horne, 1985). Jones, Lavine, and Shell (1972) found that, while blind children were generally rejected, a few were assigned higher ratings than their nonhandicapped peers. When these choices were examined more closely, it became apparent that these higher ratings were given to blind children by other children who were themselves rejectees or isolates.

Very few investigators have queried elementary-aged students about their feelings toward a variety of handicapping conditions. However, in one investigation Harasymiw, Horne, and Lewis (1976) found that the intercorrelations for orderings of liking of handicapped persons among adults and young student samples were positive and became increasingly significant with age. The order of disability preference from most to least accepted may be summarized as being: physical, sensory, psychological, and finally social handicaps. This relationship between student and adult rankings of disabilities may suggest that, with



increasing age, children begin to acquire the normative values of society. Unfortunately no actual statistics were given by Horne, and Lewis (1976). Findings such as these might indicate that in order for attitudes to be readily altered, interventions aimed at doing so should start at a very early age.

According to Taylor, Asher, and Williams (1987), the extensive literature on nonhandicapped students suggests that, although the lower peer status of mainstreamed mildly retarded children is well established, the behavioural dynamics associated with peer rejection by non-handicapped peers are not generally understood. Many authors (e.g., Coie, Dodge, & Kupersmidt 1987; Foster, DeLawyer, & Guevremont 1985) suggest that socially rejected children typically demonstrate high levels of aggressive behaviour. However, another study, by Gampel, Gotlieb, and Harrison (1974) found that the most distinctive feature of the mainstreamed retarded child's behaviour appeared to be a generally low rate of social interaction with other children. Coie (1985) and Rubin, LeMare, and Lollis (1988) have suggested that there are at least two distinct pathways to peer rejection, one characterized by high levels of aggressive and disruptive behaviour, and the other characterized by extreme levels of withdrawal, apprehension, and insecurity. But from whichever standpoint one accounts for the rejection of mildly retarded students, it is evident

from this research that we need to do more to prepare regular class students to accept retarded children as a part of their classes and their schools.

Ballard, Corman, Gottlieb, and Kaufman (1977) undertook a study designed to improve the acceptance of educable mentally retarded pupils among normal classmates in mainstreamed settings. Aspects of the treatment, based on previous research, and thought to maximize the possibility of long-term acceptance of these children, were: a) use of small co-operative peer groups; b) a focus on minimally academic, physically manipulative tasks; c) structure imposed on the activities engaged in by normal and retarded children; and d) a lengthy treatment period. The students were pretested and then posttested as to their attitudes towards retarded children. Results of the study showed that the social acceptance of mainstreamed educable mentally retarded children can be improved by a social intervention, and that improvement can endure two to four weeks after intervention.

Jones, Sowell, Jones and Buttler (1981) stated:

" In promoting the effort to integrate handicapped children into regular classes much emphasis has been placed on preparing regular class teachers for handicapped children. Attention has been focused on helping teachers develop the skills needed to accommodate the children in general education classes.... It must be realized, however, that often it is the understanding, support, and help received from non-handicapped classmates that are the critical variables for handicapped children's success in general education classes." (p.366)

If children's attitudes toward children with disabilities are to become more positive, we as researchers must endeavour to seek new approaches to change. To do this, we must understand how children's attitudes are developed, and how they can be altered.

#### The Three Components of Attitudes

There have been many definitions of attitude set forth, but one of the simplest was given by Bem (1970, p.14): "Attitudes are likes and dislikes. They are our affinities for and our aversions to situations, objects, persons, groups, or any other identifiable aspects of our environment, including abstract ideas and social policies."

According to Perlman and Cozby (1983), in the past, an attitude was thought to be made up of three components: a cognitive component - consisting of those beliefs held by a person about a object; an affective component - consisting of a person's feelings about the object; and a behavioural component - a person's tendencies to act in a certain way toward an object. Today this view is less widely used because it has been found to be confusing.

Oskamp (1991) is of the viewpoint that the three components described above are distinct or separate entities which may or may not be related. Fishbein and Ajzen (1975) recommend that the concept of attitude be used only with the affective component, indicating evaluation or favorability toward an object. They go on to suggest that an individual

usually has numerous beliefs about an object which do not necessarily have to be related. The same holds true for behavioural intentions.

### Functions of Attitudes

McGuire (1969) identified four functions of attitudes and discussed ways by which they can be changed or modified according to each function.

1) Utilitarian (adaptive) functions serve the purpose of helping a person achieve a future goal, but the attitude may also have current social adjustment value. Utilitarian attitudes can be modified by changing a person's relationships with important others, or by changing a person's perception about where others stand on an issue.

(2) The economy or knowledge functions of attitudes refer to giving:

"... a simplified and practical manual of appropriate behaviour toward specific objects. In life, as in science, the raw phenomena are too rich to be grasped in all their individuality. We tend to group them into convenient categories and tease out useful generalities about relationships among these abstract categories." (p.159)

From the perspective of the economy function, attitudes are based on environmental experiences and observations.

Attitudes based on this function should be changeable as a result of providing new information to the subject, but

attitudes "are not all that sensitive to new information."

(p.159)

(3) Expressive or self-realizing functions involve emotional functions such as, ...

"an opportunity for a cathartic acting-out of inner tensions. ... A person may also adopt an attitude to justify his behaviour. In the first case, attitudes might be changed by giving a person another way to express himself, or substituting other issues about which to hold attitudes. Where attitudes are used to justify behaviour, attitudes may be changed by requiring a person to conform overtly with new norms, with the result being that the person's attitude is modified to justify the new overt behaviour; the person thus internalizes the new norm."

(p.159)

(4) Ego-Defensive functions of attitudes are those that help persons deal with inner conflicts. Attitudes that are the result of a person's inner needs are likely to be impervious to change by conventional informational approaches, but may be changed by self-insight, catharsis, or cognitive reorganization.

#### Attitudes Toward Students with Disabilities

Cohen (1977) reports on factors influencing the formation of attitudes, particularly attitudes toward the handicapped. The factor which probably comes into play the earliest is that of expectancy sets. When people first see an individual whose facial or body features are grossly distorted or missing, most of them feel a sense of discomfort or stress. This immediate reaction to people whose appearance differs markedly from that which one comes to expect may have its basis in the early development of the

individual. In terms of attitudes, the young child builds up a set of expectations about people and then experiences anxiety in reaction to any marked deviations from them.

In the Quincy Public Schools, in Quincy, Massachusetts, "The Understanding Handicaps Program" was utilized (Chase, Lebewohl, Mulcahy & Shiffer, 1983). The program has six 45-minute teaching units presented to fourth and fifth grade classes throughout the school system. This program is offered by staff members who have daily contact with special needs students. Presentations include an introductory puppet presentation using the "Kids on the Block" puppets, and various units on learning disabilities, physical disabilities, deafness, mental retardation, and visual disabilities. The units without the use of the puppets consist of the presenters using their own expertise, films, slides, tapes, and other materials to teach the children about the needs of persons with disabilities.

Chase et al. (1983) noted that many children with handicaps were in classrooms with children who knew nothing about the handicaps. In the lower grades children were likely to ask questions, and they wanted to know why other children were different from themselves. By comparison, the children in the upper grades were more apt to stare and be unkind. While evaluating "The Understanding Handicaps Program", however, Chase et al. discovered that the fifth rather than the fourth grade were found to be more receptive

to the program. Though the fourth graders were more open and less inhibited, the fifth graders displayed a higher level of comprehension and asked more advanced questions.

While working with preschool children, Synder, Appoloni and Crooke (1977) demonstrated the importance of providing very young non-handicapped children with structured favourable interactions with handicapped children to enable them to begin to form early realistic perceptions and attitudes about handicapped people in general. They also reported that of equal importance is the possibility that, as a result of integration, handicapped children may be expected to grow up with greater repertoires of socially acceptable interactive behaviours and fewer of the stereotypic 'retarded' behaviours which so often have led to ostracism and ridicule.

When building programs to change attitudes towards persons with disabilities, (Wright, 1980) suggests there are two frameworks from which to proceed. The first framework, the succumbing framework, concentrates on the difficulties and heartbreak of being disabled, not on the challenge for meaningful adaptation and change. Emphasis is placed on what the person can not do, what is denied the person, and the problems that weigh the person down. The disability is seen as central, as overriding everything else about the person. The person as an individual, with a highly differentiated and unique personality, is lost.

"The second framework, the coping framework, represents the constructive view of life with a disability. Managing difficulties has a double focus. One focus is on environmental change, that is, changing those alterable conditions that add to the person's handicap, such as architectural barriers, discriminatory practices, lack of education, housing, and transportation. The second focus is directed toward change in the person through medical and psychological procedures that reduce disability, and through value restructuring that facilitates non-devaluation of the self as a person. The coping framework is oriented toward seeking solutions and discovering satisfactions in living. It recognizes the disability as only one aspect of a multifaceted life that includes gratifications, as well as grievances, and abilities as well as disabilities. Wright (1980)

While discussing changing attitudes about persons with disabilities using educational programs, Wright (1980) explains that where the thrust of the program concentrates on problems and not solutions, where the disabling aspects are emphasized and the individual as a whole human being is lost, then we can expect a succumbing orientation that feeds negative attitudes. This orientation is similar to Goldenberg's theory of oppression in so far as it emphasizes the loss of the person as an individual, and loses sight of any hope for improvement.

On the other hand, where problems involving disability are presented within the coping framework, as part of the total lives of individuals, positive attitude change can be expected. Specifically, where the setting shows the person with a disability functioning in terms of his or her capabilities, attitude measures are likely to be more favourable than in settings that highlight the person's



inadequacies and disabilities. For example, studies have shown that contact in places of employment, schools, and social settings is more likely to affect attitudes positively than is contact in medical settings (Wright, 1980).

Similarly, according to McKerracher (1982), the effect of contact is inconsistent, with some studies showing more positive attitudes but others showing no change or even more negative attitudes. Donaldson (1976) described three characteristics common to contacts which produced more positive changes in attitudes:

1. The experience with the disabled must be carefully controlled and structured.
2. The disabled persons must have at least equal status in relation to the non-disabled persons.
3. The disabled persons must not act in a stereotypic manner.

The latter two characteristics seem quite compatible with the observations of Pancer, Adams, Mollard, Solsberg, and Tammen (1979) in so far as the effect of these characteristics is to minimise perceived differences between disabled and non-disabled. In a study designed to determine whether a person with a disability engaged in ordinary daily activities would receive more help than a non-disabled person, or a person with a disability not engaged in ordinary daily activity, a female in a wheelchair was pushed

to an intersection by a male companion, and waited to cross (Pancer et al. 1979). In half the trials the female carried a large bag of groceries, while in the other half she did not. Results showed that cars stopped sooner for the disabled target who was not carrying groceries, rather than for the one who was. These results lend support to the idea that the perceived differences people have towards persons with disabilities may be decreased by letting others see them carrying on normal activities.

Assuming that the contacts are favourable, Donaldson and Martinson (1977) suggested that more positive attitudes can be produced in a relatively short period of time without the opportunity for personal relationships between disabled and non-disabled individuals to develop. These observations appear contrary to previous views. Yuker (1976) indicated that interaction between disabled and non-disabled that was frequent, direct and personal, friendly, co-operative and aimed at a common goal would result in more positive attitudes.

In a review of interventions done by Donaldson (1980), it was found that the results of educational programs were often contradictory, and generally showed no benefit or, at best, only slight improvements in attitudes toward persons with disabilities. Interventions have usually involved classroom activities such as formal lessons about disabilities, stories about disabled people, films or

simulations. These interventions have seldom involved actual contact with a disabled child. Donaldson notes that most of these studies are methodologically weak, and conclusions about the validity of the results cannot be made.

Negative attitudes toward the placement of severely handicapped children in close proximity to their non-handicapped peers could limit and perhaps even preclude the success of integration efforts. A study done by Voeltz (1980) revealed four factors which underlie children's attitudes towards handicapped peers. These are: a) social-contact willingness, b) the amount and kind of systematic interaction between the regular-education and severely handicapped children during the school day, c) a low level of contact with handicapped peers, and d) a high level of contact with handicapped peers. She suggested that regular contact with severely handicapped peers was the one variable which was clearly positively associated with acceptance.

Inderbitzen and Best (1986) found that handicapped children, those in grades five to eight, are more positive in their attitudes toward handicapped peers than are children in grades two to four. Perhaps one reason for this age trend is because relationships for older children are not so dependent upon the physical activity level of the handicapped child.

### Measures of Attitudes Towards Persons with Handicaps

There are many instruments that measure attitudes toward handicapped persons. The following section will examine the three different types of instruments that are used most frequently.

Likert (1932) developed a summative rating scale which is ordinal in nature and used quite often in studies of attitudes, including those toward the handicapped. Participants are asked about the extent to which they agree or disagree with an attitude statement. The number of response alternatives may vary from two up to seven. This is done at the discretion of the test developer, and usually reflects a consideration of the population for whom the scale is being developed. In order to determine the positive or negative value of attitude statements, the investigator develops attitude statements and makes a judgement about whether the statements are positive or negative. Then the statements are administered to a sample of individuals, and their responses are recorded.

An example of such an outcome measure which is commonly used is the Chedoke-McMaster Attitudes toward Children with Handicaps (CATCH) scale. CATCH is a 36-item self-administered scale for which children respond on a 5-point Likert scale to statements concerning their cognitive understanding of disabled children ("Handicapped children feel sorry for themselves"); their affective response to

disabled children ("I would be happy to have a handicapped child as a special friend"); and their behavioural intentions towards disabled children ("I would talk to a handicapped child I don't know"). Standardized scores for this scale range from 0 to 40. A higher score indicates more positive attitudes. The coefficient alpha is 0.9. Construct validity of this scale has been established, and the scale has been shown to detect differences in attitude according to gender, interest in being involved with children with disabilities, and actual experience with children with disabilities.

