

INTEGRATION OF CHILDREN  
WITH HANDICAPS  
INTO THE MAINSTREAM

THE INTEGRATION OF CHILDREN WITH  
HANDICAPPING CONDITIONS INTO THE MAINSTREAM  
OF THE ELEMENTARY SCHOOL SYSTEM

by

PHILIP J. DIFRANCESCO

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AUTHOR: Philip J. DiFrancesco

B.A. (McMaster University)

B.A. Honours (McMaster University)

SUPERVISORS: Dr. L. Brooks

Dr. S. Najm

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## ABSTRACT

This project discusses a major issue in the educational system of the Province of Ontario in the 1980's. With the full implementation of Bill 82 in September of 1985, school boards across the province will be forced once again to determine how the needs of children with handicapping conditions ought best be met. Should they be mainstreamed with their chronological peers in neighbourhood schools or should they attend special schools where all ancillary services are provided? The purpose of this paper is to examine this integration/segregation debate.

The first two chapters provide the reader with a historical overview of the issue as well as with a description and critical analysis of the early efficacy studies that have been used as justification for the choice of one type of administrative arrangement over another. Chapter three outlines more contemporary arguments and research in support of the mainstreaming position. It also describes the philosophy, strategies and techniques of a local school board that has been mainstreaming children with handicapping conditions since the late 1960's. The final chapter outlines two evaluative techniques that can be used to assess the effectiveness of integration and segregation as educational models. Further, a proposal for future research is described in which both of these evaluative techniques would be employed.

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## CHAPTER I

### THE DEBATE

#### THE ISSUE:

In our society, the physically and mentally handicapped have often been forced to lead a peripheral existence, separated from the mainstream both by their limited ability to participate and by our limited ability to accept their differences (Hambleton & Ziegler, 1974). Recently, however, people with handicapping conditions have shown that, with appropriate societal interventions, (e.g. ramps, modified washrooms, computers and other new technologies) these limitations may have been exaggerated. Too often, the focus has been on our differences rather than on that which should serve to unite us, namely, our shared humanity.

This paper will focus on one area of societal segregation of the handicapped, that being, the educational segregation of children with severe handicaps. Brown et al., (1977) perhaps states the problem best; "severely handicapped students live with their nonhandicapped parents, play with their nonhandicapped siblings and their nonhandicapped friends, attend church with nonhandicapped worshippers and lie in the sand next to nonhandicapped bathers.....(but) are segregated from nonhandicapped citizens in what is presumably the major educational force in the life of any child - THE SCHOOL."

### HISTORICAL OVERVIEW:

The retardation literature is full of accounts of "dehumanizing" conditions that existed in institutions for the retarded. Vail (1967), narratively, and Blatt and Kaplan (1967), pictorially, have documented some of the subhuman treatment that people labeled "retarded" were forced to live under.

In 1969, Nirje first introduced the principle of normalization into the retardation literature. Wolfensberger (1972) describes Nirje's concept as "making available to the mentally retarded, patterns and conditions of everyday life which are as close as possible to the norms and patterns of the mainstream of society." The trend, today, to deinstitutionalization exemplifies the normalization principle in terms of social integration and community living, while mainstreaming gives evidence of this trend in terms of educational integration.

### MAINSTREAMING:

With the development of intelligence testing in the early 1900's, came the process of labeling children as profoundly, trainably or educably retarded. With labeling came the segregation of educational services that has characterized the first half of the century. Segregated schools and segregated classes were set up to meet the needs of these special students. Parent groups began to form into associations, and for the first time the retarded had an effective lobby to influence legislation that looked after the best interests of retarded children (Ingalls, 1978).

There is little doubt that much of the impetus for mainstreaming

sprung from the early efficacy studies of children labeled educably mentally retarded (ER) in special class segregated placements. Dunn(1968) outlined several reasons why special class placements were no longer necessary. Efficacy studies showed no greater achievement for ER children in special classes as compared to ER children in regular classes. Secondly, Dunn speculated that the stigma of labeling a child as mentally retarded would be diminished if children were not placed in segregated classes. He also cited the advances that had been made in individualizing curricula and pointed out that self-pacing material would allow ER children to progress at their own speed in regular classrooms. Finally, it was pointed out quite correctly, that segregated classrooms were racially segregated in that they contained a disproportionately high number of ethnic minority children. School administrators could not politically defend such practices. They were forced to reduce the number of children that were being identified as ER and to send many of those previously segregated back to regular class placements (Gottlieb, 1981).

At about the same time as these educational issues were being raised in the United States, several legal and judicial precedents were being set as well. Perhaps the two most important of these are PARC vs PENN 1971 and P L 94-142.

The former, the Pennsylvania Association for Retarded Citizens versus the Commonwealth of Pennsylvania, focused on the right to education. The PARC decision vindicated years of struggle against the social injustice of school exclusion. The decision stated in part...within



the context of the general educational policy, and among alternative programs of education and training that are required by statute, placement in a regular public school is preferable to placement in a special public school, and both are preferable to placement in any other type of program of education and training (in Burt, 1975). For the first time, then, a judgement was rendered in which integrated schooling was deemed preferable to segregated schooling for all children in spite of their handicaps.

With the passing of the Education for All Handicapped Children Act in 1975 (better known as Public Law 94-142), the federal government of the United States mandated that handicapped children be placed in the educational mainstream as fully as possible. It guaranteed that each handicapped child had the right to a free public education in the least restrictive environment and further guaranteed parental involvement through due process safeguards. Although the enacting of this legislation would seem to end the integration/segregation debate, the least restrictive environment clause (LRE) has proven, as will be discussed later, to be the spark that not only continued but also intensified the debate.

In Canada, many of the changes discussed were later in developing and were far less dramatic. The Education Amendment Act (more commonly called Bill 82) in the province of Ontario, was passed and made recommendations that are very similar to PL 94-142. This amendment has ensured access to publicly supported education for all Ontario school aged children regardless of their exceptionality. All children now have

a basic right to be enrolled in a school.

Although Bill 82 does not mandate the least restrictive environment concept, it does, nevertheless, give parents the right to appeal all placement decisions regarding their child. Bill 82 also insists that school boards assume responsibility for providing suitable programming for each child. This includes the provision of special education programmes and special education services.

#### SEGREGATION VERSUS INTEGRATION:

One might question why any debate should take place at all between segregationists and integrationists. After all, the law states that children in America be mainstreamed - or does it? Court cases and PL 94-142 include the term "least restrictive environment" (LRE) in lieu of mainstreaming, probably feeling it has more explicit meaning (Semmel and Heinmiller, 1977). But beyond a clear understanding that a regular class placement is preferred to any other placement the meaning of LRE is left to individual States to define. Further there seem to be as many definitions for the term "educational mainstream" as there are definers. One of the most widely cited definitions is that of Kaufman et al., (1975). Mainstreaming refers to the temporal, instructional and societal integration of eligible exceptional children with normal peers. It is based on an ongoing individually determined educational needs assessment requiring classification of responsibility for coordinated planning and programming by regular and special education administrative, instructional and support personnel. If we



accept this definition we see that mainstreaming entails three sections- peer integration, planning and programming and defined responsibility.

One might anticipate that school administrators in the United States would balk at the increased work load and extra cost that the implementation of the LRE integration imperative would entail, and indeed they did. By 1978, 70% of those children labeled severely handicapped, trainably or educably retarded were still receiving educational services in segregated schools with 88% of the administrators interviewed nationwide reporting that the facilities that these children were in, had been built between 1973 and 1978. This, despite the fact that PL-94-142 was made law in 1975. Although 10% of the administrators surveyed in 1978, indicated plans to close segregated facilities, 20% were still planning on building additional segregated facilities (Kenowitz et al., 1978).

School administrators might argue that segregated settings ensure that all necessary equipment and resources are located under one roof. Delivery of medical and additional ancillary services and staff is easier. Teaching methods and strategies can be individualized by specialists thus ensuring individual attention and success. Since all teachers are special education teachers, morale and cooperation are improved as teacher isolation is diminished. Finally, segregationists might argue that the quality of education can be maintained in regular schools without the added burden and responsibility of handicapped children.

Parents of children in segregated settings must surely have

applauded the legislation? Wyne (1978) reported that, on the contrary, many parents rejected opportunities to integrate their children. Some parents expressed fear of the possible negative effects on their children from the reactions of nonhandicapped children. Other parents were reluctant to give up the direct control that they often had of their private schools for the retarded. Still others viewed integration as "giving up" or "losing" the program they had worked so hard and sacrificed so much to develop.

Other problems overcome by educational segregation are: the elimination of architectural barriers in segregated settings; teasing, abuse and exploitation are more likely in integrated settings; social relationships among students of similar functioning levels are more easily developed and transportation costs are drastically reduced.

Advocates of the integrated approach would argue in favour of educational mainstreaming but, with this advocacy comes the problem of "least restrictive environment" (LRE). The debate over LRE has revolved around the narrow issue of a student's physical placement. (Kenowitz et al., 1978). Many school administrators in dealing only with the issue of regular school placement actually support arguments for segregation. If regular school placement results in relegation to basements or remote classrooms, separate entrances and exits, differencing arrival and departure hours, separate lunch hours or lunch rooms, separate playground areas or extensive taunting, it might be argued that regular schools do not represent a least restrictive environment for severely handicapped students. From this perspective,

a segregated facility in which students are not confined or ridiculed might be considered by some to be less restrictive (Hamre-Nietupski et al., 1984). However, if ridicule were to be the criterion by which placement decisions are made, the integrationist would argue that most children should stay at home, since most children are teased and made fun of during their stay at school.