The original social distance scale, which enabled an ordinal level of measurement of attitudes, was developed by Bogardus (1925). The concept of "social distance" referred to the degrees and grades of understanding and feelings that persons experience regarding each other. Bogardus developed seven statements to measure social distance toward various nationality groups. The statements, from most to least positive, asked respondents to indicate whether or not they would accept an individual from a particular nationality group with respect to varying types of social contact.

Based on the Bogardus (1925) scale, Tringo (1970) developed the Disability Social Distance Scale. Twenty-one items were selected to represent various stages of social distance. Punishment items (e.g., "Would put to death") were added in an attempt to tap the more extreme ranges of

social distance not included in the original scale, and nine categories were used instead of the original seven. The nine item statements representing social distance were from the closest in distance to the farthest. In order these were: would marry, would accept as a close kin by marriage, would have as a next door neighbour, would accept as a casual friend, would accept as a fellow employee, would keep away from, would keep in an institution, would send out of my country, and would put to death. The instrument was administered by Tringo to participants from various backgrounds. However, no psychometric properties were given for this scale.

Sociometric procedures have been used extensively in investigations of the classroom relationships of handicapped children. Moreno's (1934) peer nomination technique requires group members to indicate choices for companions based on some realistic criterion. Many investigators have asked students to identify classmates they would or would not like to work with, invite or not invite to their birthday party, or to play or not play with them. In some cases children are assigned both acceptance and rejection scores. This procedure has been used in determining that learning disabled students tend to be rejected by their classmates (Scranton & Rykman, 1979).

Noll and Scannell (1972) pointed out limitations of this sociometric technique. When given a limited number of

choices, children may give answers which comply with directions they have been given, but do not reflect true feelings about their classmates. Noll and Scannell believe that negative questions should be eliminated, because they tend to emphasize, and perhaps elicit, negative feelings which would appear to have some undesirable implications from an ethical point of view. One problem with eliminating negative choices, however, is that it becomes impossible to distinguish between isolates and students who are actively rejected by their peers. The most widely used technique appears to be the Likert-type scale, and this approach has been adapted for attitude and knowledge measurement in the present research.

#### Research Pertaining to the "Kids on the Block" Program

Stark (1983) commented that, in general, disabled children are seen as being different and people are afraid to approach them. Stark also suggested that getting handicapped children to initiate and maintain a discussion of their limitations with other children could break down some of the barriers. One method of getting children to take part in discussions has been by implementing the "Kids on the Block" program, as discussed above.

According to Janus (1982):

"The Kids on the Block are exactly like other kids who might live on your block, with one small exception. These 'kids' are puppets: kid-sized, lovable, believable, entertaining puppets. They appeal to kids on their own level and their message is clear yet unobtrusive. Mark Riley is

eleven years old and has cerebral palsy; Rene (Renaldo), nine, is blind; Mandy, 13, is deaf and explains that she is a total communicator; Ellen-Jane is 21, is mentally retarded and holds down a job as a veterinarian's assistant. Jennifer Hauser, aged ten, has a learning disability and gets teased because she's 'different'. Melody James and Brenda Dubrowski, both ten, have their share of average frustrations (older brothers, weight problems) but they serve as role models for those able-bodied children in the audience. Altogether these engaging puppets entertain in kid-type language at the same time that they illustrate that 'it's o.k. to be friends with disabled people". (p.34)

Although these were the original cast of puppets, there are now 28 puppets in the cast, representing children with disabilities ranging from spina bifida to those with cultural differences (Stark, 1983). Anderson, Del-Val, Griffin, and McDonald (1983) reported on observations of this program. They found that the use of puppets was an ideal way to elicit enthusiasm from children, and to give them a common experience. The puppet program was used as the introductory session of six 45-minute presentations of lessons on disabilities. Staff specialists were also involved in later discussions. The students asked the puppets questions, held them and observed their handicaps, and in later sessions referred to puppets by individual names in their discussions.

Anderson et al. (1983) further explained that exposing young children to programs such as this appears to make a difference, at least in the short run, in their attitudes towards the handicapped. The instrument used to measure



this phenomenon was a modified version of the Attitude Toward Handicapped Individuals Scale, which measures attitudes of acceptance or rejection. One example of a item on the modified version of the scale was, "It would be fun to have a handicapped person over to my house". All items were read aloud to students, who then marked their responses on a continuum from "agree a lot" to "disagree a lot", concerning their feelings about being with, interacting with, or being around those with disabilities.

The scale was administered in pretest-posttest fashion, but it was unfortunate that no control group was used in this study, to help determine the effects of repeated testing or development. Results showed that 60% of 119 children from grades four and five showed positive attitude changes immediately after having participated in the "Kids on the Block" program. Some of the 40% who showed no improvement had exceptionally high scores on the pretest which left little room for gains. Finding that programs such as this can improve students' attitudes toward the handicapped is important for school systems committed to the concept of mainstreaming. However, a follow-up survey would be necessary to determine whether or not these positive attitudes remain over a longer period of time.

Snart and Maguire (1986) also concluded that one method of attempting to improve attitudes or feelings toward the handicapped is to provide increased factual information

about persons with various handicapping conditions. Particularly with children, this approach would likely lead to a reduction in uncertainty and a calming of fears, which might lead to attitude change based on the knowledge function discussed by McGuire (1969). They studied this phenomenon by testing the children from 6 grade three classes on knowledge and attitudes toward children with disabilities, prior to seeing the "Kids on the Block" program, and shortly after seeing it. The measuring instrument consisted of 40 items, to which students could respond by checking "yes," "no," or "don't know." Twenty five questions were based on fact (e.g., "children with learning disabilities usually are blind or deaf") and 15 were designed to measure attitudes (e.g., "I would rather be in a class where there are no blind or deaf students"). By using a chi square analysis the researchers found that on 17 of the 25 knowledge-based questions, significantly more children scored correctly at the posttest. Of the 15 attitude questions, children expressed significantly more positive attitudes on five questions following the puppet presentation. These differences suggest improved understanding and more positive attitudes following the "Kids on the Block" program. However, again, the lack of any control or comparison group in this design weakens the conclusions one can draw about program impact specifically. With the absence of any controls, one can never be sure

whether it is the "Kids on the Block" program or something entirely different which is having an impact on change in attitudes. It was also interesting to note that the program appeared to have a more consistent effect on children's knowledge scores than on their attitudes.

Leyser (1984) argues that the optimal way to achieve acceptance of handicapped peers by others is to have non-handicapped children actually interacting with children who have a variety of different handicaps on a daily basis. Since actual interaction may often be unrealistic in a public school setting, the use of puppets in special and regular education settings, as in the "Kids on the Block" program, is receiving attention.

According to Rosenbaum, Armstrong, and King (1986), research has shown that direct contact with a disabled child is effective in improving attitudes. However, most school children do not have an opportunity for a prolonged direct contact experience. Their attitudes must be shaped by various educational sources, such as teachers, parents, and television.

Donaldson (1980) concluded that when "educational" programs were used to improve children's attitudes towards children with disabilities, the results have often been contradictory, and generally showed no benefit or only slight improvement in attitudes. Many interventions such as these have simply involved purely classroom activities such

as formal lessons about disabilities, stories about disabled people, films or simulations. Rarely, if ever was there actual contact with a disabled child. Donaldson feels that many of these studies were methodologically weak and that conclusions about the validity of the results could not be made.

The study by Rosenbaum et al. (1986) was designed to explore this factor of contact with the handicapped carefully. It also investigated the impact of the "Kids on the Block" program. A randomized-factorial design was used to evaluate the relative impact of two interventions, a buddy program and the "Kids on the Block" program, singly and in combination. The study took place at three regular community primary schools which also had segregated classes for disabled children. At each school, the two regular senior classes were randomly assigned either to receive or not receive the "Kids on the Block" program. Within each class, children who consented to be in the study were randomly assigned to be, or not be, buddies to a disabled child. This resulted in four groups: 1) children taking part in the buddy system alone; 2) children taking part in the "Kids on the Block" program alone; 3) children taking part in both the buddy program and the "Kids on the Block" program; and 4) children not exposed to either program.

Ninety-nine non-disabled children in grades 4-7 agreed to take part in the study. The number of children included

was based on the availability of disabled children to be paired. Children were rank ordered according to their original attitude scores and then, starting with children with the lowest attitude scores, were randomly assigned to be buddies or controls. Sixty-six children participated in all: 15 were buddies only; 19 received the "Kids on the Block" program; 19 were buddies and received the "Kids on the Block" program; and 13 were controls. The disabled children all had multiple handicaps, and ranged in age from 6 to 17 years.

The nature of the intervention significantly influenced attitude change as measured by the CATCH Scale mentioned above. Secondary outcome measures included The Perceived Confidence Scale, which is a self-report scale that measures perceived confidence in cognitive, social, and physical activities. There was also a general competence measure, a Parental Attitudes toward Children with Handicaps (PATCH) inventory and a Knowledge of Disabled People scale. CATCH and the four secondary measures were given prior to, and 1 week after, the 3-month intervention program.

As a group, children who saw the "Kids on the Block" program (including both the Buddy & "Kids on the Block" program and the "Kids on the Block" treatment group alone) showed a significantly lower rate of criterion improvement in CATCH scores than did children not exposed to the "Kids on the Block" program (Buddy only and Control groups).

Rosenbaum et al. (1986) established that there would be a significant criterion improvement if the child scored .75 standard deviation points above the pretest score, on the post-test. They suggested this would indicate a meaningful positive change in attitudes. Children who saw the "Kids on the Block" program alone had a 37% criterion change while those who were exposed to no program showed a 38% change. Only 11% of the children who took part in the combined buddy experience and "Kids on the Block" program showed a criterion attitude change. It was interesting to find that 67% of the children who took part in the "Buddy Experience" alone had a criterion change.

Thus, the "Kids on the Block" program used alone had no measurable impact on children's attitudes in this study, and did not augment the effects of a "buddy" treatment experience. One explanation given for the lack of success of the "Kids on the Block" program was that the "Kids on the Block" often portrays the world as it should be, not as it really is. "The reality of disabled children is often somewhat different. Although they talk to the children in the audience using children's language, the puppets are happy, in tune with their abilities, have good self-esteem, and are able to help the able-bodied puppets and audience to feel at ease with them and their predicaments." (Rosenbaum et al., 1986, p.306). In real life, children with disabilities are rarely so confident.

The "Kids on the Block" program teaches about disabled children and their capabilities. What the program does not do is to teach able-bodied children how to behave with disabled classmates. The focus is on the child with special needs, and the dilemmas and predicaments of the regular children who are not so sure how to act with the disabled are secondary. Therefore, the program may not help the regular children learn how to socialize with their disabled school mates, and may even have engendered more negative attitudes in combination with the buddy system according to Rosenbaum et al.'s (1986) data. The program may actually have hindered the development of positive attitudes because the children may have learned unrealistic expectations for their handicapped buddies. If this is the case, it may be necessary to create a separate series of scenarios about the able-bodied and their needs, in order for this educational modality to be used as a tool for improving social interaction and attitudes of able-bodied children toward disabled peers.

Clearly, then, there is a definite need for further evaluation of the "Kids on the Block" program. The program must keep refining and redefining itself to enhance its goal to be more than just a form of entertainment. Further work on the surprisingly negative implications of this study with respect to the "Kids on the Block" program is definitely needed.

### Program Evaluability Assessments

According to Rutman (1984): "Evaluation research is, first, and foremost, a process of applying scientific procedures to accumulate reliable and valid evidence as to which specified activities produce particular effects or outcomes." (p.16) In order to be evaluable, a program must meet three preconditions: 1) there must be a clearly articulated program; 2) the program must have clearly specified goals and/or effects; and 3) there must be a rationale linking the program to the goals and/or effects.

A clearly articulated program can be conceptualized in measurable terms, and valuable data can be collected on the operation of the program. The articulation and monitoring of a program's operation provides a sound basis for attributing the measurable results to the features of a program. With this in mind, the ideal is to determine whether various components of a program are effective, including the extent to which a particular style or manner of implementation influences the outcomes.

Within many programs, it is common to find goals which are stated vaguely in global or long-range terms, contradictory, or unrelated to the program's activities. Because goals serve as the criteria for the success of the program, they must be stated clearly in order to develop productive measures. Goals which are specified clearly provide the basis for holding programs accountable.



Programs assume a rationale which suggests the reasons why a certain program is expected to reach its stated goals or produce its desired effects. The first role of the evaluator is to determine if there is any link between program efforts and outcomes, based on this rationale. The evaluation study must include the immediate goals in the research, while attempting to test propositions about the connection between immediate, intermediate, and ultimate goals. If all these are not included, there is always a danger that the evaluation may measure unachievable goals or unexpected results, while failing to include those which are in reach of the program.

Rutman (1984) went on to explain the five steps of an evaluability assessment: 1) the identification of the primary intended users of the planned evaluation, and with them, determining what activities and objectives constitute the program; 2) collection of information on the intended program activities, goals, objectives, and the assumed causal relationships; 3) a synthesis of the information which has been collected, with the end result being the development of a "rhetorical program model" which is a flow model or models illustrating intended resource inputs, intended program activities, intended impacts, and the assumed causal links; 4) a determination of the extent to which the program, which is represented by the rhetorical model, is unambiguous enough that evaluation is both

feasible and potentially useful; and 5) the feedback of the results of the assessment to the intended users and the identification of program components and objectives which are amenable to evaluation.

These five steps served as a model for the present evaluation of the "Kids on the Block" program:

- 1) The primary users of the "Kids on the Block" program are mainly the "Kids on the Block" program co-ordinator, and the "Kids on the Block" program planning committee. This group will be using the evaluation to examine what the program is accomplishing, and how it can be improved.
- 2) This researcher met with the co-ordinator and committee to gather information on the intended program activities, goals, objectives, and the assumed causal relationships. This researcher also reviewed many documents examining the above mentioned issues.
- 3) The researcher, program co-ordinator, and committee agreed upon an evaluation which would be both feasible and useful.
- 4) The results of the evaluability assessment were discussed with the program co-ordinator, and committee, and the program components and objectives which were amenable to evaluation were identified.

Rutman (1984) specified four major guidelines for developing a program evaluation:

1) Program Articulation - In order to articulate a program, the question must be asked: What are the program components? The articulation of a program requires that the specific elements or components of the program be identified and operationalized. A preferred strategy for evaluation research is commonly called component testing, which involves efforts to determine the effectiveness of particular program components or activities.

Component testing is a means of evaluating a specific project or a national project, since the focus is upon activities which cut across similar projects. With the "Kids on the Block" program evaluation, the researcher examined the change in the knowledge and attitudes of the children toward disabled children as a result of having seen the "Kids on the Block" program series in several different school settings.

2) Specifying Goals and/or Effects - The aim of evaluation research is to determine the consequences of program interventions.

Difficulties may arise when different members of the organization have different goals in mind. The first task is to identify formally stated goals

and to ensure that they are specific. The reasoning behind this is that the future task of developing reliable and valid measures will be that much easier if the goals and/or effects are clearly specified. The major goal studied here was the creation of more knowledge and positive attitudes in children toward disabled peers as a result of having participated in the program.

3) In addition to the above, data must be collected on any antecedent variables. This type of variable may be described as any factors which are independent of the program, but are part of the context and constraints within which the program operates. These types of variables can include things such as characteristics of clients, and policies which can constitute the focus of change and/or are the basis within which change will be expected to occur. Guidelines for determining what information should be used include: a) the gathering of information which is purely descriptive in nature in order to provide a background understanding of the project; b) an examination of factors which are likely to determine outcomes; and c) an examination of the nature of the problem which brings clients to the service. Information such as this collected before

the evaluation starts and/or during a later follow-up, can determine any changes which have occurred in the problem areas. Prior to evaluation, the researcher has done many observations of the classroom situations where the "Kids on the Block" program is carried out, and was able to use this knowledge to interpret the results.

4) Specifying Intervening Variables - These are factors which can have an important influence upon facilitation or impediment of goal accomplishment. In order to determine these, it is necessary to ask: what are the factors which could impede or facilitate goal accomplishment? By identifying and understanding the influence of any intervening variables, it becomes possible to maximize the program's benefit. One factor which may impede or facilitate goal accomplishment is the overall attitude of the individual teachers toward the program. For example, if a teacher is using the program as a time filler, this may have a counter-productive effect on the children's attitudes. Efforts to observe such intervening factors, and make some qualitative comments on their impact, were made.

### Rationale and Hypotheses for Study

It has been reported time and time again, throughout the field of education, that children without disabilities in classrooms often seem to start out with negative attitudes toward their peers who have any sort of abnormality or disability. With the mainstreaming movement of the early 1970's, which set out to integrate children with disabilities into regular classroom settings as much as possible, educators became increasingly aware that these children need to feel accepted by the non-handicapped children in their classrooms, and that special efforts need to be made to encourage this.

Many approaches to this issue have been tried. One program which has generated much controversy is the "Kids on the Block" program. The little research which has been done on this program has shown very inconsistent results and a dichotomy of opinion. For example, Anderson et al. (1983) had the highest praise for the program, and the way the children interacted with and learned from the puppets. On the other hand, Rosenbaum et al. (1986), who conducted a more controlled study of its effects, found that the "Kids on the Block" program had no significant impact upon young children's attitudes, and went on to suggest that the program might even foster unrealistic expectations of handicapped children by the non-handicapped. More research is thus required to determine the immediate impact of the

program, as well as its long-term effects, which have not been assessed in any research studies to date.

The present research examined non-disabled children's attitudes toward children with disabilities. The conception of attitudes toward the disabled, as studied here, was based on Goldenberg's (1978) Theory of Oppression. It was the expectation of this researcher that children will grow up to be less oppressive toward minorities (of which persons with disabilities are but one example), if they can develop more positive attitudes regarding the issues of integration at an earlier age.

There are four general hypotheses upon which this research on the impact of the "Kids on the Block" program focuses:

- 1) A new questionnaire, based on Goldenberg's (1978) ideas, was developed for this study. The control group in this research design should score at approximately the same level of attitudes toward the handicapped on this questionnaire over repeated testing, since they do not receive treatment. Given this, the several questionnaire forms developed and administered to this control group should demonstrate test-retest reliability over time.

- 2) This questionnaire, which assesses both knowledge and attitudes, should prove an effective

instrument for measuring nonhandicapped children's dispositions towards the handicapped. It is predicted that the instrument will demonstrate more positive attitudes and greater knowledge of disabilities among those who have experienced more contact with the handicapped, and among those in higher grades, supporting the construct validity of the measure.

3) Children in a control group and in a treatment group should score equivalently on the pretest. However the children involved in the program should show significantly greater knowledge and more positive attitudes on the posttests. Very little research to date on this program has been done using appropriate control groups. Therefore it has been very difficult to assess any apparent changes brought about by the interventions used. With the present research design the impact should be assessed more clearly. A longer-term post-test in this design will allow a test of the durability of any changes as well.

4) If the children are finding the program enjoyable, it is assumed that they will learn more from it. A program evaluation form, which is qualitative in nature, was used, so that it was possible to see whether or not the children found



the program enjoyable. The form asked for the children's opinions of the program. Comparing these results with the changes in attitude over time, the phenomena of learning, attitude change, and enjoyment can be explored.

## Project and Program Description

### Genesis and Intent of Project

In the early summer of 1989, this researcher approached the coordinator of the "Kids on the Block" program, with the idea of doing an intensive evaluation of the program. Other researchers had done smaller projects, but none had come up with any conclusive evidence regarding the program. Since the coordinator was hoping to develop a mission statement for the program, this seemed to be an ideal time to do an evaluation of this magnitude.

Because the "Kids on the Block" program is always expanding, it was decided that this project should remain within the confines of the mandate of the program. The mandate states that the "Kids on the Block" program will set the schools of Waterloo County, both from the Waterloo School Board and the Waterloo County Separate School Board, as top priority. Other schools within the Waterloo Region shall be second in priority to these. Since the fall of 1986, the "Kids on the Block" program has been available only to grades three to six. Children younger than this do not truly grasp the concepts dealt with by the program. This will be the case both for schools that book a series and for those wishing a one-day presentation.

For purposes of evaluation it was decided to measure the change in attitude of students and teachers toward persons with disabilities as a result of the program. As

well, the amount of knowledge gained about various disabilities was examined.

#### Sources of Information Used for Project Description

In developing this project, this researcher consulted constantly with persons from the Independent Living Centre of Waterloo Region. The major consultant who worked with the researcher was the co-ordinator of the "Kids on the Block" program. She passed on information about the program in terms of goals, philosophy and history. She also introduced the researcher to the "Kids on the Block" program committee. This committee was vital in the development of the survey format for this project. The committee also helped to sort out problems in deciding what approach needed to be taken with the evaluation.

#### History of Program

In 1978, Barbara Aiello, a Washington-based special educator, with puppeteer and Emmy Award-winning designer Ingrid Crepeau, created The Kids on the Block. The Kids on the Block Inc. was formed shortly thereafter as a mechanism for the distribution of Kids on the Block teachers' kits. Aiello and her company have travelled all over the world spreading the Kids on the Block message. They have visited Canada a number of times, most notably Winnipeg in July 1980, for the World Congress of Rehabilitation, and London, Ontario, in January 1981, for the Ontario Recreation Society Conference.

Aiello (1982) states:

"Mark Riley is not a figment of the imagination... As a teacher in special education I had a young boy in my class, Anthony J., who had cerebral palsy and was using a wheelchair. When it came time for him to move on to classes with all the other school kids he was extremely reluctant. He feared what might happen, their stares, the unknown. He praised my teaching and understanding, hoping to stay in the known setting. Honestly, it was tempting to keep him another year in the safe setting, but I realized then that he had to be pushed out of the nest, so to speak, but that he also needed some help along the way." (no page number)

The article states further that:

"If there was a more regimented reason for the creation of the kids on the Block it had to be Public Law 94-142, (in the U.S.A.) often referred to as the "mainstreaming law." It permits handicapped children to be educated right along with non-handicapped children. When children who are disabled sit next to non-handicapped children in their classrooms, there are inevitable questions and concerns." (no page number)

Locally 1991-92 is the tenth consecutive running year for the "Kids on the Block" program in the Waterloo Region.

#### Needs Addressed by the "Kids on the Block" Program

With the introduction of Bill '82 into the Ontario school system, came the influx of many children with various disabilities into regular classrooms. For many years children like these, if they were educated at all, were educated in separate classes or even in separate institutions, away from other "normal" children. With this intrusion of little persons, who did not quite fit the mould of the typical school-age child because of mental, physical or emotional delays in development, came the teachers' fears of not knowing how to handle the special needs of such

children. The nondisabled children were anxious because in most cases they had never had to deal with children with disabilities before. In some cases, the child with a disability became anxious because he/she had never had to deal with "regular" children before.

In 1982, when the Independent Living Centre of Waterloo Region took up the challenge of this dilemma, they did so while following their agency's philosophy. Independent living really means allowing people with disabilities to live as they choose in their home communities rather than in institutions. The concept may sound simple but implementation can be very complex. For a disabled person it means exchanging the safety of custodial care for stress and risk and decision-making. It means finding support services in order to survive. It means directing this service in order to give life a new meaning. For the rest of us, it means a commitment to breaking down environmental barriers that exist in homes, public buildings, places of employment and on our streets. It also means supporting essential services, like attendant care and transportation. It is now a fact that disabled people are no longer likely to be passive recipients of care. They will make decisions about their own care, where they live and their future.

As part of the program, the three weekly puppet presentations give children and teachers alike a chance for

a "dry run" at dealing with persons with disabilities. During the fourth week a speaker with a disability will speak to the children of his/her own life experiences. This gives the children a chance to practise on a live person what they have learned from the puppets. This researcher, having had experience as a speaker in the program, can safely say that in order for this process to work, the speaker must be open to every type of question imaginable. It has been the observation of the researcher that once the children have their questions about the disability of the speaker "out of the way", they then want to know about the person as a person. One thing the program tries to do is to help the children and teachers feel comfortable around persons with disabilities.

#### Goals of the Program

The long term goals of the "Kids on the Block" program are:

1. To increase the knowledge about disabling conditions among age and grade-appropriate children and their teachers.
2. To decrease negative attitudes toward persons with disabilities among age and grade-appropriate children and their teachers.

Immediate goals are:

3. To provide an entertaining format in which children for whom the program is age and grade-appropriate can learn about persons with disabilities.

4. To provide an opportunity for children for whom the program is age and grade-appropriate to explore their feelings about persons with disabilities.
5. To slowly decrease anxiety surrounding the unfamiliarity of persons with disabilities in children for whom the program is age and grade-appropriate.

#### Components of the Program

There are two components to the "Kids on the Block" program. They are the puppet show and the Speakers' Bureau. These are both overseen by the program co-ordinator.

The puppet shows seen in the schools are usually done by volunteer puppeteers. Sometimes, if a volunteer is not available for a certain show, the program co-ordinator will double as a puppeteer. All puppeteers are given an intensive two to three month training session before they are allowed to do any of the shows. Each puppet show must have two puppeteers present, because of the way the puppets converse. The puppeteers come from all walks of life. Some are housewives looking for a worthwhile project, while others are students fulfilling a school commitment. This year marked the introduction of high school co-op students into the program. These students have turned out to be an ideal addition to the program because they have more time to offer, not only with puppeteering, but also with the day-to-day work of planning and preparing the program.

A typical "Kids on the Block" presentation will last approximately 45 minutes. Approximately 100 to 150 children along with their teachers will assemble in the school's library. There are usually three sessions with the puppets, and one with a speaker. The program will start with either the co-ordinator or one of the puppeteers explaining the difference between disability and handicap. He/she will also explain what an attitude is. During the first session, this is new knowledge given to the children. They then learn the "Kids on the Block" song. In the later sessions, this is used as a review exercise. The children then see a puppet skit, with the puppets portraying a certain disability. The children may ask questions of the puppets or puppeteers at the end of the skit. They then see another skit and ask more questions. The session ends with all the puppets coming out on stage and singing the song again with the children. The children then go back to their respective classrooms.

The other component of the "Kids on the Block" program is the Speakers' Bureau. This part of the program is supervised also by the program co-ordinator. This bureau consists of a group of individuals with various disabilities. These persons go into the schools to explain to the children and teachers what it is like to have a disability. In most cases the co-ordinator or teacher will



accompany the person speaking in order to introduce him or her, and to offer any assistance which may be required.

Program Goals in Relation To Evaluation Objectives

The evaluation objectives are:

1. To explore the learning and retention of knowledge in children with regards to children/persons with disabilities as a result of the "Kids on the Block" program.

Since one of the goals is to increase the knowledge about disabilities and persons with them, the question to be answered here is, do the children really learn anything about disabilities and persons with them, or is the "Kids on the Block" program just entertaining for them? The three-part survey tested directly to see if knowledge has been gained and retained by the children.

2. To explore and measure the change in attitude of children toward children/persons with disabilities as a result of the "Kids on the Block" program.

One of the goals stated is to increase positive attitudes toward children/persons with disabilities. Here again, the survey attempted to investigate any changes, and retention of those change over time.

## Method

### Participants

There were six schools within the Waterloo region which took part in this study. As stated previously, the mandate for the "Kids on the Block" program requires that it serves children from grades three to six. Three of the schools have taken part in the program, and are considered the test group for the purpose and duration of this study. They did the pretest prior to seeing the "Kids on the Block" program. When these schools contacted The Independent Living Centre of Waterloo Region in regards to having a "Kids on the Block" program series conducted in their particular school, they were asked by the "Kids on the Block" program co-ordinator if they would be willing to take part in the evaluation. All three schools were tested simultaneously. The schools tested included: Northdale Public School in Waterloo, with 138 students and 6 teachers represented; Rockway Public School in Kitchener, with 122 children and 5 teachers represented; and Centennial Public School in Cambridge with 131 children and 6 teachers represented.