The notion of LRE must embrace much more than placement. It must include planned interactions to maximize educational payoffs and more importantly these interventions must be proactive to ensure contact between students who are severely handicapped and their non-handicapped peers. Kenowitz et al., (1978) emphasize that LRE should involve not only placement in close physical proximity with nonhandicapped peers but also, ongoing, meaningful, positive interactions between severely handicapped and nonhandicapped students.

True mainstreaming then, has two components. First, it involves a continuum of placement from regular class placement being most desirable, to regular class with support help, to part time withdrawal to a resource room, to placement in a special class within a regular school with planned interactions with chronological peers. From an intergrationists perspective, the latter would be the least desirable. Second, it involves the individualization of the placement. The placement must be contingent upon sound educational planning with specific goals and objectives outlines. If both a continuum of placement and an individualization of placement are not present and indiscriminate placing of handicapped children ensues, then we don't

have mainstreaming at all, rather, we have "maindumping" (Coursen, 1981). It is unfortunate that the legislators chose the pessimistic, half empty term, "least restrictive," rather than the optimistic, half full term, "most effective", in writing Public Law 94-142. The use of a term like most effective might have shifted the debate to focus on a child's strengths rather than on his weaknesses.

The arguments for integrational mainstreaming abound in the literature. Early efficacy studies which compare academic performance in regular and special classes for the handicapped have been conducted over the past 50 years. These studies, as stated earlier, paved the way for mainstreaming. Five of these early studies show academic achievement superior in the regular classroom while five studies reported no significant differences between the groups (Gottlieb 1981).

Studies have been done which compare students in the mainstream who receive resource programming on a withdrawal basis with students in segregated classes. Walker (1972) reported that resource room students obtained significantly higher gain scores on vocabulary and word reading subtests of the Stanford Achievement Tests while Budoff and Gottlieb (1976) found no significant differences between groups in either reading or arithmetic achievement.

Other studies comparing decertified ER students who returned to regular classes and those who remained in special classes showed that special class students scored lower than regular class students in reading and math (Meyers, Macmillan and Yoshida, 1975).

A multivariate study, Project Prime (Kaufman et al., 1978) compared mainstreamed ER children (MER's) with special class ER children, and reported that although MER's were significantly below normal pupils they were equivalent to special class ER (SCER's) in achievement. Further, although MER's attentional behaviour during academic tasks was lower than normal peers in the classrooms; the MER's attentional behaviour while in the resource room was about equivalent to that of ER's in the special classes. Finally MER's interacted cognitively with teachers in class at a rate no higher than that of their normal peers, suggesting that the presence of ER's in the regular classroom does not result in a reduction of cognitive teacher-pupil interaction with normal children.

As we shall see in the next chapter, many of the foregoing studies are open to methodologic criticism, nevertheless, they have been used in support of the integration position (many studies used in support of the segregation position are open to the same criticism).

The position taken here is that it is better to err on the side of desegregation and encourage interaction between children of all functional levels since the advantages of longitudinal interaction with non-handicapped peers are essential to functioning in complex heterogeneous environments (Brown et al., 1977).

Some advantages to mainstreaming, that are not as yet widely documented but surely will be the subject of further study, are included below. Handicapped children can benefit socially and improve academically by association with regular peers who serve as role models

of behaviour and achievement. (Gottlieb et al., 1975) Jenkins and Mayhall, 1976; Synder, Appolloni and Cooke, 1977). Integration may lead also to an increased ability to deal with "real life" situations that may be faced later in life (Begab & Richardson 1975). Voeltz (1980) found that contact with severely handicapped students can influence non-handicapped students' attitudes in a positive direction. Of course, exposure alone does not ensure the development of positive appropriate interactions between people with handicaps and their nonhandicapped peers, but lack of exposure guarantees their absence (Brown et al., 1979).

By and large the principle argument in favour of mainstreaming is that integration benefits students and ultimately society more than segregation does. Students with handicapping conditions who are integrated into the mainstream may certainly encounter stereotyping and discrimination, but integration affords, at least, the opportunity for these to be mitigated and perhaps even to be eliminated.

The question asked most often in regard to mainstreaming is "does it work?". This, I submit is the wrong question. A recent review of the literature (Almond et al., 1979; Donder and Nietupski, 1981; Voeltz 1980, 1982) point clearly to the fact that a mutual benefit for severely handicapped students can accrue through close physical proximity combined with structured interactional opportunities (Hamre-Nietupski et al. 1984). In my opinion, the question that we should be asking is "If integration can work successfully for severely disabled students in some cities and in certain schools, why then can't it work in all cities and in all schools?". Chapter three of this

paper will provide the reader with specific reference to where integration is working successfully and will discuss the strategies that have been used to attain this success.

CONCLUSION:

Eventually the mainstreaming debate must shift from a scientific debate to a philosophical one. If mainstreaming is to work it cannot be due to legislative mandate but rather to a single belief that all children are entitled to appropriate "quality" education. Gifted children as well as developmentally delayed children have a right to have their individual needs met. It becomes a question of justice not charity.

The challenge to educators is to create improved educational opportunities for all children so that all might learn and all might grow together.

## CHAPTER II

### A CRITICAL ANALYSIS

#### INTRODUCTION:

The mainstreaming movement has its roots in social as well as legal issues. During the 1950's civil rights legislation in the United States provided that black children could not be segregated into schools that were "separate but equal" to those provided for white children. Subsequent judicial rulings also included mentally handicapped students in the "separate but equal" legislation. By the 1970's, the beneficial effects of self-contained classes and segregated schools were called into question by many educators, and, given a social climate that was receptive to the rights of the handicapped, it is not surprising that the federal government of the United States, would, in 1975, enact the Education for All Handicapped Children Act (PL 94-142). This Act guarantees each child, regardless of their handicap, the right to a free public education in the "least restrictive environment".

Much of the disenchantment with segregated educational placements culminated in the work of Dunn (1968). Although special educators had traditionally assumed that children labelled "mentally retarded" would have greater opportunities for success in segregated settings with intellectually comparable peers, this assumption had no empirical basis. In fact, of the ten early efficacy studies conducted between 1932 and 1965, five showed no significant achievement differences between



retarded children in special and regular classes. Moreover, the results of the other five studies indicated greater academic achievement among retarded children in the regular classes (Gottlieb 1976).

A parallel can be drawn between the desegregation of "all white" schools and the mainstreaming of handicapped children. Educators in the 1960's quickly discovered that racial desegregation and integration were not synonymous. Hoben (1980) points out that like desegregation, mainstreaming can also be accomplished by legal and administrative fiat but that this is not synonymous with integration. She states that integration is an ongoing process of interaction that cannot be mandated. Mainstreaming, as we shall see, only provides an opportunity for integration to take place; it does not guarantee that it will.

In this chapter an attempt will be made to examine the mainstreaming research and to critically analyze it in order to determine whether the quality of the research warrants the conclusions that have been made concerning the integration/segregation issue. It is my contention that much of the early research is open to severe methodologic criticism but, as I will point out, even if it were not, I believe that the type of research done has been the wrong research. Briefly, how do children previously excluded from the mainstream because they were unable to meet its demands, suddenly achieve in the mainstream without some significant changes occurring? It seems to me, that either the expectations made of these children or, as will be outlined in the next chapter, a complete modification of the mainstream itself must be undertaken so that all children regardless of their strengths

and weaknesses will be able to grow, discover and learn together.

THE NEED FOR EVIDENCE:

An increasing awareness of the abuses, deficits and basic inhumanity of institutions and other segregated programs isolated from public scrutiny no doubt stimulated the current movement to recognize the rights of all children to live in a home environment, attend a neighbourhood school, and participate in community programs and services (Voeltz 1982). This, combined with the political mandates discussed in the previous chapter, would seem to indicate that mainstreaming is a moral or legal phenomenon rather than an educational one. If this were so, one might argue that the cessation of segregation and of the loss of dignity that segregation brings, are an end in themselves, since a continuance of these practices would be morally or legally wrong. Any gathering of educational evidence would then appear to be unnecessary.

The flaw in this argument is obvious! Regardless of the impetus for the movement away from segregated classes and toward mainstreaming, the fact remains that educational mainstreaming in both Canada and the United States is in place and enshrined in law. As educators, concerned with optimizing the educational payoff for children, we must study integrative practices in detail to fine tune the process and ensure that it provides children with the maximum utility and the maximum enjoyment.

Early efficacy studies which attempted to resolve the segregation/integration debate by trying to prove that one administrative arrangement was superior to another were, I submit, unnecessary and misguided.

Irrespective of the evidence, certain practices have no place in education. Further, not all issues require scientific evidence. Should the suffragettes have asked sociologists, economists, or political scientists to decide if women should get the vote? Should Lincoln have consulted the scientific sages of his day to determine whether the slaves should be set free? For some things, one needs no evidence. However, when there are contending interests, as there are in the mainstreaming debate, it sometimes becomes necessary to gather evidence. For example, if a perceived possibility exists that educational resources for non-handicapped students will be decreased, the need to gather evidence to verify this is essential. The focus of the debate in this case shifts though, from the appropriateness or inappropriateness of integration to data gathering about its implementation.

Regardless of the need for evidence, mainstreaming is in place in the United States and with the passing of Bill 82 it will be in place in Ontario by September 1985. It is important now to examine the research not to prove mainstreaming's worth, but rather, to enable us to create the most effective and least restrictive educational environment for each child.