The control group was actually made up of two groups, and these were dealt with separately from the test groups. These schools were obtained by the evaluator, by sending out letters soliciting schools as

control groups. This was later followed up by a phone call from the program co-ordinator. The first two schools were Meadowlane Public School in Kitchener, with 95 students and 4 teachers represented, in grades 3 and 4, and Trillium Public School in Kitchener, with 93 students and 3 teachers represented, in grades 5 and 6. These schools had never had the "Kids on the Block" program as a school series before.

A third school, Our Lady of Fatima in Cambridge, with 111 children and 4 teachers represented in grades 4 to 6, had seen the program 1 year earlier. It was hoped that by comparing this group with the other control group, and with the test groups, any long-lasting effects of the program might be suggested. The idea for using a setting of this nature came about unexpectedly. The principal of that school, who is a member of the "Kids on the Block" Committee, suggested that his school be part of the evaluation. With the first two control schools, only two of the four grades were used, because otherwise the control groups would have become too large for this study.

#### Design

This project was designed as a pre-post test study on intact treatment and control groups. The participants were tested on three separate occasions, using the same questionnaire format each time.

The test groups were examined 7 days prior to the onset of the "Kids on the Block" program. This gave a base-line level of attitude scores in these classes. The control groups were given this pretest at a time which approximated the starting point of the treatment groups.

The first posttest was conducted with the test groups the day after the completion of the program series. At this point as well teachers and students alike were asked to complete a subjective program evaluation form explaining in their own words how they felt about the program. These questionnaires constituted a subjective evaluation of the program by the consumers, while the three attitude surveys constituted an evaluation done by this evaluator/researcher, based on participants' self reports of knowledge and attitudes.

This immediate posttest was done with the control groups about 35 days after the initial pretest, which approximated the time between the pretest and first posttest of the test groups. Of course, the control groups did not fill out a subjective program evaluation form. The second posttest was conducted with the test groups 28 days after the first posttest. This provided a measure of the more durable effects of the program.

The control groups were also given a second posttest at this time.

Attitude and Knowledge Measures.

In order to ensure the attention of the children, three slightly different questionnaire forms were developed, one for each time of testing. The three versions were referred to as Forms 1, 2, and 3. Form 1 was completed at the time of pretesting, Form 2 at the time of the first posttest and Form 3 at the time of the second posttest. The three survey forms of the attitude questionnaire were designed by the researcher specifically for use in this study. The questionnaires focus on both knowledge and attitudes regarding persons with disabilities.

The questions used to test knowledge are very straight forward. Survey items include examples such as:

A child who is blind reads with his fingers.

Disagree            Don't know            Agree

A child who is deaf is also dumb.

Disagree            Don't know            Agree

The questions used to test change in attitude were based upon Goldenberg's five components of oppression, which are: the experience of continual marginality, containment, expendability, compartmentalization, and

the doctrine of personal culpability. Questions include:

A child with a disability should always be in a segregated class for children with similar disabilities.

True                      Don't know                      False

This is an example for containment.

A child without a disability would probably not be best friends with a child who has a disability.

True                      Don't know                      False

This is an example for expendability.

A child with a disability would disrupt a regular class.

Yes                      Don't know                      No

This is an example of personal culpability.

The teacher should be responsible for involving a child with a disability in all activities of the class in which he/she is integrated.

No                      Don't know                      Yes

This is an example of continual marginality (scored negatively).

A child with a disability should only take part in activities designed especially for him.

Agree

Don't know

Disagree

This is an example of compartmentalization.

Scoring. There was an overall average of positive scores taken for the three groups at the three different times of testing. The range of scores was 0 to 25. There was also a separate score calculated for knowledge and attitude for each form. Questions 2, 4, 6, 7, 9, 10, 11, 14, 15, 16, 18, and 20 pertain to knowledge, while questions 1, 3, 5, 8, 12, 13, 17, 19, 21, 22, 23, and 24 pertain to attitude. The range of scores for both of these subscales was 0 to 12. Question 25 is of general interest, and was analysed separately, as well as being included as part of the overall scale.

Appropriateness. This measure has been designed to measure the "change" goals of the "Kids on the Block" program. Because it has been designed for this specific purpose, and this is the first trial of it, it can only be assumed at this time that it is an appropriate measure.

Psychometric Soundness. The three survey forms given to the control group, which had no previous contact with the program, were assessed for test-retest, or

alternate form, reliability. It may be assumed that there is no reason for scores to change systematically over time for this group, thus providing an opportunity to assess the three forms for reliability over time (Hypothesis 1 above).

Validity. When this measure was being designed, the researcher received a lot of input from the "Kids on the Block" program co-ordinator and committee. Examples of items from the pages above would indicate "face" validity, but there is no direct cross-validation with other available measures. One assessment of the validity of the measure will be based on the relation between attitude and knowledge scores and children's level of previous contact with the disabled and grade level (Hypothesis 2 above). If those with more contact are also more knowledgeable and have more positive attitudes, this will provide some support for the measure's construct validity, based on previous research findings. Similarly, higher attitude and knowledge scores should be positively associated with their grade levels, based on previous findings (Hypothesis 2 above).

#### Qualitative Comments and Opinions

During the first post-testing, the participants who had just participated in the four-week program completed a program evaluation survey consisting of



seven questions. This form of evaluation was used as a means of eliciting subjective responses from participants, regarding various features of the program. It was anticipated that this measure would reveal areas in which the program could be improved, as well as the strengths and weaknesses of the program. The items included questions such as "What did you like about the program?" and "What did you not like about the program?".

#### Procedure

Stated briefly, the students, and teachers in both control and test groups went through five steps in their part of the evaluation. Seven days prior to seeing the "Kids on the Block" program, children and teachers in all groups completed a pretest survey to determine a baseline for attitude measurement. Filling out this survey took approximately twenty minutes. Following the seven days, the children and teachers in the test groups saw the "Kids on the Block" program. This was done over the course of four weeks. The day following the completion of the program, the children and teachers in the test group were asked to fill out the first posttest and, as well, a subjective program evaluation form regarding what they thought of the program. After a delay equal to that taken by the test group, the control group filled out the posttest, but

obviously not the subjective program evaluation form. Twenty-eight days following this, both groups completed their delayed posttest.

The materials for the schools were compiled and placed in packets designated for each school. This was done by the program co-ordinator, assisted by one of the puppeteers, and supervised by the evaluator. These packets were then either hand delivered by the co-ordinator or mailed to the designated schools. The procedure followed in the schools is explained in detail in "Teachers' Instructions" in Appendix II.

After the researcher analyzed the data, these results were discussed with the "Kids on the Block" Program Committee.

## Results

Reliability

To assess the test-retest reliability among the three different forms used in this study, Pearson correlation coefficients were calculated between scores for form 1, form 2, and form 3. This analysis was done using only the control group, assessed at three separate times, approximately one month apart. Table 1 shows the results of this analysis for the total scores, including both the knowledge and attitude measures combined.

Table 1  
(Reliability Correlations across Forms)

	<u>Form1</u>	<u>Form2</u>	<u>Form3</u>
<u>Form1</u>	1.00 (134)	.54* (134)	.48* (134)
<u>Form2</u>		1.00 (134)	.70* (134)
<u>Form3</u>			1.00 (134)

Number of Participants in ().

\*p < .001

The knowledge and attitude scores were then separated and Pearson correlation coefficients calculated for each measure separately, according to form. Table 2 shows the coefficients for knowledge

scores across forms 1 to 3. Table 3 shows the coefficients for attitudes.

Table 2

<u>Knowledge</u>			
	<u>Form1</u>	<u>Form2</u>	<u>Form3</u>
<u>Form1</u>	1.00 (134)	.50* (134)	.53* (134)
<u>Form2</u>		1.00 (134)	.59* (134)
<u>Form3</u>			1.00 (134)

Number of Participants in ().  
p < .001

Table 3

<u>Attitudes</u>			
	<u>Form1</u>	<u>Form2</u>	<u>Form3</u>
<u>Form1</u>	1.00 (134)	.48* (134)	.35* (134)
<u>Form2</u>		1.00 (134)	.73* (134)
<u>Form3</u>			1.00 (134)

Number of participants in ().  
p < .001

In general, moderate test-retest reliabilities were obtained across the three administrations for both knowledge and attitude measures, as shown.

#### Prediction of Pre-Existing Attitudes

The researcher assessed the construct validity of the measurement instrument based on previous research on predictions of attitudes towards handicapped persons. Three stepwise multiple regressions were run on the dependent measures of the complete score on form 1, knowledge scores on form 1, and attitude scores on form 1. The control group and treatment groups at pretest were combined for this analysis. The following variables were entered in a forward stepwise procedure: whether the children knew a disabled person, the grade the children were in, the age of the children, the gender of the children, whether or not the children had knowledge of a disabled child in the school, and whether the children had seen a "Kids on the Block" program at some time previously. It was expected that knowing a disabled person, grade, and previous contact with the program would all be positive predictors of children's pretest scores.

For the total score at time 1, there were four significant predictors that entered the final equation, including whether or not the children knew a disabled person, the children's grade, whether the children had

knowledge of a disabled child in the school, and whether the children had seen the "Kids on the Block" program previously. These variables, their standardized beta weights, and the significance levels for each are shown in Table 4. This final equation accounted for 10.2% of the variance, and was significant overall,  $F(4,462) = 13.06, p < .001$ . The scores were more positive if the children knew a disabled person, were in a higher grade, had a disabled child in their school, and had seen the program before, as hypothesized. Gender and age did not enter as predictors in the final equation.

Table 4  
Total Scores at Time 1

<u>Variable</u>	<u>Beta</u>	<u>Significance</u>
know a disabled person	+.224	.001
grade	+.112	.05
disabled child in the school	+.106	.05
have seen the program before	+.092	.05
gender	-.057	n.s.
age	-.015	n.s.

For the knowledge scores at time 1, there were two significant predictors that entered the final equation, including the children's grade and whether or not the children knew a disabled person. These variables, their standardized beta weights, and the significance levels for each are shown in Table 5. This final equation accounted for 10.7% of the variance, and was significant overall,  $F(2,464) = 27.73, p < .001$ . The scores were more positive if the children knew a disabled person, and were in a higher grade.

Table 5  
Knowledge Scores

<u>Variable</u>	<u>Beta</u>	<u>Significance</u>
grade	+.240	.001
know a disabled person	+.195	.001

For the attitude scores at time 1, there were two significant predictors that entered the final equation, including whether or not the children knew a disabled person, and whether or not there was a disabled child in the school. These variables, their standardized beta weights, and the significance levels for each are shown in Table 6. This final equation accounted for 6.3% of the variance, and was significant overall,

$F(2,464) = 15.64, p < .001$ . The scores were more positive if the children knew a disabled person, and if there was a disabled child in the school.

A parallel step-wise regression analysis on the students' baseline scores in the 1-year group revealed that those who had seen the program one year previously ( $N = 85$ ) scored higher at time 1 than those (few) students ( $N = 11$ ) who had entered the school subsequently and had not seen the program. The final equation accounted for 9.8% of the variance and was significant overall,  $F(1,66) = 8.29, p < .005$ , with this factor as the only significant predictor.

Table 6

## Attitude Scores

<u>Variable</u>	<u>Beta</u>	<u>Significance</u>
know a disabled person	.210	.001
disabled child in the school	.106	.05

Changes over Time in the Treatment Phase

Mean scores on the entire form, for the pretest, were as follows for the three groups of children. The



control group, with an N = 128, scored 15.5 (sd = 3.84). The treatment group scored 16.25 (sd = 4.28) with an N = 257. The group who saw the program a year ago, with an N = 96, scored 17.23 (sd = 4.29). At the time of the first post test, approximately one day after the treatment group saw the last presentation, which involved a speaker, the control group scored 16.45 (sd = 4.42), the treatment group scored 18.23 (sd = 4.54), and the group who saw the program a year ago scored 18.98 (sd = 4.17). At the time of the second post test, about 1 month later, the control group scored 17.61 (sd = 3.70), the treatment group scored 17.09, (sd = 5.04) and the group who saw it a year ago scored 15.93 (sd = 5.23). These means are shown in Figure 1.

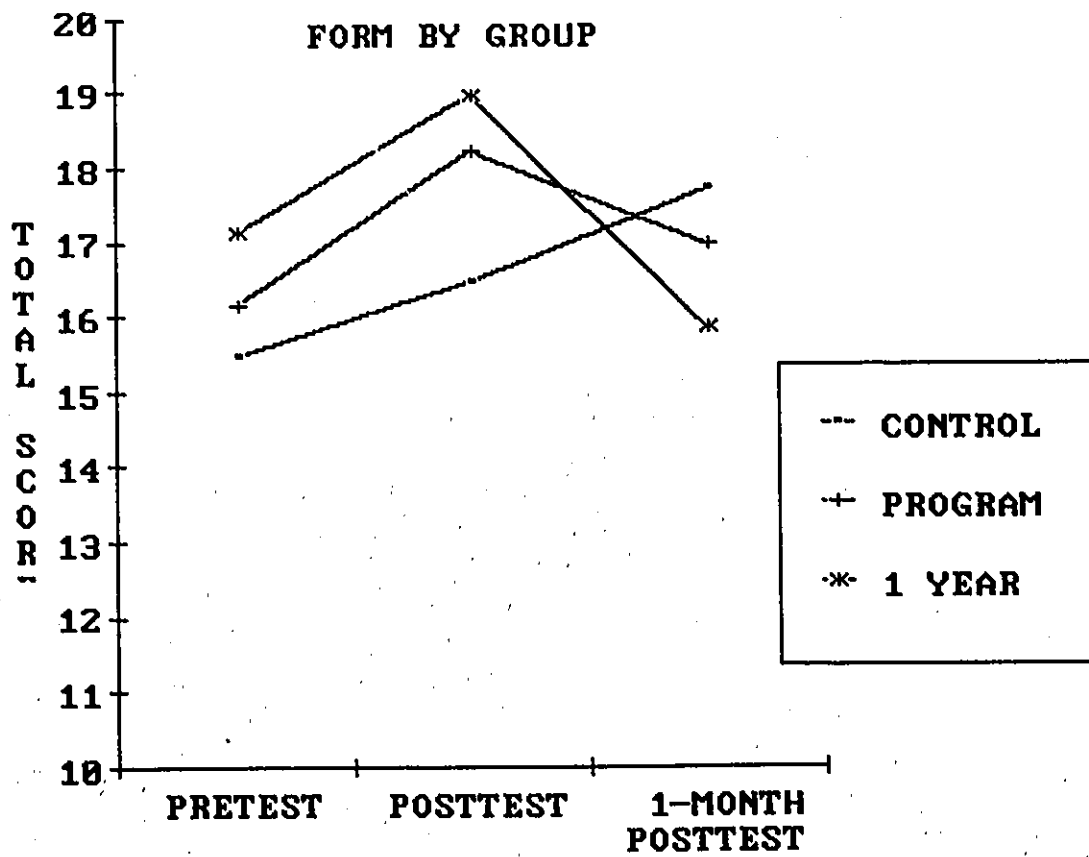


Figure 1

A two-way analysis of variance (ANOVA) was conducted, with group (3) as a between-participant factor, and time (3) as a repeated measures factor. This analysis revealed significant time of testing effects,  $F(2,956) = 28.35$ ,  $p < .001$ . There was no main effect of group,  $F(2,478) = 1.80$ ,  $p > .05$ . However, there was a significant Group X Time interaction as predicted,  $F(4,956) = 16.17$ ,  $p < .001$ .

Follow-up simple effects ANOVAs were conducted at each time of testing to investigate this interaction. At pretest (Form1), the ANOVA revealed a significant main effect for group,  $F(2,478) = 4.44$ ,  $p < .05$ . Follow-up contrasts revealed that the treatment and control groups did not differ ( $p > .10$ ), whereas the 1-year group scored significantly higher than the other two groups combined,  $t(559) = 2.75$ ,  $p < .01$ , as predicted.

A simple effects ANOVA at time 2 revealed a significant main effect for group,  $F(2,478) = 10.44$ ,  $p < .01$ . Follow-up tests indicated that the treatment group scored significantly higher than the control,  $t(508) = 3.76$ ,  $p < .01$ , and the treatment and 1-year groups combined were significantly higher than the control group,  $t(508) = 3.22$ ,  $p < .01$ .

A simple effects ANOVA at time 3 again showed a significant main effect for group,  $F(2,478) = 3.53$ ,  $p <$

.05. Follow-up contrasts revealed that the treatment and control groups did not differ,  $t(553) = -1.57$ ,  $p$  not significant, contrary to the hypothesis. Unexpectedly, however, the control group scored significantly higher than the treatment and 1-year groups combined,  $t(551) = 2.79$ ,  $p < .01$ .

Mean scores for the knowledge part of the form, on the pretest, were as follows for the three groups of children. The control group, with an  $N = 128$ , scored 7.63 ( $sd = 2.02$ ). The treatment group scored 7.98 ( $sd = 2.05$ ), with an  $N = 257$ . The group who saw the program a year ago, with an  $N = 96$ , scored 8.69 ( $sd = 2.31$ ). At the time of the first post test, approximately one day after the treatment group saw the last presentation, the control group scored 7.45 ( $sd = 2.51$ ). The treatment group scored 9.03 ( $sd = 2.27$ ), and the group who saw it a year ago scored 8.82 ( $sd = 2.05$ ). At the time of the second post test, about 1 month later, the control group scored 7.55 ( $sd = 2.06$ ). The treatment group scored 8.09 ( $sd = 2.46$ ), and the group who saw the program a year ago scored 7.16 ( $sd = 2.37$ ). These means are shown in Figure 2.

A two-way analysis of variance (ANOVA) was conducted with group (3) as a between participant factor and time (3) as a repeated measures factor. This analysis revealed a significant time of testing

effect for knowledge, with  $F(2,956) = 27.34, p < .001$ . There was a main effect of group,  $F(2,478) = 9.11, p < .001$ . There was also a significant Group X Time interaction, as predicted,  $F(4,956) = 16.63, p < .001$ .

Follow-up simple effects ANOVAs were conducted at each time of testing to interpret this interaction. At pretest (Form1), the ANOVA revealed a significant main effect for group,  $F(2,478) = 7.19, p < .05$ . Follow-up contrasts revealed that the treatment and control groups did not differ  $t(559) = 1.91, p$  not significant, whereas the 1-year group scored significantly higher than the other two groups combined,  $t(559) = 3.78, p < .001$ , as predicted.

A simple effects ANOVA at time 2 revealed a significant main effect for group,  $F(2,478) = 21.08, p < .001$ . Follow-up contrasts revealed that the treatment group scored significantly higher than the control group,  $t(508) = 6.51, p < .05$ , while the treatment and 1-year groups combined scored significantly higher than the control group,  $t(508) = 6.12, p < .001$ .

A simple effects ANOVA at time 3 revealed a significant effect for group,  $F(2,478) = 6.33, p < .05$ . Follow-up contrasts revealed that the treatment and control groups did not differ,  $t(550) = 1.92, p < .06$ , though this difference approached significance in the

predicted direction. However, the treatment group and the group who saw the program a year ago combined did not differ from the control group,  $t(508) = .19$ ,  $p$  not significant.

Mean scores on the attitude part of the form, for the pretest, were as follows for the three groups of children. The control group, with an  $N = 128$ , scored 7.25 ( $sd = 2.32$ ). The treatment group scored 7.70 ( $sd = 2.46$ ) with an  $N = 253$ . The group who saw the program a year ago, with an  $N = 96$ , scored 7.91 ( $sd = 2.77$ ).

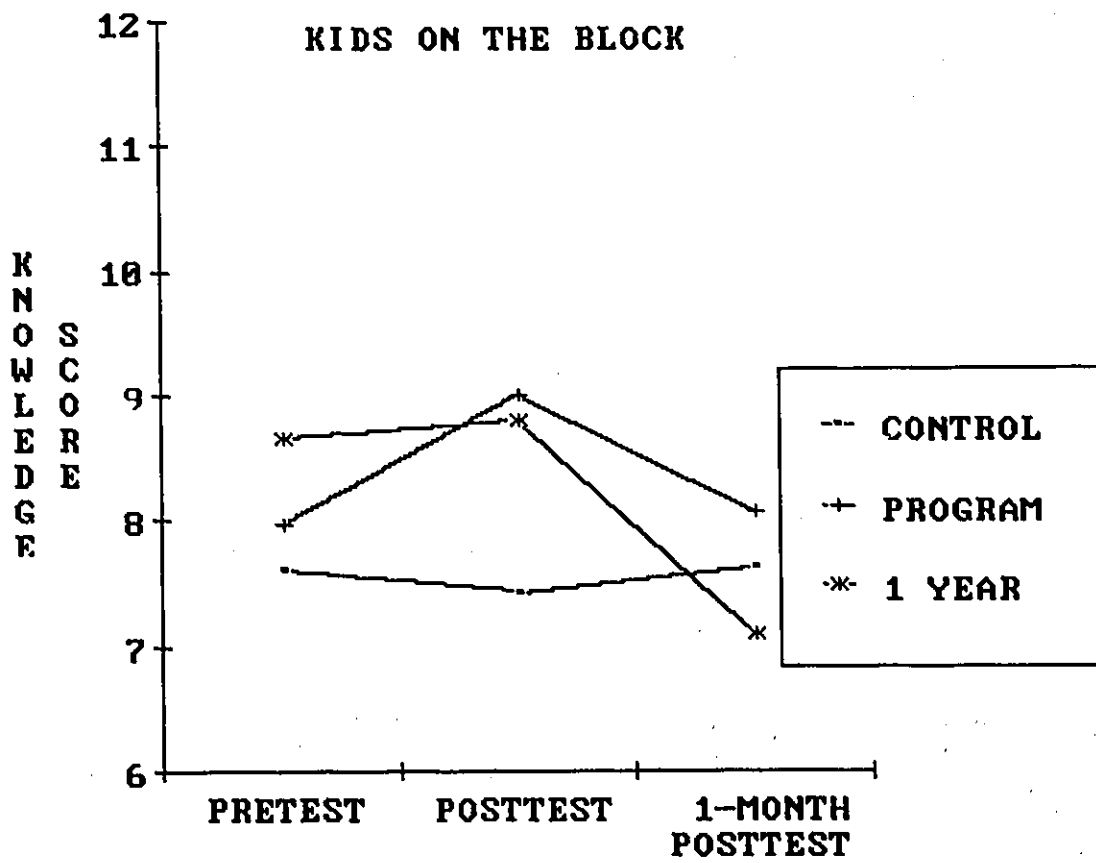


Figure 2

At the time of the first post test, approximately one day after the treatment group saw the last presentation, the control group scored 8.41 ( $sd = 2.45$ ). The treatment group scored 8.60 ( $sd = 2.45$ ), and the group who saw it a year ago scored 9.46 ( $sd = 2.43$ ). At the time of the second post test, about 1 month later, the control group scored 9.38 ( $sd = 2.38$ ). The treatment group scored 8.34 ( $sd = 2.81$ ), and the group who saw the program a year ago scored 8.27 ( $sd = 2.91$ ). These means are shown in Figure 3.

An analysis of variance (ANOVA) was conducted with group (3) as a between participant factor, and time (3) as a repeated measures factor. This analysis revealed a significant time of testing effect, with  $F(2,948) = 53.69$ ,  $p < .001$ . There was no main effect of group,  $F(2,474) = .90$ ,  $p$  not significant. There was a significant Group X Time interaction, as predicted,  $F(4,948) = 13.69$ ,  $p < .001$ .

Follow-up simple effects ANOVAs were conducted at each time of testing to interpret this interaction. At pretest (Form1), the ANOVA revealed a non - significant main effect for group,  $F(2,474) = 2.17$ ,  $p$  not significant. The treatment and control groups did not differ,  $t(557) = 1.49$ ,  $p$  not significant. The contrast for the group who saw the program a year ago versus the control and treatment groups combined was also not



significant,  $t(557) = 1.50$ ,  $p$  not significant, contrary to the hypothesis.

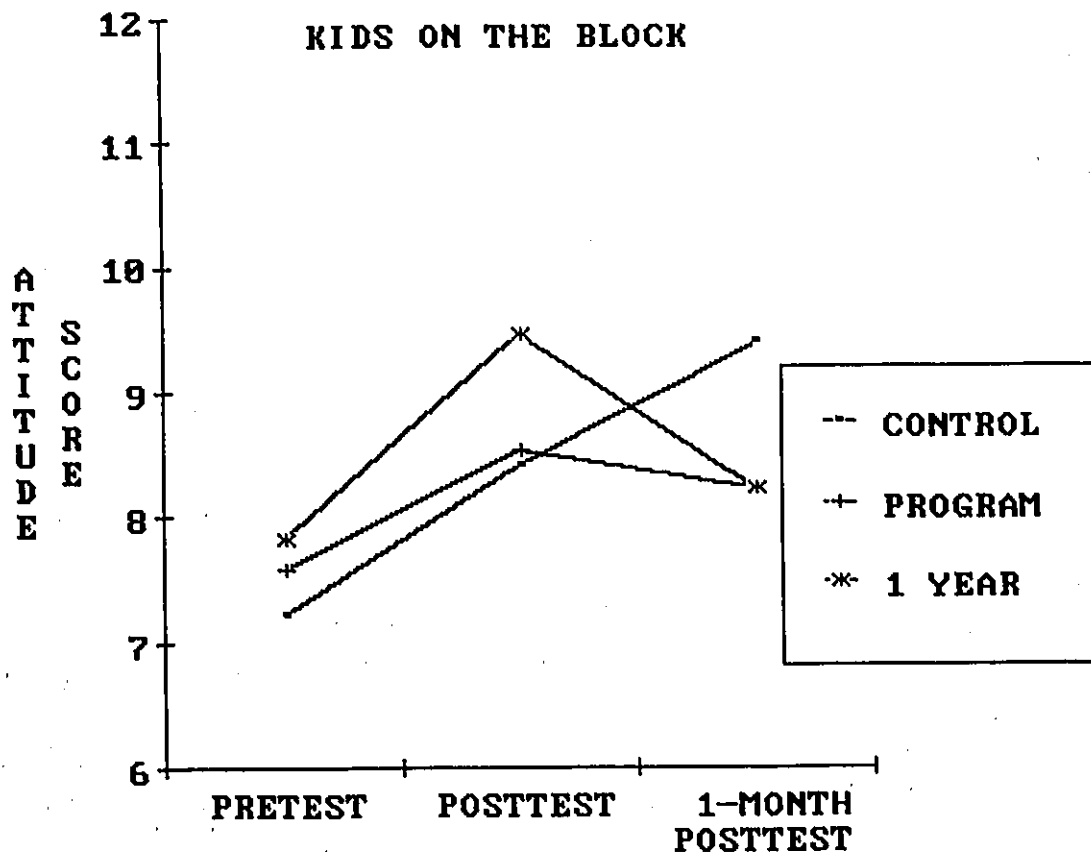


Figure 3

A simple effects ANOVA at time 2 revealed a significant main effect for group,  $F(2,473) = 5.75$ ,  $p < .01$ . Follow-up tests did not indicate a significant difference between the treatment and control groups,  $t(507) = 0.45$ ,  $p$  not significant. Follow-up contrasts revealed that the treatment and 1-year groups did differ from the control group,  $t(507) = 2.22$ ,  $p < .05$ , as predicted, with the two treatment groups showing more positive scores.

A simple effects ANOVA at time 3 revealed a significant main effect for group,  $F(2,474) = 7.11$ ,  $p < .01$ . Follow-up contrasts revealed that the treatment group scored significantly lower than the control group  $t(550) = -4.34$ ,  $p < .001$ . This difference was in the direction opposite to that predicted. As well, the control group scored significantly higher than the treatment and 1-year groups combined,  $t(550) = -4.37$ ,  $p < .001$ , again opposite to prediction.