#### THE RESEARCH:

Although there is little doubt that the early efficacy studies were fraught with severe methodologic problems, they were, nevertheless, used as support for the mainstreaming movement. In this section an attempt will be made to highlight some of the difficulties associated

with educational research, as exemplified by these studies. Further, the four major reasons posited by Dunn (1968) as to why special classes were no longer necessary will be discussed. Since it was Dunn's paper that ignited the mainstreaming movement, it is interesting to see whether these initial assumptions underlying the benefits of regular education for children labelled "mentally retarded" were well founded. Next, a review of more current research will be undertaken and finally, an argument about general problems in the mainstream will be considered.

#### EFFICACY STUDIES:

These early studies attempted to determine the best administrative arrangement for educating children designated as mentally retarded. The studies took the form of comparing the academic achievement of students in segregated classes with students having the same I.Q. scores but enrolled in regular classes. Five of the studies show academic achievement superior in the regular classroom (Bennett, 1932; Cassidy and Stanton 1959; Elenbogen 1957; Mullen and Ithen, 1961; Pertsch, 1936) while five reported no significant differences between the groups (Ainsworth, 1959; Blott, 1958; Goldsteen et al., 1965; Thurstone, 1959; Wrightstone et al., 1959). Since none of the studies showed special classes to be superior to regular classes these efficacy studies provided the impetus for the mainstreaming movement.

Generally, one administrative arrangement was considered to be better than another if in comparing the mean achievement scores in the groups, children in one group received higher scores than children

in another group. These types of studies are subject to severe criticism which should have prevented them from being used as a justification for the dismantling of special classes. These studies, known as "between-groups design studies," assume homogeneity within a given group (e.g. a segregated class) but we know that this assumption is false. (Kirk, 1964). Not only do the capabilities of the children vary from one classroom to another, but things like teacher competency, curricular strategies, class size and instructional materials may also vary. These variables would influence the achievement score outcomes as well, unless, of course, the sample was very large in which case unbiased variance is not a problem statistically. Another global problem exhibited by the studies is that non-comparable groups resulted from subject selection bias, because students were not randomly assigned to special or regular placement. "Between-groups design studies" only allow one to say that a collection of factors may result in the superiority or inferiority of one group as compared to a collection of factors which affects another.

Kirk (1964) points out other reasons for caution with these early studies. Some of these continue, as we shall see, to affect the validity of the evaluations of current mainstreaming research. The meaning of the term "special class" varied from one study to another. As well, the type of curriculum components emphasized vary, to a greater or lesser degree, with stress placed on social, vocational or academic development in different settings. Guerin and Szatlocky (1974) point out that with major differences reported in terms of who was integrated,

the various instructional strategies employed and the amount of ancillary support available, program diversity became the rule rather than the exception in mainstreaming programs.

#### CURRENT RESEARCH:

On the basis of the lack of support in the efficacy studies for segregated classes and in a social climate in which the civil rights movement was gaining strength Dunn (1968) presented several reasons for the abolition of segregated classes. <sup>1</sup> Since children fared at least as well in regular classes as they did in segregated classes, he argued that special classes were no longer justifiable. <sup>2</sup> With children placed in regular classes he maintained that the stigma of being labelled "retarded" would be alleviated. Dunn's third reason, was that special classes were found to be racially segregated. <sup>3</sup> Finally, with the advances made in individualizing the curriculum, he reasoned that retarded children could now be accommodated in the regular classroom. Interestingly, much of the current research addresses many of these same issues. Despite the proliferation of articles and papers published under the rubric of mainstreaming, ambiguity and uncertainty continue to exist and it is still difficult to ascertain whether Dunn's initial assumptions are, in fact, correct.

#### ACADEMIC ACHIEVEMENT:

Most of the current mainstreaming literature is based on an attempt to demonstrate the superiority of one academic arrangement

over another in terms of academic achievement and/or social adjustment. We will first examine some of the academic achievement studies.

In order to control for the subject selection bias found in the efficacy studies, several studies were undertaken in which randomized trials were partially or completely used. In 1967, Carroll conducted a quasi-randomized trial in which 39 children labelled "mentally retarded" were assigned to segregated or partially integrated classes. The sample was drawn from five school districts in suburban Denver, Colorado. Similarity between groups was documented on 17 of 19 variables, however, two unspecified variables revealed statistically significant differences at the outset which were not adjusted for later in the analysis. As a pretest and again eight months later as a post test the standardized WRAT test was used. The test revealed a significant reading performance gain for children in the integrated setting. Although these results supported the author's hypotheses, they must be regarded with caution. Because the sample was only partially randomized, a possibility of assembly bias, and of contamination by parents and teachers also existed.

Walker (1972) matched children who were integrated using the resource room model (i.e. they were provided with extra academic assistance when withdrawn from their regular class) with children fully segregated in a special class placement. Although the children in the resource group obtained significantly higher gain scores on the vocabulary and word reading subtests of the Stanford Achievement Test, no significant results were obtained in arithmetic. These results must again be interpreted with caution, since the possibility of

subject selection bias exists whenever subjects are not randomly assigned.

Perhaps it is interesting here to note the following. Campbell and Stanley (1966) point out that in judging the merits of a study, the internal validity criterion is the most crucial since it determines whether or not the results are due to the remediation treatment. The best studies employ a true experimental design in which pupils are randomly assigned to two or more segregated, partially segregated or integrated groups. Since most studies are compelled to use existing classes, children in each group were often matched on mental and chronological ages and on achievement. Campbell and Stanley speak disparagingly of this technique. They recommend the use of multiple covariate analysis of covariance to adjust post test scores according to differences on pretest measures to establish equivalence. Both the Carroll study and the Walker study would fall victim to the threats of internal validity posited by Campbell and Stanley.

In 1976, Budoff and Gottlieb conducted a truly randomized trial of 31 children labelled "mentally retarded". These children were aged 8 to 14 years and were stratified as to whether or not they were bused to school. The sample was drawn from three inner-city schools and similarity was documented on several variables. Fourteen children attended segregated classes, while seventeen children were mainstreamed with additional support given to them by resource room personnel. There were no significant differences between groups in either reading or arithmetic achievement where several outcome measures,



including the Metropolitan Achievement Test, were used at pretest and on two post test occasions in a one year period. Although this study employed a multivariate analysis technique, these outcomes must also be viewed with caution. Because of the small sample size and risk of beta error, clinically important differences may have been missed.

In a more recent attempt to demonstrate the superiority of segregated classes over regular classes, B. Gottlieb (1982) conducted a descriptive study of twenty four children labelled "mentally retarded". She found that the number of reading errors made by these children increased significantly under evaluative conditions. Based on this, Gottlieb concluded that retarded children "do better" in non-threatening, segregated settings. Of course, similar results might also have been observed in a group of "normal" children as well. The best we can say is that achievement scores may be affected by stressful situations. This study does not prove, however, that segregated settings are necessarily less stressful.

Overall, the literature on achievement test scores of mainstreamed and segregated children reveals few differences (Gottlieb, J. 1981). The adequacy of criterion measures used in student achievement studies are always a concern to researchers and this problem is particularly acute in measuring the achievement of learners with handicapping conditions, because the format of the standardized test may present them with difficulties. Since they learn at a slower rate, the instruments used may be inadequate in detecting subtle shifts in development which may actually occur.

Many advocates of segregated placements would argue that it is little wonder that the efficacy of segregated placements has not been proven. The major goal of these settings, they maintain, is not academic achievement at all but rather, it is social adjustment.

#### SOCIAL ADJUSTMENT:

The relative lack of improvement in academic achievement or at least the lack of difference in achievement of segregated students as compared to children labelled "retarded" in regular classes, has been explained by the emphasis in segregated classes on goals in the affective domain. If this emphasis does in fact exist, then segregated settings should result in superior gains in affective areas. In this section an attempt will be made to review the literature as it pertains to this area, to analyse it critically and to draw some conclusions as to its efficacy.

The effectiveness of mainstreaming in the affective domain is most often determined by the assessment of social adjustment as inferred through measures of self-concept and peer group sociometric ratings.

#### SELF-CONCEPT:

With regard to self-concept research, Gottlieb (1981) reports that the studies seem to indicate that in comparing children labelled "retarded" in regular classes with children in segregated classes, the results appear to have been conflicting. Some studies reported no significant differences (Bacher, 1965; Budoff & Gottlieb 1976; Knight, 1967; Walker, 1972) while others reported significant differences

favouring segregated children (Hoeltke, 1967; Schurr and Brookover, 1968). Gottlieb further points out that upon comparing handicapped children who were partially mainstreamed (resource room model) with those completely segregated, the former were found to have significantly higher self-concept scores than did the segregated children. However, Gottlieb used as his reference the quasi-randomized study by Carroll (1967) which was discussed earlier in this chapter. Carroll reported that when using the Illinois Index of Self Derogation (IISD), non-mainstreamed retarded children were significantly more self-derogatory than partially integrated children. As noted previously, however, this study is open to methodologic criticism (assembly bias, contamination and cointervention by parents or unblinded teachers) and should not be used to draw firm conclusions.

Using the California Test of Personality (CTP), Blatt (1958) found no significant differences between special class and integrated students but Cassidy and Stanton (1959) using the same measure (CTP) found the social adjustment of special class children better than that of children labelled "retarded" who were in regular class. This highlights a major problem with self-concept research, namely, the problem of reliance on self-concept scales and tests of personality developed for use with, and standardized in, nonhandicapped populations when these are used with retarded subjects. Gardner (1966) points out, for example that on the CTP, realistic answers to questions (e.g. "Do most of your classmates think you are bright?") will be scored as an

error, or will lead to the conclusion that the child is down on himself and is suffering from a personality disorder.