When the questionnaires were being developed, the "Kids on the Block" committee wanted to address the issue of the impact of the program on the awareness of the children insofar as stimulating their thoughts towards what it would mean to have a disability. Therefore, item 25 asked the children if they had ever thought about what it would be like to be disabled. During the pretesting phase 104 (81%) children in the

control group said that they had thought about it, while 194 (75%) who were about to see the program had thought about it, and 63 (66%) who saw it a year ago had thought about it. During the first post test, only 77 (60%) children in the control group claimed to have thought about it, while the number of those who had just seen the program who had thought about being disabled remained at 194 (75%). The number who saw it a year ago who now reported thinking about it rose slightly to 67 (70%). During the second post-test, 109 (85%) children in the control group had thought about what it would be like to have a disability, 210 (82%) who had just finished seeing the program series had thought about it, and 50 (52%) who had seen it a year ago had thought about it. Thus, the majority of children reported thinking about the experience of disability, and both the treatment and controls were a little more likely to have thought about this by the end of the data collection than at the beginning.

#### Students' Program Evaluation Responses

A content analysis was conducted on the program evaluation forms for the students. Following are the questions, and the number of children who answered in the categories determined by the researcher. A total of 282 students filled out the questionnaire. However, not every student answered every question. Each

response was classified into only one exclusive category per question, as reported below.

Question 1 asked: "Before the program started, were you looking forward to seeing it? Why or why not?" Of the group, 149 (53%) wanted to see it because of general interest, 81 (29%) saw it specifically as a learning opportunity, 6 (2%) did not know about the program, and 20 (7%) children stated that they were not looking forward to the program. Clearly, then, most children were generally positive about the program.

Question 2 asked: "Have you ever thought about what it would be like to be disabled? Tell me about it." In total, 85 (30%) children thought that they would have difficulty coping. In contrast, 74 (26%) had not thought about it, but included nothing more specific. 58 (21%) said that they had thought about it, 31 (11%) felt that it would be isolating, and 17 (6%) had already pretended that they were disabled. Obviously many children are curious about what it would be like to have a disability.

Question 3 asked: "What did you like about the program?" Overall, 124 (44%) of the children liked the puppets, 41 (15%) liked the learning opportunity, 39 (14%) found the program interesting, 30 (11%) liked everything, and 14 (5%) liked the songs. The puppets

do appear to have a significant impact upon the children, at least in their own reports.

Question 4 asked: "What didn't you like about the program?" For this item, 165 children (59%) liked everything about the program, 68 (24%) didn't like something, such as the songs or sitting on the floor, and 6 (2%) were undecided. Thus, a large majority of the children were completely satisfied with the program.

Question 5 asked: "What did you learn from the guest speaker?" Of the total sample, 82 (29%) gained knowledge, 76 (27%) learned a positive attitude, 28 (10%) of the children learned about the difficulty of having a disability, and 21 (7%) didn't learn anything. It is encouraging to note that many children acquired knowledge or developed more positive attitudes, which are directly in line with the goals of the program.

Question 6 asked: "Do you have any questions?" Most, or 167 (59%) didn't have any questions. However, 31 (11%) of the children still had questions, such as, what is it like to have a disability, or, is it scary to be disabled? There may have been a number of causes for these questions.

Question 7 asked: "Is there anything you would like to tell us?" To this question, 72 (26%) said no,

whereas 45 (16%) gave praise for the program. Thirteen (5%) expressed empathy for persons with disabilities, and 9 (3%) of the children said thank-you. This was an opportunity for the children to express anything if they still wished to do so.

Overall it can be assumed that the children themselves felt they derived some benefits from the program. Most were enthusiastic about the program, and reported learning a great deal from it.

## Discussion

### Summary of Results

The test-retest reliability among the three test forms was moderate, with the greatest reliability between forms two and three, which had a Pearson-correlation coefficient of .70 (across a one-month period), and the lowest between forms one and three, a coefficient of .48. When the form was separated into its components of knowledge and attitude, the reliability for the knowledge and attitude subscales of the forms was slightly lower, but still significant.

A validity analysis was conducted to assess the relationship of various factors, previously found predictive of attitudes towards the handicapped, to scores on the pretest form. The four significant predictors which entered the equation for the total score at pretest included whether or not the children knew a disabled person, the grade of the children, whether the children had knowledge of a disabled child in the school, and whether the children had seen the "Kids on the Block" program previously. These results were generally consistent with previous literature, supporting the validity of the measure. It was interesting to note further that when these scores were divided into knowledge and attitudes, the scores for



knowledge were more positive if the children knew a disabled person, and were in a higher grade, while the scores for attitude were significantly higher if the children knew a disabled person, and if there was a disabled child in the school.

Three groups were compared at three points in time to assess the impact of the "Kids on the Block" program: a control group, a treatment group, and a 1-year follow-up group. During the pretesting stage, results were as predicted. Children who saw the program a year ago did significantly better than did the control and treatment groups, which did not differ from each other. Results of the first posttest showed that the group who saw the program a year ago still did slightly better on the entire form than did the treatment group, and this treatment group, who had just finished seeing the program series, did significantly better than the control group. This suggests that the program does have an immediate impact upon the children. When the form was separated into knowledge and attitude scores, the children who saw the program a year ago still scored somewhat higher on both.

Overall testing at time three revealed unexpectedly that the group who saw the program a year ago scored lower than the treatment and control groups, which now did not differ from each other. Separating

the test scores into knowledge and attitude subscales showed that the treatment group still tended to exceed the controls on knowledge scores ( $p < .06$ ), as expected, but scored significantly lower than the controls on attitudes.

The program evaluation opinionnaires showed that the children were looking forward to seeing the program before the onset of it, and generally enjoyed the program, especially the puppets. From the responses given about guest speakers, it would appear that this element has been a valuable addition to the program.

#### Discussion of the Hypotheses

The first hypothesis stated that individuals' test-retest scores for the control group should be generally consistent over the three times of testing, since these children do not receive treatment, and the forms are presumed to be comparable to one another. Given this, the three questionnaire forms developed and administered to this control group should demonstrate test-retest reliability over time. The observed test-retest correlations ranged from .35 to .73 (all  $ps < .001$ ). Although the reliability was only moderate for total scores across the three forms, as well as for the knowledge and attitude scores separately, it was felt that was reasonable for the first use of this questionnaire. There was an obvious discrepancy

between forms one and three, with the reliability being only .48. In fact, Form 1 (pretest) showed generally lower test-retest correlations with all the other tests (see Tables 1-3).

There may have been any number of reasons for the moderate fluctuations of scores on these measures. First, the forms may have been too difficult for the children. Some teachers, especially those of the younger children, commented that their students had great difficulty with some of the questions. The pretest (Time 1) may have been the least reliable with the other two forms, since it was given first, and the children may not have understood how to answer the questions as well initially. Finally, it is worth noting that the retest intervals across the three administrations were about one month, perhaps long enough to expect some "natural" fluctuations in individual participants' scores as well.

The second hypothesis stated that the questionnaire, which assesses both knowledge and attitudes, should prove an effective instrument for measuring nonhandicapped children's dispositions towards the handicapped. It was predicted that the instrument would demonstrate more positive attitudes and greater knowledge among those children who had experienced more contact with the handicapped,

supporting the construct validity of the measure in relation to previous research evidence (Voeltz, 1980; Yuker, 1976). As predicted, those children who knew a disabled person, or were exposed to a disabled child at school, scored more positively on the measure overall at the pretest (see Table 4). It was also predicted that those who were at a higher grade level would score more positively (Chase, Lebewohl, Mulcahy & Shiffer, 1983; Inderbitzen & Best, 1986). It was certainly true that those who were at a higher grade level did better on the knowledge part of the questionnaire, though this was not observed for the attitude section (see Tables 5 and 6).

It was also true that for the total score at pretest, those in the treatment and control groups who had seen the program previously did better on the questionnaires than did those who hadn't (see Table 4). Consistent with this, for the school which had had the program a year ago, there were 11 children who had not seen the program (presumably due to absence or attendance elsewhere last year). When a regression analysis was conducted with this group, too, whether or not the children had seen the program previously was a clear predictor of the children's scores on the questionnaires. Both of these findings lend support to the argument that the program may have some effects on

children's attitudes towards, and knowledge about, persons with disabilities. Also, because these subgroups in the various conditions had apparently been exposed to the "Kids on the Block" program quite a while previously, these results suggest that treatment effects may last for some time.

A more direct test of program effects was provided by the study of the control versus treatment conditions over the observed period of the "Kids on the Block" program. However, the third hypothesis stated that children in the control group and in the treatment group should score equivalently on the pretest; and the children involved in the program should display significantly greater knowledge and more positive attitudes on the posttests, compared with the controls. It was also expected that the group which had been exposed to the program one year previously would score higher than the treatment and control groups at Time 1 (see Figure 1).

As predicted, the scores of the control group and the group who would be taking part in the program did not differ at the time of the pretest, whereas the group who saw the program a year ago scored significantly higher than the other two groups combined. At the first post-test, the treatment group scored significantly higher than the controls,

indicating an immediate impact of the program (see Figure 1). However, it was evident that the treatment group made clearer gains in knowledge than they did in attitudes at Post-test 1 (see Figures 2 and 3). At the time of the first post test, the group who had just seen the program scored significantly higher than did the control group on knowledge. This was not demonstrated for attitude scores, however. At the time of the second post test, the group who had taken part in the program a year ago scored significantly lower than the other two groups, while the control group and the group who saw the program did not differ. This is a confusing finding; it seemed somewhat different for knowledge and attitude subscales as well. However, this would seem to indicate that the effects of the program are not especially long-lasting.

Thus the group who had just experienced the program showed a significant advantage at the time of the first post test compared to a control group, but had maintained little evidence of improvement by the second post test. This is not discordant with Anderson, Del-Val, Griffin, and McDonald (1983), who reported on observations of the "Kids on the Block" program. They found that the use of puppets was an ideal way to elicit enthusiasm from children, and to give them a common experience. They went on to explain

that exposing young children to programs such as this appears to make a difference, at least in the short run, in their attitudes towards the handicapped. However, these investigators did not provide any follow-up assessment at a later time, as was done in the current study after one month. Consistent with these findings as well, the study by Rosenbaum et al. (1986) found that the "Kids on the Block" program used alone had no measurable immediate impact on children's attitudes in their study, one week after the program's completion.

When the results for the entire form were examined, they showed that the control group continued to improve in scores over time. Surprisingly, the control group scored an overall mean of 15.5 at the pretest, which rose to 16.45 at the time of the first post test, and rose again to 17.61 at the time of the second post test. The most logical explanation for this phenomenon would seem to be that this group may have started looking at and learning about this topic, simply because of their exposure to the questionnaire.

The children who saw the program a year ago had shown higher scores than other groups at the pretest, consistent with the idea of long term, substantial program effects. They also showed higher scores at the first post test, but dropped dramatically by the time

of the second post test. This drop was definitely unexpected, and it can only be suggested that something extremely unusual was happening at the school during the third time of testing.

Additional evidence from the multiple regressions for pretest scores of the one-year group was also consistent with the hypothesis of a sustained effect of the program over the year. Children who did not see the program a year earlier in this school (due to absence) scored lower on the complete form than those who did. It should be noted that this particular school has many disabled children present compared to others in this study, and this fact may have influenced the children's responding in the direction of higher scores. Given these patterns, the finding that the mean for the one-year school dropped so far on the second post test seems anomalous, and likely indicates that something unusual was happening at that school during the third time of testing. Upon speaking to the principal of that school, it was still baffling as to what was happening, however.

The rate of return for the teachers' data was at best disappointing. There were not enough teachers who returned all of their forms, and therefore, results for the teachers' data could not be analyzed. With this in mind, one has to wonder if the teachers' behaviour is



influencing the children's behaviour. If the teachers did not see the program as being beneficial enough to continue participation in the study, can the children really be expected to behave any differently? It seems possible that the lack of sustained effects on the children's scores over time in the treatment group is related to these possibly unenthusiastic teacher reactions.

When initially contacted, the schools were all very enthusiastic about taking part in the evaluation. Nonetheless, it was the principals of the schools who gave permission for each school's involvement. At times, the teachers and students did not seem as enthusiastic as the principals. Certainly by the third round of testing, it became apparent that the children, and, indeed some of the teachers, were becoming bored with the testing procedures. Perhaps the testing would be more successful in the future if alternative methods could be employed as well.

At any rate, the findings from the later assessments in this study may not fully reflect the program's effects. However, it is clear that the initial gains made at immediate post-testing need to be supported further if they are to be maintained over time.

The fourth hypothesis stated that if the children find the program enjoyable, it is assumed that they will learn more from it. A program evaluation form, which was qualitative in nature, was used, so that it was possible to see how the children reacted.

From the program evaluation forms, it would appear that the children did enjoy the program and felt that they learned from it. Over 55% of the children stated that they enjoyed the program. Many could not find anything negative about it. Since the children's responses were, for the most part, positive, this researcher feels that the real gains in knowledge and the development of more positive attitudes, as suggested by the program evaluation forms, may be more substantial than apparently indicated by the results of the tests of knowledge and attitude on the questionnaire. Perhaps the moderate reliability scores for these scales indicate that some of the unusual patterns were due to measurement errors. As already noted, the pattern of results on the second post-test is especially puzzling.

#### Implications of the Results

Overall, the findings of this study would seem to imply that the "Kids on the Block" program does help children, in grades three to six, at least over the short term, to gain knowledge about, and perhaps to

have a more positive attitude towards, children with disabilities. However, there was little clear evidence that these changes in children's perspectives were sustained one month later, after the program ended.

Several possible factors that might account for this pattern were suggested. Teacher enthusiasm for the program may have waned. Children may have become bored filling out the questionnaires by the third session. The control group may have actually learned somewhat from its repeated testings. Regardless, this is a typical finding with many intervention programs with children (Noll, Scannell & Craig, 1979). Ways to sustain the impact of the program over a longer time period need to be considered.