Kern and Pfaeffle (1963) conducted an historical cohort study of 93 retarded children. 1/3 attended special schools, 1/3 regular class and 1/3 special class. Groups were matched for sex, age, mental age and I.Q., however, the regular class children were younger and definitely higher in I.Q. The results indicated that the best adjusted children were those in special schools, while the least well adjusted were children in regular classes. The CTP, with all of its faults, was used to garner these results. However, confounding variables such as parents' social status, home environment and physical appearance of the children were not considered. This, plus the fact that the instrument was administered by an unblinded clinician leading to possible expectation bias would preclude a whole-hearted acceptance of these results.

In Budoff's and Gottlieb's (1976) randomized trial discussed earlier in this chapter we find a study design that is much more appropriate in which potential bias is fairly well controlled for. There was a randomized study in which partially mainstreamed children had a more favourable attitude toward school, evidenced more internal control and had an improved self-concept as compared to their peers in special classes on two of six outcome measures. It is important to note, however, that the small selective sample size in this study, precludes generalizability. The authors of this study, themselves point out that this and other efforts to evaluate the success of mainstreaming

programs have, for the most part, only been one year studies. It is doubtful, they suggest, that a fair evaluation can be achieved in such a short period of time. Further, much of the work in this area took place in the 1970's; a time when school systems were just beginning to mainstream children.

Battle and Blowers (1982) in a cohort non-equivalent concurrent study seem, at first glance, to have conducted an impressive study. They used two standardized outcome measures to compare differences in improved self-concept over a two year period. Here we have a study which ran longer than one year and which is relatively current. Sixty-eight special class "retarded" children aged eight to twelve years were used with groups similar in age, grade, sex and socioeconomic status (other possible confounding variables were not considered). They reported that the special class children made significantly greater gains in self-esteem and perception of ability than did the "normal" children in the study. These results, however, are not surprising given that self-esteem in "normal" children is likely to remain constant. Comparisons between integrated and segregated children would have been much more appropriate in determining the effectiveness of mainstreaming.

Jones (1976) points out that much of the inconsistency in the research surrounding self-concept occurs because many of the major scales used in measuring self-concept are of unknown validity for handicapped populations. The language and vocabulary demands in themselves, introduce bias and error into the data. Further, he points out that

retarded children tend to give more socially desirable answers than other children, again adding possible error to the data. Finally, most studies do not employ a pre test and a post test design so that subtle changes in self-concept due to administrative design cannot readily be detected.

#### SOCIOMETRIC RATINGS:

If, as Dunn (1968) suggested, totally mainstreamed children were delabelled, one would expect that they would be socially accepted in the regular classroom since they would be better known and better understood. This assumption, however, was as Gottlieb (1981) reported, contrary to early studies in the area. Johnson and Kirk (1950), Heba (1956) and Baldwin (1958) all reported that mainstreamed children tended to be rejected sociometrically, significantly more frequently than would be anticipated by chance. Traditionally, one relies on sociometric methods in trying to determine the degree of acceptance of one child by another.

Lapp (1957) and Rucker (1967) conducted similar studies in which attempts were made to determine the social acceptability of junior high school students who had been labelled "mentally retarded" and reported similar findings. They both found the retarded children to be social "isolates", seldom accepted by their "normal" peers, and, using sociometric jargon, never "social stars". Although these results are not surprising, given the early studies in this area, Jones (1976) questioned the validity and stability of any results derived using

sociometric methods with atypical populations. It is difficult, he maintained, to sort out the relationship between an atypical label and possible maladaptive behaviours with regard to sociometric ratings.

Gottlieb (1975) in a randomized trial of 48 "normal" children reported statistically significant effects of the label "mentally retarded" regardless of its association with socially unacceptable behaviour by "retarded" children. Although this study is widely referenced as evidence of the effects of labelling in several other studies, it is interesting to note that Gottlieb himself cautions the readers that generalizability of results from such a small and highly selective study group is limited at best. He points out that these were third grade students in an affluent middle-class suburb of Massachusetts, and therefore contamination and cointervention via parents' attitudes and moral training were probable. Finally, Gottlieb points out that his study only dealt with the effects of labels and behaviour on the attitude of peers but stresses that there are other areas where labels may affect the labeled individual positively as well. Teachers and parents are cited as examples of the latter.

In a sociometric study conducted in more than 300 mainstreamed classrooms, children labelled "retarded" were found to be about one standard deviation (SD) below the sociometric mean of their non-retarded classmates (Gottlieb, Semmel and Veldman 1978). But, as Gottlieb (1981) points out, a disparity of one SD in the mean sociometric status score also indicates that almost seventeen labelled children in a hundred are at least as well accepted as their non-retarded peers.

Why? What is it about these 17 accepted children that makes them acceptable? How can we learn from these 17 in order to modify non-handicapped peoples' attitudes toward the handicapped? It seems to me that we are more interested in demonstrating that a problem exists than we are in providing a solution. This is especially true when one realizes that the sociometric position of a mainstreamed student may be improved through structuring classroom activities to enhance the students' behaviour and by providing them with prosocial training.

Ballard, Corman and Kaufman (1977) showed that when specific programs are designed and used as interventions to improve attitudes, they can result in a .5 SD improvement in social status. Aloia, Beaver and Pettus (1978) conducted a randomized trial of 304 non-retarded intermediate level children who were stratified according to grade and sex and then randomly assigned to one of three game-playing situations involving "retarded" children and their non-retarded peers. Results indicated that knowledge of competency of peers rather than the label "retarded" significantly influences the choice of playmates. The value of social training techniques to increase the competency of children is clinically significant in improving the social status of children labelled "retarded". These results are apt to be considered valid since groups were similar, outcome assessment was blind and inter-observer variation was controlled.

While sociometric procedures can be useful to educators, it must be realized that their results should be thoughtfully considered. Low sociometric ratings may be a function of race - remember that a



disproportionately high number of ethnic children have been labelled "retarded". They may be a function of appearance, maladaptive behaviour or even sex. Even if all of these have been controlled for and the sociometric results still indicate that a preference by non-retarded children for non-retarded playmates exists; or even if the results indicate a total rejection of the mainstreamed child, should we then abandon mainstreaming as futile? On the contrary, as Courson (1981) suggests, we should pursue it more vigorously as a way of combatting such prejudice!

#### CONCLUSION:

There can be little doubt that the mainstreaming studies described have been inconclusive in determining which type of administrative arrangement best meets the needs of all children. This may be due to the fact that instructional variables have not been held constant across comparisons. Placement arrangements per se, may not be the crucial variable in the issue. It may be necessary to modify existing educational practices and techniques. At the same time, while acknowledging that specific skills are indeed important, it is perhaps more important to understand that the central issue in mainstreaming is not a practice at all but rather a belief: a belief that all children have a right to appropriate "quality" education.

In the next chapter, we will describe the types of modifications to the mainstream that are necessary in order to change the belief into a reality, to create a school where labels are no longer needed

and where learning delays can be seen as reasons to re-teach rather than as failures.

We will look at a school system that, since 1968, has tried to change what most schools are like and whose written philosophy, in part, contains the following:

"All children can grow. It is the responsibility of all who instruct children to foster growth. No handicap, no matter how severe, no learning deficiency, no matter how persistent, should discourage our efforts. Every resource both human and material must be used to meet the needs of the child."  
(in Forest, 1983)

We will then examine a particular school in that system in order to see this philosophy in practice. Finally a study will be suggested that might provide evidence for the efficacy of this "new" mainstream for all children.

### CHAPTER III

#### MODIFYING THE MAINSTREAM

##### INTRODUCTION:

In their article, Integrating Handicapped Students into the Mainstream, Johnson and Johnson (1980) clearly point out the impact, the potential, and the risk involved in educational mainstreaming:

The Education for All Handicapped Children Act, may be the most important civil rights legislation in recent history. As schools comply with its provisions, regular classroom teachers are expected to integrate handicapped students into the mainstream of nonhandicapped peer friendship networks and classroom life. Placing handicapped students into the regular classroom is the beginning of an opportunity. But it carries the risk of making things worse as well as the possibility of making things better.

This chapter deals with the "risk of making things worse". Vandivier and Vandivier (1979) eloquently state the problem, "the danger used to lie in segregating exceptional children from normal society, it now centers around their experiencing failure and frustration in regular classes." There is little doubt that mainstreaming, as an educational objective, is highly desirable and, in fact, laudable. The problem is that given current educational practices, mainstreaming may promise more than it can deliver. This should not be surprising if one considers that the children who are now being integrated are the same children who, a relatively short time ago, were excluded from the mainstream. Their goals and their objectives

were said to be incompatible with the goals and objectives of the regular school system and they were subsequently segregated from it. The problem is that exceptional children still have needs, goals and objectives that may be different from those in the mainstream. The mere fact of integration does not alter this reality. Exceptional children still do not fit in. Something has to give! It is obvious that since the children do not fit the mainstream then the mainstream must change to fit the children.

In this chapter an attempt will be made to outline some of the shortcomings of the mainstream as they apply to educational integration specifically. Further, the philosophy of one school board that has endeavoured, since 1968, to alter its approach in order to correct the flaws of the mainstream, will be discussed. Finally, we will take a close look at one of the schools in that board in order to delineate, by specific example, the benefits that can accrue to all children as a result of a modified mainstream.

#### REALITIES OF THE MAINSTREAM:

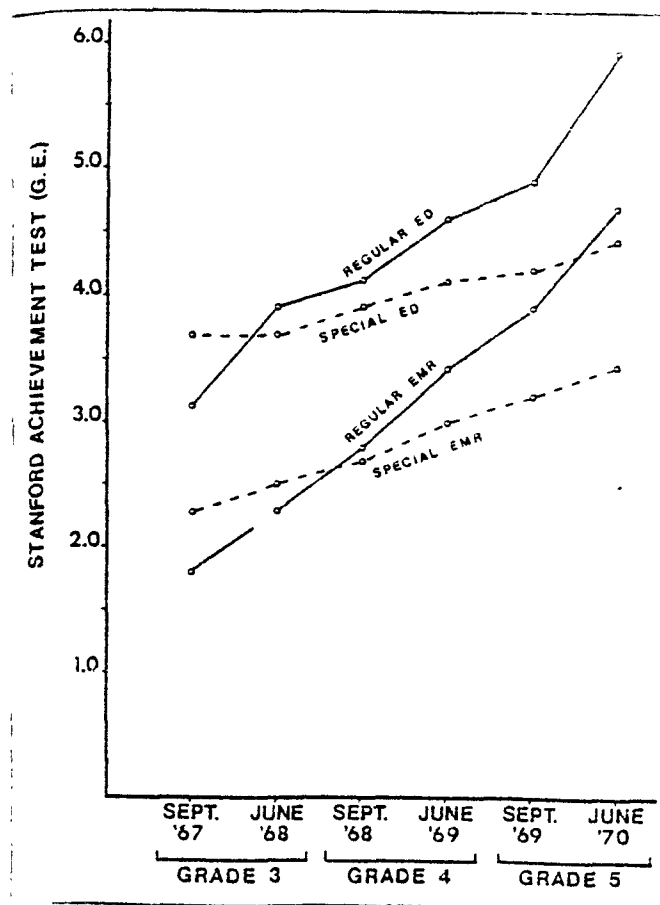
Upon entering the educational mainstream the exceptional child is faced with a multitude of problems not the least of which involve the number of children with whom he must interact. "Separate but equal" legislation created segregated settings with low teacher-pupil ratios, often only 8 or 9 to 1, while most mainstreamed classrooms have thirty to thirty-five children in them. Segregated settings were designed to accommodate multi-handicapped children. Ramps and special

facilities for teaching, learning, toileting and eating abounded. Segregated settings were safe settings in which children were dealt with by specialists and ancillary services were easily had. Children coming to the mainstream from this safe environment often found themselves not only facing large numbers but also curricular expectations that were far beyond their reach. Instead of programs designed to meet individual needs, budgetary realities and large numbers often led to teachers gearing instruction toward group or class performance which effectively excluded children at both ends of the spectrum from having their needs met. Individualization, the supposed panacea for mainstreaming problems, was only paid lip service. Average, above average and below average students were all taught the same curriculum only at different rates without regard to teaching and learning styles, differentiated content and evaluation procedures. All too often children coming from a segregated setting where multisensory, hands on inquiry approaches were the norm, found themselves in classrooms where paper and pencil tasks were the only reality. Children entering this "new" mainstream were often subjected to sophisticated testing procedures to determine their strengths and weaknesses, only to be then graded by comparison to some universal standard that they could not hope to meet. Children diagnosed as having audiological processing problems were given failing grades in listening skills; those diagnosed as being inco-ordinated in terms of fine and gross motor control received poor grades in penmanship and physical education; although a visual memory problem existed, report cards often contained comments

like "Johnny can't even copy from the board". Instead of reflecting the lofty ideals originally espoused, more often than not mainstreamed classrooms became merely a traditional classroom that housed a segregated, isolated ghetto within it. Teachers, already over-burdened, were fearful and felt ill-prepared to handle the implementation of yet another educational innovation. For all of these reasons and others, it is not surprising that many school boards have become increasingly more virulent in their stand against integrating special needs children into the mainstream. Why then does the push for educational mainstreaming continue? I would like to think that it is due to some romantic notion that educators truly believe that when it is done properly, the modified mainstream enables teachers to "nourish the capacity of all children to grow, to develop and to be joyful and full of life" (Nyquist, 1970). The pragmatist in me, however, is quick to point out another reason. Even in the absence of individualized instruction or other supports, there is some evidence that mainstreamed children benefit from heterogeneous placement (Myers 1976, Calhoun and Elliott 1977 and Leinhardt 1980). To support this position further, I would like to describe briefly the Calhoun/Elliott study. The purpose of the study was to determine the superiority of special class over regular class placement or vice versa. Children who were on a waiting list for full time special class placement, were randomly assigned to either special class or regular class placement on a full time basis and became part of a three year longitudinal study. Certified special education teachers alternated each semester between both classes on a

rotational basis and used identical individualized instruction, materials and equipment for both. One hundred black students comprised the sample and they were assessed twice a year for three years using the Stanford Achievement Test. At the initial pre-test, despite the random placement, the special class students had higher test results than the regular class students. At each testing period, the regular class students did better and by the end of the study the test results were far superior to those attained by the special class students (Fig. 3.1).

Figure 3.1 Mean achievement test scores (given as grade equivalents)



Source: Calhoun and Elliott, 1977.

This study is significant for many reasons. Unlike many of the studies discussed in previous chapters, this study is methodologically sound. The random assignment of students, all of whom met the criteria for special class placement, eliminates selection bias. Teacher effects were controlled through the use of certified special education specialists who rotated between both samples. The use of the same teaching techniques and materials controlled for procedure bias. Finally, the longitudinal aspect of the study addresses the typical criticism of short term gains. This study was not presented, however, simply to attest to the superiority of mainstreamed regular class placement over segregated special class placement, although it surely provides convincing evidence for it. This study was presented to indicate that even when all of the variables are controlled for and when each placement received identical considerations there may be some intangible quality present that seems to tip the balance in favour of mainstreaming.

The Leinhardt study (1980) although less controlled, also suggests that some factor is at work that increases the likelihood of success in the mainstream. The Leinhardt study compares three groups: a special class using individualized instruction; a mainstreamed class using a basal reading program; and a similar class on individualized instruction. Although the special class group had a much lower pupil teacher ratio and specialized teachers, there was no difference in reading achievement as compared to the basal reading group. The mainstreamed individualized instruction group, on the other hand, made



significantly higher gains than the special class group. In fact, even with far fewer students in the class, teacher reports indicated that the special class children had less reading instruction, completed only one half the assignments and read one quarter as much as the mainstreamed students.

Although low PTR's, individualized programs, and specialized teachers are important components in successful mainstreaming, the point made in earlier chapters and again in this section is that they may not be the crucial element for success. The intangible just mentioned is not, in my opinion, a process, practice or program but rather a philosophy that each child has a right to an appropriate "quality" education.

The Hamilton-Wentworth Roman Catholic School System has since 1968, integrated exceptional children into the mainstream. In the next section a brief discussion of their philosophy will be undertaken. Following this, highlights of a recently completed additudinal survey regarding integration will be presented.

#### MAINSTREAMING - A PHILOSOPHY AND A PRACTICE:

The Forward of the Student Services Handbook of the Hamilton Separate Board contains the following statement written by Mr. James Hansen who is the Board's Superintendent of Supervision and Operations.

"All children can grow. It is the responsibility of all who instruct children to foster growth. No handicap, no matter how severe, no learning deficit, no matter how persistent, should discourage our efforts. No special gift should be neglected. Every resource both human and material must be used to meet the needs of the child."

It is this statement that provides the central thesis of the Board's Mainstreaming philosophy. It is interesting to note that it was written more than sixteen years ago.

As part of a recent presentation to the Minister of Education for the Province of Ontario, the Hon. Betty Stephenson, the following abstract was included in an attempt to elucidate for the Minister, the Board's philosophy and practice:

"The exceptional child is first of all a child. He belongs. The child, regardless of special talent or personal deficit, is to serve the school community and in turn is to be served by it. Therefore, each child has the right to register at his home school and receive his education there along with his brothers, sisters and friends. Our principals, teachers, and students welcome each child with his unique strengths and weaknesses and provide within the school a warm, nurturing environment that gives full consideration to his or her individual needs. Provision of programs and services in our schools are governed by the principles of integration, normalization and personalization. Even those children who come to our schools with more severe problems than others and who need a program that is modified to suit their physical, intellectual and social needs are integrated. The modifications and individual adaptations of the program can take place in the child's home school. When we look at our fifty-three Elementary and seven High Schools, we note that all of them deal with children with various kinds and degrees of exceptionality.

The total thrust of Special Education in our schools centers on the classroom teacher. The classroom teacher is responsible for providing appropriate programming for every student in her class. The Board provides assistance to the classroom teacher to make her more effective in meeting the needs of all of the children through the services of the Special Education Resource Teacher. Many schools have additional resources such as Reading Improvement Teachers, Student Aides, High School Volunteers and Parent/Grandparent/ and Community Volunteers. The Student Services Department also provides assistance to the classroom teacher through diagnostic assessments, program recommendations, and consultation, as well as liaison with community services.