In order to improve the program, The Independent Living Centre may want to consider developing other activities, which the teachers would then be able to use, to continue to encourage and foster more positive attitudes and the retention of knowledge for these children. One suggestion which may be feasible would be to develop a reading list of books available for age-appropriate children, concerning the subject of disability. They may also want to consider developing a resource centre, where teachers could get help in developing their own programs. Perhaps this would make

a significant difference with regard to the long-term effects of the program.

Another possible implication of these results is that the knowledge and attitude components of the program may operate somewhat independently. It was suggested by the results of this study that new knowledge about disabilities is easier for the children to grasp than is the acquisition of more positive attitudes toward handicapped persons. The scores on the knowledge part of the forms did show a more consistent gain after the program than did the scores on the attitude section (see Figures 2 and 3). It may be that knowledge was simply better measured on the questionnaires than was attitude. However, the program also may need to consider increasing its focus on attitude factors, in addition to the emphasis on knowledge about disabilities. Perhaps it has been assumed that providing knowledge and information will somewhat automatically translate into more positive attitudes about those with disabilities. This, however, may not be the case with children, at least judging from the present findings. As noted above, Snart and Mcguire (1986) reported a similar pattern in their results, with the program having a clearer impact on knowledge than on attitudes.

### General Observations about the Evaluation Process

Throughout the entire evaluation process, the Independent Living Centre was very enthusiastic, providing unlimited assistance, as well as vast amounts of encouragement. The "Kids on the Block" Committee had a lot of input when the surveys and program evaluation forms were being developed. They pointed out to the researcher that slightly changing the questionnaire for each time of testing might alleviate some of the children's boredom. They also provided useful feedback when the results were being interpreted.

Unfortunately, due to lack of time and resources, the survey forms and program evaluation questions were not piloted before their actual use. This caused some problems, because many teachers complained that some of the younger children did not understand all the questions. In turn, the teachers became frustrated when conducting the survey with the children when it took longer than was expected. Perhaps the results would be clearer if some of the questions were reworded, so that they would be more easily understood by younger children.

Upon completion of the thesis, the evaluator presented the results to the "Kids on the Block" program committee, and in the near future will be

working jointly with the "Kids on the Block" program co-ordinator and committee to develop a short seminar and written summary to present to the schools which participated in the project. This feedback is also being used to assist the Independent Living Center of Waterloo Region to develop a mission statement for the "Kids on the Block" program. It would be ideal to also do a presentation for the children. However, because of the rapid passage of time, this is difficult, and somewhat superfluous, because many of the older children have left the schools by now, and the younger ones may not remember the project.

#### Future Research and Limitations of Study

Although the questionnaire was considered reasonable for a first time effort, it needs more study to assess its validity. The questionnaire could be studied further in future research if it was used in conjunction with other standardized measuring instruments for attitudes toward handicapped persons, such as the Attitudes Towards Disabled Persons (ATDP) Scale, or the Chedoke-McMaster Attitudes toward Children with Handicaps (CATCH) scale. This would provide an assessment of the questionnaire's criterion validity.

Obviously, there is still much research to be conducted with the "Kids on the Block" program.

Studies need to be done to determine whether or not a follow-up program in the classroom would help to enhance the long-term effects of the "Kids on the Block" program. It would also be interesting to determine the effects the program has on the treatment of children with disabilities in the classroom by nonhandicapped children. Perhaps an observational study could be conducted to investigate any actual behaviour changes toward handicapped students that would be exhibited following exposure to the program.

One major limitation of the present study was that the three forms were all somewhat different from one another, and each was given at a different time period in the testing. Thus, the effects of form and time of testing could not be separated from one another. Although this was done purposefully, in hopes that the children would not become bored, it would be useful in the future to give the same test on different occasions. In this way, separate forms of the test could then be developed, and their equivalence to one another could be evaluated.

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Appendix I

March 20, 1990.

Ms. V.A. Baker  
Independent Living Centre of Waterloo Region,  
266A Marsland Drive,  
Waterloo, Ontario.  
N2J 3Z1

Dear parents:

We at ILCWR are constantly trying to improve our services to the community. We are at present evaluating our "Kids on the Block" program, which consists of a troupe of puppets representing various disabilities. Our "Kids" go into schools and explain to your children what it is like to have a disability. During the past eight years we have been very successful in this endeavour.

However, there is always room for improvement. We are hoping to explore knowledge gained by the children through exposure to our program, and to monitor the change in attitude toward persons with disabilities, experienced because of our program. Your child will be known to us only by number, and thus confidentiality will be assured. We sincerely hope that you will allow your child to participate in this worthwhile project. If you have any concerns, please refer them to the school.

In order to explore this phenomenon we have to examine the knowledge and attitudes of children who are not taking part in our program at the moment. If your child is not taking part in our program, we ask that you allow him/her to be part of the control group.

We ask that if you do not wish your child to participate in this project that you notify the school immediately. Thank you.

Sincerely,

Valerie A. Baker  
Program Evaluator



February 20, 1990.

Ms. V.A. Baker  
Independent Living Centre of Waterloo Region,  
266A Marsland Drive,  
Waterloo, Ontario.  
N2J 3Z1

Dear :

We at ILCWR are constantly trying to improve our services to the community. We are at present evaluating our "Kids on the Block" program, which consists of a troupe of puppets representing various disabilities. Our "Kids" go into schools and explain to your children what it is like to have a disability. During the past eight years we have been very successful in this endeavour. However, there is always room for improvement.

Through a three part survey, we are hoping to explore knowledge gained by the children through exposure to our program, and to monitor the change in attitude toward persons with disabilities experienced because of our program.

In order to ensure that this project is scientifically sound, we are asking that you and your students and teachers in grades three to six to take part in our evaluation as part of the control group. We are asking that they complete the survey at three specified times during April and May, which will correspond with the children taking part in our program. Having a control group will help us discover whether our program is having a significant impact on the population we serve. Someone will be contacting you shortly to discuss this matter further.

Sincerely,

Valerie A. Baker  
Program Evaluator

APPENDIX II  
OUTCOME MEASURING INSTRUMENTS

## TEACHER INSTRUCTIONS FOR CONTROL GROUPS

Dear Teacher:

Thank you very much for taking part in this survey. As you can see from perusing the material, the survey will not take long to complete. In early September of 1991, you will receive a copy of the general results and conclusions of this survey.

Your packet should contain the following:

- letters of information for parents
- cover sheets with student information
- instructions on how to fill out the cover sheets
- 1 copy of student surveys: Form 1  
Form 2  
Form 3
- Copies of student answer sheets: Form 1  
Form 2  
Form 3
- 1 copy of cover sheet with general teacher information
- 1 copy of teacher survey: Form 1  
Form 2  
Form 3

\*If you are missing any of these items, or do not have enough, please contact The Independent Living Centre immediately at 746-2700, and we will be sure that you get what you need.

Instructions:

Step One:

On the day you receive your packet of materials, please send letters to parents home with the children.

**Step Two:**

On \_\_\_\_\_, 1990, please fill in your (the teacher's) cover sheet containing general information. Also have your children fill in their cover sheets.

**Step Three:**

On the same day, \_\_\_\_\_, 1990, seven days prior to the onset of the "Kids on the Block" program, please fill in the teacher's survey, Form 1, when you have a few spare moments. Be sure to fill in the school and teacher numbers. At some point during that day read aloud to the class, the children's survey questions contained in the children's survey, Form 1. After each question, have the children circle the response of choice on their answer sheets. Again, be sure to have the children fill in the school, teacher, and student numbers at the top of the answer sheets. Please assure the children that there are no right or wrong answers. After this task has been completed, collect answer sheets and store in a safe place.

**Step Four:**

On \_\_\_\_\_, 1990, one day after the completion of the "Kids on the Block" program, please fill in the teacher's survey, Form 2, when you have a few spare moments. Be sure to fill in the school and teacher numbers. At some point during that day read aloud to the class, the children's survey questions contained in the children's survey, Form 2. After each question, have the children circle the response of choice on their answer sheets. Again, be sure to have the children fill in the school, teacher, and student

numbers at the top of the answer sheets. Please assure the children that there are no right or wrong answers. After this task has been completed, collect answer sheets and store in a safe place.

**Step Five:**

On \_\_\_\_\_, 1990, please fill in the teacher's survey, Form 3, when you have a few spare moments. Be sure to fill in the school and teacher numbers. At some point during that day read aloud to the class, the children's survey questions contained in the children's survey, Form 3. After each question, have the children circle the response of choice on their answer sheets. Again, be sure to have the children fill in the school, teacher, and student numbers at the top of the answer sheets. Please assure the children that there are no right or wrong answers.

**Step Six:**

After completing step five, return all completed forms to their owners. Please have students place them in this order: Cover Sheet on top, followed by Answer Sheet Form 1, followed by Answer Sheet Form 2, followed by Answer Sheet Form 3. Would you please staple them together, and collect. Please take the teacher's cover sheet and three survey forms and secure them together with a paper clip.

**Step Seven:**

On \_\_\_\_\_, 1990, someone from the Independent Living Centre will be around to collect all completed materials. Please have them all together and back in your packet.

\* Thank you for taking part in this survey. Your support was greatly appreciated.

## TEACHER INSTRUCTIONS FOR TEST GROUPS

Dear Teacher:

Thank you very much for taking part in this survey. As you can see from perusing the material, the survey will not take long to complete. In early September of 1990, you will receive a copy of the general results and conclusions of this survey.

Your packet should contain the following:

- letters of information for parents
- cover sheets with student information
- instructions on how to fill out the cover sheets
- 1 copy of student surveys: Form 1  
Form 2  
Form 3
- Copies of student answer sheets: Form 1  
Form 2  
Form 3
- copies of final student program evaluation forms
- 1 copy of cover sheet with general teacher information
- 1 copy of teacher survey: Form 1  
Form 2  
Form 3
- 1 copy of final teacher evaluation form.

\*If you are missing any of these items, or do not have enough, please contact The Independent Living Centre immediately at 746-2700, and we will be sure that you get what you need.

Instructions:

Step One:

On the day you receive your packet of materials, please send letters to parents home with the children.

Step Two:

On \_\_\_\_\_, 1990, please fill in your (the teacher's) cover sheet containing general information. Also have your



children fill in their cover sheets.

Step Three:

On the same day, \_\_\_\_\_, 1990, seven days prior to the onset of the "Kids on the Block" program, please fill in the teacher's survey, Form 1, when you have a few spare moments. Be sure to fill in the school and teacher numbers. At some point during that day read aloud to the class, the children's survey questions contained in the children's survey, Form 1. After each question, have the children circle the response of choice on their answer sheets. Again, be sure to have the children fill in the school, teacher, and student numbers at the top of the answer sheets. Please assure the children that there are no right or wrong answers. After this task has been completed, collect answer sheets and store in a safe place.

Step Four:

On \_\_\_\_\_, 1990, one day after the completion of the "Kids on the Block" program, please fill in the teacher's survey, Form 2, when you have a few spare moments. Be sure to fill in the school and teacher numbers. At some point during that day read aloud to the class, the children's survey questions contained in the children's survey, Form 2. After each question, have the children circle the response of choice on their answer sheets. Again, be sure to have the children fill in the school, teacher, and student numbers at the top of the answer sheets. Please assure the children that there are no right or wrong answers. Also on that same day, would you and your children please fill in the Final Program

Evaluation Forms. After this task has been completed, collect answer sheets and evaluation forms and store in a safe place.

Step Five:

On \_\_\_\_\_, 1990, twenty eight days after the completion of the "Kids on the Block" program, please fill in the teacher's survey, Form 3, when you have a few spare moments. Be sure to fill in the school and teacher numbers. At some point during that day read aloud to the class, the children's survey questions contained in the children's survey, Form 3. After each question, have the children circle the response of choice on their answer sheets. Again, be sure to have the children fill in the school, teacher, and student numbers at the top of the answer sheets. Please assure the children that there are no right or wrong answers.

Step Six:

After completing step five, return all completed forms to their owners. Please have students place them in this order: Cover Sheet on top, followed by Answer Sheet Form 1, followed by Answer Sheet Form 2, followed by Answer Sheet Form 3 followed, by student program evaluation forms. Would you please staple them together, and collect. Please take the teacher's cover sheet, three survey forms and evaluation forms and secure them together with a paper clip.

Step Seven:

On \_\_\_\_\_, 1990, someone from the Independent Living Centre will be around to collect all completed materials. Please have

them all together and back in your  
packet..

\* Thank you for taking part in this survey. Your  
support was greatly appreciated.

## TEACHER EVALUATION FORMS

## COVER SHEET

Please record your school and teacher numbers found on the back of your survey packet below.

School Number \_\_\_\_\_

Teacher Number \_\_\_\_\_

General Information

1. Are you male or female? \_\_\_\_\_
2. What age range are you in? (Circle 1)  
25-34    35-50    over 50
3. What Grade do you teach? \_\_\_\_\_
4. Do you know a person with a disability? \_\_\_\_\_
5. Is/are there a child/children who have disabilities at your school? \_\_\_\_\_
6. Have you seen the "Kids on the Block" before?  
\_\_\_\_\_

## FORM ONE

School No. \_\_\_\_\_ Teacher No. \_\_\_\_\_ Date: \_\_\_\_\_

Please circle your response. Remember there are no correct or incorrect responses.