Less than 3/4 of 1% of our students are served in segregated,

self-contained programs. These programs are in regular schools and integration continues as an integral part of each child's day. The home school still maintains contact with the students while they are in these segregated programs by taking part in setting the goals for the students and by ensuring that the students are welcomed to their home school for as many activities as possible during the school year. While there are some segregated classes (8 at the elementary level and 2 in High School), the large majority of exceptional children are served within their neighbourhood schools. Presently, there are 4 autistic children integrated in their neighbourhood school, 3 of them at the elementary level and 1 at the secondary level. There are twenty-six integrated physically handicapped students, 4 of whom are at the high school level, and thirty multiply handicapped students within their neighbourhood schools. Six blind children are registered in our system, 3 are receiving their total educational program within their home school. The other 3 are multi-handicapped students. They are in the System Special Classes, but all of them are integrated for part of each day. An itinerant teacher of the blind worked with these students three or four times a week to develop tactile skills and Braille reading and writing skills. Twenty-three identified low vision students are enrolled in their neighbourhood schools. With program modifications and optical aids, these students are able to participate in a regular school program. The Special Education teacher acts as a resource to the classroom teacher for these low vision students.

We service students with severe hearing impairments ranging from mild to profound losses in our schools. We have 5 students in the severe to profound range and eleven in the moderate range. These children need amplification devices and regular monitoring by the Resource Teacher of the Hearing Impaired. There are also another fifty-one students who have losses ranging from unilateral high frequency loss only to mild conductually-aggravated losses.

More than half of our schools are currently providing educational programs for trainable retarded students within the framework of their regular program.

There are approximately thirty children throughout the system who require special programming in the area of augmentative communication (signs, picture boards, and Blissymbols). An individual programme is devised, based upon the child's needs. A Speech Pathologist assesses their current levels of functioning and collaborates with parents, teachers, and outside therapists regarding the choice of systems utilized. This therapist assists in constructing Blissboards and communication boards and

provides in-service to teachers and student aides."  
(Each Belongs, 1984)

Table 3.1 Prevalence of Exceptional Pupils with Significant  
Handicaps served in the Hamilton-Wentworth Roman Catholic  
School Board.

Exceptionality	Prevalence	
	Elementary	Secondary
Autistic	3	1
Hearing Impaired		
Mild	41	10
Moderate	7	4
Severe	4	1
Visually Impaired		
Low Vision	13	10
Blind	3	3
Orthopaedic	22	4
Multihandicapped	25	5
Trainable Retarded	66	12

Source: Each Belongs, Hamilton-Wentworth Roman  
Catholic Separate School Board, 1984.

In order to demonstrate that the philosophy and practices described above are more than the administrations' perception of how things ought to be in the Hamilton Separate Schools, the next section has been included.

A cross section of the education community were asked to submit their response to the statement "How I feel about integration". There were more than one hundred submissions, none of them negative,

from parents and children, principals and teachers, priests and community workers and student aides and secretaries. A representative sample of these submissions were then published in The Board's document Each Belongs (Hamilton-Wentworth Roman Catholic Separate School Board, 1984). In the interest of brevity, only ten of these responses are present here.

I feel fortunate to be the principal of St. Michael's School. My position has afforded me the opportunity to put into practice the right of every child to interact with his/her peers. At present St. Michael's School integrates a number of children with a variety of exceptionalities. Blind, Down's Syndrome and Cerebral Palsy children are an integral part of our school community because it has been our practice to integrate these children with their peers in regular classrooms. The success of this experience has been due to the splendid support I have received from the classroom teachers, the parents of our school community, and the non-handicapped children in our school.

Come and see a blind child with cerebral palsy do Environmental Studies with the regular grade four class.

Come and see our intermediate students help a wheelchair bound child realize his wish to jump and run.

Come and see a child with Down's Syndrome who has increased his speaking vocabulary one hundred percent.

Come and hear a child with multiple handicaps, blindness, cerebral palsy, and according to experts, profoundly retarded, give us appropriate responses.

Only after you have experienced these children will you understand my personal enthusiasm toward integration. Because of integration, my school is a better place in which children and adults can interact with dignity and mutual respect.

Anthony Tigani,  
Principal  
ST. MICHAEL'S SCHOOL

In September, 1983 we opened a Systems Special Class for developmentally delayed pupils, the first in our secondary schools.

The students are integrated for at least half of the day. The experience has been rewarding not only for the students in the class but for the entire student body. The staff and students have voluntarily offered their spare time to assist the teacher and the aide in a variety of ways.

We designed the students' programs to provide them with the greatest possible opportunity to develop their abilities and interests. The needs of each student were carefully considered in the planning of the individual program within the high school setting. This may be their last chance at a formal educational experience, so we emphasize the skills and attitudes that will be necessary for these students when they leave our school. It has been a joy to see the students meet with success and to see them enjoy school.

Miss W. Scherloski,  
Principal  
Cathedral Girls' High School.

Mr. J. Daly, Principal  
Cathedral Boys' High School.

I don't believe in calling them handicapped children and us normal. Everyone, in their own way, is somehow handicapped. Not one of us is perfect. So if you are going to call us normal you should call them normal as well.

Tisha, Grade 9  
St. Jean de Brebeuf High School.

The question in education today is not one of justifying the integration of exceptional students into the regular school system, but rather, how can one possibly justify continuing to segregate these students, when doing so denies them the basic right of all Canadians to have as full and normal a life as possible. Children who are handicapped, blind, deaf, retarded, learning disabled, etc., must "live out their lives" like the rest of us. They are part of our families, our churches, our communities, our schools, our society, and they have a great deal to contribute. As a special education teacher and the parent of a nineteen year old, severely hearing impaired young man who was integrated into his neighbourhood school, I have seen first hand how well school-age children can, and do accept handicapped

children willingly into their social groups. Adults today, for the most part, have grown up in a society which segregated handicapped persons. Our attitudes therefore, tend to emphasize the handicap and deficiencies caused by it, rather than accepting the handicap and focusing on the strengths and uniqueness of the person. It would be naive to suggest that the task of mainstreaming handicapped students is an easy one to accomplish. It can and must be achieved with the cooperation, communication, hard work and dedication of government, church, school and home. The effort will certainly be worthwhile when today's children grow to adulthood and form a society where all persons are quite naturally accepted and valued. If we succeed today, this future society will be one where segregation will not even be considered as an alternative, but rather, handicapped and non-handicapped living, working and playing together will be the social norm.

Mrs. R. Stevens,  
Special Education Teacher.

In my six years at Blessed Kateri Tekakwitha I have learned that mentally and physically disabled children are the most loving, giving and beautiful people that God has ever made. They have taught me a great deal about dealing with the handicapped. I am grateful for this very important lesson from our very "special" people.

Dianne Dunn, Secretary  
Blessed Kateri Tekakwitha School.

I am privileged to know students with general learning disabilities (TMR) who are integrated into the schools of St. Francis Xavier parish. Through their friendship I have become gradually more aware of their ability to worship, learn, relate, give and receive love, and generally to contribute positively to the school community. While much is still to be learned from sustained research and evaluation, the initial results are most gratifying. The vision and courage of the Ministry of Education in undertaking this direction is commendable, and worthy of encouragement and support. I am fortunate to be associated with a Separate School Board that has so enthusiastically espoused the guidelines of the Ministry of Education, and an Administration that has shown provincial leadership in their implementation.

Rev. H.E. Roach,  
Pastor, St. Francis Xavier  
Parish.

Integration in this case means having physically and mentally disabled in school with so called "normal children". Before, these disabled children were hidden from the world and protected from reality.

God created his children so that they each can learn and grow in Him. How can these children learn if they are closed off from people. We are all humans, we all have the right to live and learn and grow. I feel the Catholic people who say that the handicapped should not be in school are hypocrites. The parents feel this way because they have never been exposed to children who couldn't walk, talk and think for themselves. They don't know how much these children just want to be accepted as human beings, as people, as children. If we would only try!

Liz Gosse  
Grade 8  
Blessed Kateri Tekakwitha  
School.

The Hamilton-Wentworth Roman Catholic Separate School special education programs provide for their students educational opportunities that embrace a principle of individuality and dignity for a high quality of education.

Further, we have witnessed the improvement of positive self-image and self-esteem in our two residents who attend these programs. The opportunity for the handicapped student to experience a typical teenage life style, to wear the same school uniform, to have friends, has been an enriching experience that cannot be measured.

The practicality of the individual student's program objectives are sensible and realistic steps in preparing the students with basic life skills that are meaningful and specific.

The programs also carry expectations for socially acceptable behaviour and appearance from the handicapped student. The outcome of this diminishes the differences between a handicapped and non-handicapped student.

In summary, the programs have proven suitable but, more importantly, the entire presence of handicapped students within "a normal" school environment is an immeasurable, valuable experience for all concerned.

We are pleased that our residents are part of this educational system. Personally speaking, I'm proud of the commitment and the philosophical approach that this school board has implemented into its programs.

Donna Marcaccio,  
Program Manager-Rygiel Home  
Member of Special Education  
Advisory Committee - Hamilton-  
Wentworth Roman Catholic  
Separate School Board.



In our school we have found that the exceptional children become very excited and happy because they are able to join in group activity in a classroom surrounding. In some cases they are unable to participate to the fullest, but with some extra help these children can complete their work and have a sense of accomplishment. We find that our work is very rewarding. We see this when a young child learns to go to the store to purchase a small item on his own. When special students take that big step out in the world, we will know that we were a part of it.

Working with special needs children has made us grow. We have grown to accept them, and feel comfortable working with them. With a bit of guidance and a lot of love and hard work there will be a place for each and everyone of these children in our society.

Judy Mete  
Ivy Torrie  
Nancy Healey  
Student Aides,  
St. Agnes School.

I have a son that attended Eastview School for the Mentally Retarded a number of years and made little progress in behaviour and also making faces like the other children in that school. He used to play with little kids smaller than him and also talk like a little child. We were always asking if there was a school for slow children like Carlo but always our answer was no until finally our dream came through. Now Carlo is at Blessed Kateri Tekakwitha School. He mixes with Grade 8 students, plays, works, talks a lot better, makes sentences and can also read words and some sentences. He is no longer a boy now he is like a young man and also acts like one. At Kateri School Carlo achieved a big goal in his life. It's too bad this class wasn't here sooner to help these children. Thank you.

Ada Fortino  
Parent.

The foregoing provides, I think, a fairly clear picture of the practices and philosophy of the Separate School Board. In an attempt to provide a detailed description of this practice, we will, in the next section, examine the work being done at Blessed Kateri Tekakwitha School. Kateri is one of the schools in the Separate

System. It provides us with an example of a continuum of integration services since they not only integrate children with their peers in regular classes but also house a system special class (T.R.). The use of the Kateri Model also allows us to examine some of the newer research and techniques in the mainstreaming movement. Before doing this, however, and in an attempt to personalize the process, brief descriptions of several children presently being integrated in Hamilton schools will now be provided. These descriptions are contained, as with many others, in the Board's booklet, Each Belongs. (Hamilton Separate School Board, 1984).

#### THE CHILDREN

Meet Adam: When a group of parents approach Adam's Mom and thank her for allowing Adam to attend the regular program because his presence has been good for their children, you know for sure that Adam is having positive experiences in school. Adam is 6. He has spent 2 years at St. Patrick's School and he is in Grade One. Adam is now spontaneously signing 20 or more words and is starting to put two or three signs together to make phrases and sentences. His student aide took the signing course offered by our board and is very proficient in helping Adam to learn new signs. The entire class has enjoyed the additional activity of learning and using signs - for such things as songs and snacks. The children include Adam, physically drawing him into activities if he's not aware of a change of pace. When asked about Adam, one little boy said "he's just like us, only he doesn't speak".

Meet Sabrina: Sabrina is a six year old, severely developmentally delayed child with autistic tendencies. She is a truly beautiful little girl. Her beauty is breath-taking. This is Sabrina's second year at St. Vincent de Paul. She is in Grade 1. Sabrina's gains are small but so evident to all involved with her. She is learning from watching her

peers. This year she is able to join her peers for story time, music time and snack time and sits without adult intervention. The amount of inappropriate vocalization has decreased dramatically. She is starting to follow very simple directions. The staff, which includes the kindergarten teacher, the student aide and special education resource teacher, are working together to provide the program the Sabrina needs in a regular school environment. They have become better instructors by being able to share in the program planning and learn more about the stages of child growth and development - Sabrina has had a great learning experience, so has the staff.

Meet Josie: Josie is a ten year old Down's Syndrome girl with an infectious laugh that charms all adults who come in contact with her. Josie has been in a regular class programme since Early Childhood. She is presently in the Junior division at St. Teresa of Avila School. Josie is reading and doing basic addition and subtraction. She is now working more independently on given tasks. Included in her programme are life skills such as money skills and telephone skills. The Student Aide facilitates trips in the neighbourhood for language development and for safety in daily living.

Meet Pietro: Pietro is a lovable 10 year old who has been in the System Special Class at St. Michael School for the past three years. Pietro is developmentally delayed, has cerebral palsy and is blind. Pietro has language but his expressive language for the most part is a form of echolalia. Pietro can recite the entire Mass or sing an opera verbatim. The greatest joy for those working with Pietro this past year is the breakthrough in expressive communication skills. Pietro has started to give appropriate oral responses to very simple requests. Initially Pietro was tactily defensive and screamed when people touched him. Today he is a cuddly, affectionate boy who enjoys being with adults and children. Pietro crawls around determined to find his favourite toys and records and he is working hard to pull himself up into a standing position and to get himself into his own wheelchair. Although, toileting remains a concern, the school and Cheoke Hospital Child and Family Centre have worked together to develop appropriate toilet training programs but efforts have been unsuccessful to date. Pietro is much more aware of his environment and is starting to respond with more appropriate associative speech and actions.

Meet Joseph: Joseph is an attractive, friendly twelve year old boy. When Joseph was six years old, it was felt that a school for the Trainable Retarded would be most appropriate. At that time, there were also serious behaviour concerns and inappropriate social interaction. Joey would avoid all tasks by saying "I can't". However, through insistence that he try an activity, coupled with praise, Joey showed significant gains. A year and a half later Joseph was reintegrated into his home school on a part-time basis. By September of 1980 Joseph was attending St. Michael's School full-time in the primary division. Joseph is now in the Intermediate division with some modification in Language Arts and Mathematics. Today we have a very self-confident young man who has developed through opportunities to interact with his peers.

Meet Tony: Tony is a 16 year old boy in a System Special Class at Cathedral Girls and Cathedral Boys High Schools. Tony had attended a segregated school for trainable retarded children since he was five years old. His parents decided to transfer him to the Separate School Board in September of 1983 when the Order In Council came into effect. Tony presented himself in September as a very shy, withdrawn young man. He is now one of the most popular students in the High School. Many regular students have volunteered to work with Tony on his individual program and he has made great academic progress this year but the most evident growth is in his language and social skills and gross motor development. Tony participated in the regular High School Physical Education Weight Lifting Program and his strength and endurance have increased. He also took part in a Grade 9 Industrial Arts class and Tony's participation in music has added a new dimension to his life as well as to the teachers and the rest of the class. His enthusiasm has permeated the whole class. He can't read the words of the songs but he surprised everyone including himself because he has memorized them. A whole new world has opened up to Tony and all of us who are privileged to work with him. Tony leaves high school walks down two blocks to King St. and boards a city bus to go home just like any other High School student.

#### THE KATERI MODEL:

Blessed Kateri Tekakwitha school has approximately 530 students who range in age from four to thirteen. I am the principal of the

school and have been for the past five years. As a staff; principal and caretaker, secretary and teacher, student aide and cleaning lady, we believe that each child entrusted to us is special and that each has a right to attend our school. We believe that our job is to help children grow and develop to their maximum potential and at the same time to ensure that no one does anything to injure their dignity. We believe that children learn best when they feel good about themselves, are challenged, successful and rewarded. We believe that children should remain with their peers in their neighbourhood school. We believe that all children are different and all learn at different rates - some need extra practice - some need extended activities. We also believe that much of this is not new. Schools everywhere have similar beliefs. Unfortunately, some actions speak so loudly that no child can hear what their school says it believes.

In order that this fate does not befall us, we have adopted the diagnostic prescriptive model (described below). In five years not one child has been accelerated or retained; each has progressed from year to year with his peers. The classroom teacher has prime responsibility for all of the children assigned to him. It is the classroom teacher that must meet the needs of each of the children in the class. Classroom teachers are special people. Next to the children they are the most important people in the school. Everyone in the building functions in support of the classroom teachers as they endeavour to individualize programs to meet the challenges presented by each child. Classroom teachers at Kateri are not asked to teach classes or grades, content or

skills, mathematics or language, but rather they are asked to use content or skills, mathematics or language to teach children. It is their role to find out where the child is, how he best learns, and to take him as far as they can in the time that they are together.

Impossible you say! Teachers are only human you say! You expect too much! This might be true if teachers were asked to do all of this on their own. But they are not. At Kateri the teachers are part of a team. In the first instance the teacher is part of a divisional team that meets at least once a week to plan together. The first item on each divisional agenda is children and how to meet their needs. If a teacher has a concern the team tries to help him with it. If this fails, the teacher can take the problem to the Diagnostic Prescriptive Team (D.P.T.). This is a team of people who meet each week and whose prime purpose is to help the classroom teacher meet the needs of the children in his charge. The D.P.T. is chaired by the Special Education Resource Teacher (SERT), and has four other permanent members. These include a Reading Improvement Teacher (RIT) who serves as secretary and keeps formal minutes, the principal, vice-principal and the system special class teacher (appendix 1). Each term, this team is complemented by the addition of three classroom teachers, one from each divisional team. The school nurse and other education and health care professionals may also be invited to attend these meetings. The classroom teacher initiates the meeting by filling out an in-school referral form (appendix 2). The student

is placed on the agenda and the referring teacher then presents the case. Those in attendance diagnose the problem and suggest a prescription which might range from some "homemade" materials to the use of a volunteer to assist in the classroom. If the D.P.T. team is unsure of the diagnosis then the problem may be sent to the identification placement and review committee (I.P.R.C.) at the school level (appendices 3-9). From here a request can be made to central office to have the child formally tested (appendix 10). The results of this testing and recommendations from central office personnel are then taken back to the I.P.R.C. for implementation. The I.P.R.C. may declare the child an exceptional pupil and recommend some further input to aide the teacher.

We realize that the people who know the child best are the parents and we realize the importance of their participation in the process. To this end, they are encouraged to participate in the problem solving approach, described above, from the very beginning. Each teacher contacts each parent by phone at least once a month and parents are invited to all I.P.R.C. meetings and ~~in some cases~~ to D.P.T. meetings as well.

Parents and other adults complement our teaching staff by serving in our adult volunteer program. This program, co-ordinated by our S.E.R.T. is used to aide the teacher in implementing the prescriptions laid out. Included in our volunteer program are

Grade 13 students and elderly people, whom we call Grandmas and Grandpas, who come to us from a local home for the aged. The success of this program rests with the volunteers, all feeling that they are part of the problem solving process. Our motto is, if you are not a part of the solution you are part of the problem. None of the volunteers help teachers by running off dittos or making coffee, they help teachers by working with children. This program is very organized with specific tasks lined up ahead of time and, often accompanied by a kit of materials. When the volunteer is through for the day, he is asked to complete an observation form (appendix 11). They truly are part of the solution! A volunteer program is only as good as the number of volunteers that remain with the program throughout the year. We invited over 100 to our volunteer tea at the end of the year (appendices 12 and 13).