## Teacher Survey Questions

1. If a child with a disability is integrated into a regular class, it is the responsibility of that teacher to involve him/her in all class activities.

disagree      don't know      agree

2. A child who is blind can be integrated into a class with sighted children.

disagree      don't know      agree

3. A regular class would be disrupted by the presence of a child with a disability.

agree      don't know      disagree

4. The proper term for a child who can't hear or speak is deaf and dumb.

agree      don't know      disagree

5. A child with a disability should always be in a class with other children with similar disabilities.

agree      don't know      disagree

6. A child with a learning disability may feel frustrated because others consider him stupid.

disagree      don't know      agree

7. When a child with a mental disability grows up he will probably have to be employed in a sheltered workshop.

agree      don't know      disagree

8. A child with a disability would probably not be considered a best friend by a child without a disability.

disagree      don't know      agree

9. A child with behaviour problems has trouble dealing with his/her feelings.

disagree      don't know      agree

10. A child with cerebral palsy has trouble with muscle coordination.

disagree      don't know      agree

11. A child with a disability never does well in school.

agree      don't know      disagree

12. A child who is blind should not be left unattended because he will bump into things.

disagree      don't know      agree

13. It is acceptable to exclude a child with a disability from an activity in which he can not keep up.

agree      don't know      disagree

14. A child who is deaf cannot communicate with those who can hear.

agree      don't know      disagree

15. A child with a learning disability can still accomplish a great deal if special teaching methods are utilized in teaching him/her.

disagree      don't know      agree

16. A first meeting with a child with a mental disability would be very intimidating.

agree      don't know      disagree

17. Disabled children should only take part in special playtime activities especially designed for them.

agree      don't know      disagree

18. A child with a behaviour problem would be a bad influence upon the class.

agree      don't know      disagree

19. A child with a disability would be a problem in a regular class, because he would slow the other children down.

agree      don't know      disagree

20. A child with cerebral palsy can't have as much fun as a child without a disability.

agree      don't know      disagree

21. A child with a disability cannot get a good job when he/she grows up.

agree      don't know      disagree

22. There are some school activities in which disabled students should not be included.

agree      don't know      disagree

23. I would enjoy having a child with a disability in my class.

disagree      don't know      agree

24. A child with a disability needs to have a good self-image.

disagree      don't know      agree

25. I have thought about what it would be like to be disabled.

disagree      don't know      agree





7. A child who is mentally handicapped like Ellen Jane will always have to be employed in a setting especially designed for persons who are retarded.

yes                      don't know                      no

8. It would be unlikely for a child who is disabled to have a best friend who is not disabled.

no                      don't know                      yes

9. A child who is emotionally impaired like Jimmy has trouble dealing with his/her feelings.

no                      don't know                      yes

10. A child with cerebral palsy like Mark has poor muscle coordination.

no                      don't know                      yes

11. A child with a disability can't be expected to do well in school.

yes                      don't know                      no

12. A child who is blind like Renaldo may use a white cane, so as not to bump into things.

no                      don't know                      yes

13. A way can always be found to include a child with a disability in a classroom activity.

no                      don't know                      yes

14. A child who is deaf like Mandy can communicate only with sign language.

no                      don't know                      yes

15. A child with a learning disability like Jennifer can accomplish a lot.

no                      don't know                      yes

16. Meeting a child with a mental disability like Ellen Jane for the first time would be hair-raising.

yes                      don't know                      no

17. At recess, there should be segregated activities for children with disabilities.

no                      don't know                      yes

18. A child with an emotional impairment like Jimmy would be a bad influence upon the class.

yes                      don't know                      no

19. In a regular class, a child with a disability would slow everyone down.

no                      don't know                      yes

20. A child with cerebral palsy like Mark can't enjoy life as much as a child without a disability.

yes                      don't know                      no

21. Children with disabilities can have successful careers when they grow up.

no                      don't know                      yes

22. Children with disabilities should be included in all school activities.

no                      don't know                      yes

23. Having a child with a disability in my class would be an enjoyment.

no                      don't know                      yes

24. A child with a disability needs to feel good about himself.

no                      don't know                      yes

25. I have thought about what it would be like to be disabled.

no                      don't know                      yes

F I N A L  
T E A C H E R   P R O G R A M   E V A L U A T I O N

This form is to be filled in after the completion of the second set of survey questions, one day after the completion of the program.

1. Why did you want your class to see the "Kids on the Block" program?
  
  
  
  
  
  
  
  
  
  
  2. Have you had an opportunity to discuss the issue of disability with your class prior to seeing the program? (Briefly discuss)
  
  
  
  
  
  
  
  
  
  
  3. What do you view as the strengths of the program?
  
  
  
  
  
  
  
  
  
  
  4. What do you view as the weaknesses of the program?
  
  
  
  
  
  
  
  
  
  
  5. Did the guest speaker cover the issues which needed to be addressed?
  
  
  
  
  
  
  
  
  
  
  6. Has the topic of disabilities come up since you have seen the program? If so, how?
  
  
  
  
  
  
  
  
  
  
  7. What has changed, if anything, within the classroom, schoolyard or other areas?
- Further comments: (Please use back if necessary)







## S T U D E N T   E V A L U A T I O N   F O R M S

## General Information

The following 3 numbers will be given to each student by his/her teachers and should appear along with the rest of the information asked for on this sheet, as the cover page of the answer sheets given to each student.

The first number will be the number assigned to each particular school for the purposes of this study. This number is to be found on the back of your survey packet.

School Number \_\_\_\_\_

The second number will be that assigned to individual teachers for this study. This number too will be found on the back of the survey packet.

Teacher Number \_\_\_\_\_

The third number will be that given to each student for the duration of the study. We ask that each teacher assign each student an identifying number according to alphabetical order. It is imperative that each child get his own forms, so that we can get accurate measurements over time. In this way, confidentiality will be assured.

Student Number \_\_\_\_\_

Please read the following questions to your students and have them place the answer on the cover sheet.

1. Are you a boy or a girl?      Circle one.
2. What is your age?      \_\_\_\_\_
3. What grade are you in? \_\_\_\_\_
4. Do you know a person with a disability?      yes      no  
Circle one.
5. Is/are there a child/children who have disabilities at your school? yes no      Circle one
6. Have you seen "The Kids on the Block" Program before?



## Student Survey Questions

## Form One

Read each survey statement aloud to your class.

1. A child with a disability should watch games played by other children, but should not take part in those games.

agree don't know disagree

2. A child who is blind can learn to read in a special way, using his/her fingers.

agree don't know disagree

3. It is the fault of the disabled child if he doesn't get along with his/her classmates.

agree don't know disagree

4. A child who is deaf is also dumb.

agree don't know disagree

5. A child with a disability should always be in a class with children with similar disabilities.

disagree don't know agree

6. A child with a mental disability will never grow up to be responsible enough to have a good job.

agree don't know disagree

7. A child with a disability could not be as good a friend as a child without a disability.

agree don't know disagree

8. A child who has behaviour problems will have trouble dealing with his/her feelings.

disagree don't know agree

9. A child with cerebral palsy has trouble controlling his/her movements.

disagree don't know agree

10. A child with a disability can't do well in school.

agree don't know disagree

11. A child who is blind cannot walk around alone because he will bump into things.

agree don't know disagree

12. At recess we should change games to include children with disabilities.

agree don't know disagree

13. A child who is deaf cannot communicate with those who can hear.

agree don't know disagree

14. A child with a mental disability would be scary to meet for the first time.

disagree don't know agree

15. Disabled children should only take part in special playtime activities designed especially for them.

agree don't know disagree

16. A child with behaviour problems is a bad girl or boy.

agree don't know disagree

17. A child with a learning disability is stupid.

agree don't know disagree

18. A child with a disability causes problems in class because he slows non-disabled children down.

agree don't know disagree

19. A child with cerebral palsy can't have as much fun as a child without a disability.

agree don't know disagree

20. A child with a disability can not get a good job when he grows up.

agree don't know disagree

21. There are some activities in school in which it would be impossible to include a disabled child.

agree don't know disagree

22. I would enjoy playing with a child with a disability.

disagree don't know agree

23. A child with a disability needs to have a good image of himself.

disagree don't know agree

24. A child with a learning disability can still learn to do things with some special help.

disagree don't know agree

25. I have thought about what it would be like to have a disability.

disagree don't know agree

ANSWER SHEET			School No. _____	Teacher _____
No. _____	Stu. No _____	Form 1.	Date _____	
1.	Agree	Don't Know	Disagree	
2.	Agree	Don't Know	Disagree	
3.	Agree	Don't Know	Disagree	
4.	Agree	Don't Know	Disagree	
5.	Agree	Don't Know	Disagree	
6.	Agree	Don't Know	Disagree	
7.	Agree	Don't know	Disagree	
8.	Disagree	Don't Know	Agree	
9.	Disagree	Don't Know	Agree	
10.	Agree	Don't Know	Disagree	
11.	Agree	Don't Know	Disagree	
12.	Agree	Don't Know	Disagree	
13.	Agree	Don't Know	Disagree	
14.	Disagree	Don't Know	Agree	
15.	Agree	Don't Know	Disagree	
16.	Agree	Don't Know	Disagree	
17.	Agree	Don't Know	Disagree	
18.	Agree	Don't Know	Disagree	
19.	Agree	Don't Know	Disagree	
20.	Agree	Don't Know	Disagree	
21.	Agree	Don't Know	Disagree	
22.	Disagree	Don't Know	Agree	
23.	Disagree	Don't Know	Agree	
24.	Disagree	Don't Know	Agree	
25.	Disagree	Don't Know	Agree	

## STUDENT SURVEY

Form 2

Read the following survey statements aloud to your class.

1. A child with a disability should only watch games played by other children?

Yes Don't Know No

2. A child who is blind like Renaldo, uses his fingers to read.

Yes Don't Know no

3. The disabled child is to blame if he/she has no friends.

yes don't know no

4. A child who is hearing impaired like Mandy is also dumb.

yes don't know no

5. A child with a disability should always be in a special class just for children with disabilities.

yes don't know no

6. A child with a mental disability like Ellen Jane, will never grow up to be responsible enough to have a good job.

yes don't know no

7. A child with a disability would not be as good a friend as a child without a disability.

yes don't know no

8. A child who has an emotional impairment like Jimmy has trouble dealing with his/her feelings.

yes don't know no

9. A child with cerebral palsy like Mark has trouble controlling his/her movements.

no                      don't know                      yes

10. A child with a disability is unable to do well in school.

yes                      don't know                      no

11. A child who is blind like Renaldo will bump into things if he walks around without someone to help him.

yes                      don't know                      no

12. At recess we should play games that a child with a disability can take part in.

yes                      don't know                      no

13. A child who has a hearing impairment like Mandy is unable to communicate with those who hear.

yes                      don't know                      no

14. A child with a mental disability like Ellen Jane would be scary to meet for the first time.

yes                      don't know                      no

15. Disabled children should take part only in activities made especially for them.

yes                      don't know                      no

16. A child who is emotionally impaired like Jimmy is a bad person.

yes                      don't know                      no

17. A child with a learning disability like Jennifer is stupid.

yes                      don't know                      no

18. A child with a disability will slow the other children in the class down.

yes                      don't know                      no

19. A child with cerebral palsy like Mark can not have as much fun as a child without a disability.

yes                      don't know                      no

20. A child with a disability won't have a good job when he/she grows up.

yes                      don't know                      no

21. Disabled children should be included in all activities at school.

no                      don't know                      yes

22. It would be fun to play with a child who has a disability.

no                      don't know                      yes

23. A child with a disability needs to feel good about him/herself.

no                      don't know                      yes

24. A child with a learning disability like Jennifer is still able to learn a lot.

no                      don't know                      yes

25. I have thought about what it would be like to have a disability.

no                      don't know                      yes

## STUDENT ANSWER SHEET

School No. \_\_\_\_\_ Teacher No. \_\_\_\_\_  
Stu. No. \_\_\_\_\_ Form 2 Date \_\_\_\_\_

1.	yes	don't know	no
2.	yes	don't know	no
3.	yes	don't know	no
4.	yes	don't know	no
5.	yes	don't know	no
6.	yes	don't know	no
7.	yes	don't know	no
8.	no	don't know	yes
9.	no	don't know	yes
10.	yes	don't know	no
11.	yes	don't know	no
12.	yes	don't know	no
13.	yes	don't know	no
14.	yes	don't know	no
15.	yes	don't know	no
16.	yes	don't know	no
17.	yes	don't know	no
18.	yes	don't know	no
19.	yes	don't know	no
20.	yes	don't know	no
21.	no	don't know	yes
22.	no	don't know	yes
23.	no	don't know	yes



24.       no       don't know    yes

25.       no       don't know    yes

F I N A L  
S T U D E N T   E V A L U A T I O N   F O R M

This form is to be filled in after the completion of the second set of survey questions, one day after the completion of the program.

1. Before the program started, were you looking forward to seeing it. Why or why not?

2. Have you thought about what it would be like to be disabled? Tell me about it.

3. What did you like about the program?

4. What didn't you like about the program?

5. What did you learn from the guest speaker?

6. Do you have any questions that were not answered? If so, what are they?

7. Is there anything else that you would like to tell us? (Please use the back of this page if you need more room)





20. A child with a disability will not get a good job when he/she grows up.

          true                  don't know                  false

21. Disabled children should be included in all things at school.

          true                  don't know                  false

22. Playing with a child with a disability would be fun.

          true                  don't know                  false

23. A child with a disability needs to have good feelings about him/herself.

          true                  don't know                  false

24. A child with a learning disability can learn many things.

          true                  don't know                  false

25. I have thought about what it would be like to have a disability.

          true                  don't know                  false

STUDENT ANSWER SHEET  
Form 3

School No. \_\_\_\_\_ Teacher No. \_\_\_\_\_ Date \_\_\_\_\_

- |          |            |       |
|----------|------------|-------|
| 1. true  | don't know | false |
| 2. true  | don't know | false |
| 3. true  | don't know | false |
| 4. true  | don't know | false |
| 5. true  | don't know | false |
| 6. true  | don't know | false |
| 7. true  | don't know | false |
| 8. true  | don't know | false |
| 9. true  | don't know | false |
| 10. true | don't know | false |
| 11. true | don't know | false |
| 12. true | don't know | false |
| 13. true | don't know | false |
| 14. true | don't know | false |
| 15. true | don't know | false |
| 16. true | don't know | false |
| 17. true | don't know | false |
| 18. true | don't know | false |
| 19. true | don't know | false |
| 20. true | don't know | false |
| 21. true | don't know | false |
| 22. true | don't know | false |
| 23. true | don't know | false |

24. true      don't know      false

25. true      don't know      false