#### INTEGRATION - NO BIG DEAL:

When you start with the premise that all kids belong in their neighbourhood school with their chronological peers and with teachers who are more concerned with teaching children than, with covering their course of study; when teachers are more concerned about where kids are going than with how they got into "my" class or with why they shouldn't be there in the first place; when parents are seen to be part of the team rather than as the enemy; when everyone reacts to the swear words of a mute boy as evidence that he can speak rather than as an occasion for punishment; and when teacher burn out is jokingly



referred to as teacher rust out; then, you can see why integration is no big deal.

It really is no big deal to take a boy like Scotty, who came from a developmental pre-school and a segregated school for the retarded, into a regular Grade 2 class at seven years of age simply because his four year old sister started school at Kateri and Scott, who drooled, moaned, walked ape-like and exhibited all sorts of maladaptive behaviour, wanted to go to school with her. It's no big deal that Larry who is now in Grade 8 but working at a Grade 2/3 level came to us and his first goals were to tie his shoes and zip up his fly. It's no big deal that Michael, who was assessed by another board as being trainable retarded, is now in Grade 9 after his parents refused to send him to a segregated school.

Scott, Larry and Michael and many other children have had their needs met in a regular classes by home room teachers who, in consultation with the Diagnostic and Prescriptive Team, have set co-operative goals; goals that relate to the child's needs at the moment and are therefore everchanging. Some may call this nurturing and not education but we make no apology for nurturing. If life skills are nurturing then we nurture. If toileting skills are nurturing, then we nurture. But we also teach. Each exceptional child has an individual pupil/educational plan tailor made especially for him. No child at either end of the spectrum, gifted or remedial, is left to float aimlessly through our school.

I make no apology as well for that which some might call "boastful" or "overly sentimental," but rather appeal especially to educators to forget about teaching as they were taught; to forget about worrying about what won't work; to forget about negatives and to read the research. Read the literature, especially some of the most recent literature, that states quite emphatically that tracking (the theory that instruction can be delivered more efficiently to groups who have similar abilities and achievement levels), which is just a special form of segregation, is harmful to the academic achievement of low and average achievers and makes no difference for high achievers (Esposito, 1973). Read the literature that accounts for the poor performance of low achievers in homogeneous classes because of low expectations (Beckerman & Good 1981), the creation of behaviour problems (Evertson 1982) and the slow instructional pace in these classes (Dunkin 1978). The Calhoun and Elliott (1977) study should surely put to rest the argument about special teachers being needed to teach exceptional children since the same teachers were alternated in both arrangements and children obtained significantly better results in mainstreamed classes.

As stated earlier, no one at Kateri believes that the simple fact of mainstreaming alone will produce positive results automatically. On the contrary, we believe that several modifications must be made to the mainstream in order to accommodate children with special needs in regular classes. Social skills training, consulting models and individualized instruction play an important part in our program.

SOCIAL SKILLS TRAINING:

Many of the students who are newly mainstreamed have great difficulties in the area of social skills and social skill processing (Gottlieb and Leyser, 1981). Because of this, we use many strategies to try to help them to attain the skills necessary to feel part of the total school community. Included in these approaches are coaching, modeling, and direct reinforcement.

Coaching provides students with direct instruction as to how to interact with their peers. The teacher or S.E.R.T. works one to one with a student and gives advice on how to handle specific situations that may develop. Often they will play-act the event and then the child will be observed while in direct contact with his peers. Feedback will be given and the process will then start again. For research studies in this area see Oden and Asher (1977) or Gresham and Nagle (1980).

Modeling, like coaching, assumes that children lack certain social skills that can be ameliorated by the use of guided example. Although much of the research uses models from film or videotape (see Gresham and Nagle, 1980) which are known as symbolic modeling, we generally use live models. Teachers would point out critical behaviours of certain children stressing their positive social interactions and the social rewards achieved. This is done with individual children but more often in small groups.

Perhaps the social skills training method most used at Kateri is that of direct reinforcement. Techniques such as use of teacher attention and token economies as rewards for appropriate social inter-

actions and the use of time-out procedures for maladaptive behaviours have proven effective and seem to remain so over time.

#### CONSULTING MODELS:

The Hamilton Separate School Board employs specially trained consultants to help meet the needs of the exceptional students in the system. Often they are called upon to suggest strategies, materials and programs but perhaps even more often they provide teachers with the necessary reaffirmation that they are doing a good job. Much of the testing that is required as part of the yearly review for special needs children is done by them or under their auspices. In-service training of teachers and student aides and much of the liason with other boards, institutions and health agencies falls to them as well.

Although a review of the literature on consulting models indicates that little research has been done in terms of the efficacy of this approach, studies by Cantrell and Cantrell (1976), Buffmire (1977), and Miller and Sabatino (1978) may be of interest to the reader. Of these the Cantrell and Cantrell study, although not methodologically perfect, provides us with some promising results. In this study, students of two schools who scored similarly at pre-test were compared. One received consulting services while the other served as a control. Positive gains, as measured by a standardized achievement test at post-test, were reported across all I.Q. ranges for the children in the consultant visited school.

INDIVIDUALIZED INSTRUCTION:

Once a system agrees to undertake a mainstreaming program, the first question asked is, 'what do I do with the kid once he comes into my class?'. The answer generally given, is to provide individualized instruction for all the classes containing such students. In graded classrooms, someone other than the homeroom teacher generally would produce an individual package of material for the student to work on while the teacher teaches the rest of the class. The problem in this approach becomes obvious especially in light of the tracking research discussed earlier. At the other end of the spectrum, school boards would provide a totally pre-packaged, purchased program. This is the type of program that much of the research has focused on. Unfortunately, unless funded by a research grant, most boards could not afford this approach on a long term basis.

At Kateri each mainstreamed child has developed for him an Individual Education Plan (I.E.P.) (appendix 14). This is a co-operative plan done in consultation with all of the adults who work with the child as well as with the parents. Since we have a non-graded system, a homeroom teacher would have several clusters of children functioning at different levels of abilities within his class. A teacher of ten year olds (Grade 5) for example, might have three or four clusters of groups of children for whom he is responsible. Included in this grouping might be children who are working at the fifth grade level, at the sixth grade level and one child in an I.E.P. who is working at the readiness stage. As discussed earlier, the teacher must then

muster the resources at his disposal from the whole school community to meet the needs, social, emotional, academic and in our case spiritual, of all of the children in his class.

The literature provides many examples of controlled individualization studies. These are all based on elaborate individualization models which include prescribed purchased programs material and instructional aides. Of these the Leinhardt (1980) study and a study by Want (1982) are perhaps the most interesting. The former, reports results that indicate children who were randomly assigned to one of these treatment groups and exposed to an individualized reading program in a mainstream class achieved more than children in a mainstream class where a basal reader was used, and both groups achieved more than students in a regular class where the individualized program was used. The latter study deals with a very elaborate program of individualized instruction called the Adaptive Learning Environments Model or ALEM. Briefly, the ALEM program includes individually prescribed program materials as well as an inquiry based approach where children gather first hand information to solve problems. Built into the system are instructional aides and team teaching strategies which allow teachers to work with small groups or individuals. Although Wang's controlled, methodologically correct study using ALEM classes versus control classes, produced significantly higher results for ALEM classes, one wonders if the cost of such a program would limit its use.

Although we have been extremely pleased with the gains that our mainstreamed children have made in our program in the short term, one

area continues to concern us. Even with the use of social skills training, consultation and individualization, some children experience no long term gain in terms of social acceptance. Recently, we at Kateri have been very excited about some new research that not only helps students overcome the barriers to friendship and interaction but also provides for the enhancement of achievement for ALL of the students in the class, handicapped and non-handicapped alike.

#### FUTURE DIRECTIONS:

As just stated in the last section, much of the literature provides us with little proof that, despite achievement, gains, mainstreamed children receive little in the way of long term social acceptance. New models, called co-operative learning models, have recently been introduced which have the potential to change all of this.

Many educators, including those of us at Kateri, would argue that the single greatest deterrent to education is the presence of unfair competition found in traditional classrooms. This drive for the few A's that are at one end of the Bell Curve puts many children, especially mainstreamed children, at a distinct disadvantage. Even with individualized instruction, there is a push to get the most right answers and to finish the most packages of material. Studies point out that under these conditions students not seen as "winners" are often isolated and deprecated. (Ames, Ames and Felker 1977) It is not surprising therefore, that children who have returned to competitive

classrooms after short term interventions might not be able to maintain gains made in social status. Co-operative learning models, as the name suggests, stresses co-operation between handicapped and non-handicapped students. In a review by Slavin (1983) more than three dozen methodologically adequate experiments, ranging up to two years in duration, found more positive effects on student achievement, time on task, racial relations, self-esteem and other outcomes as compared with more traditional approaches. These results clearly benefited all of the students in the class not just the mainstreamed students.

There are several types of co-operative learning models such as Student Team - Achievement Divisions and the most popular, Team Assisted Individualization. Basically, groups are formed containing a cross section of abilities. After students study individualized worksheets and are exposed to a teacher presentation, they are individually tested but only team scores are recorded. Team scores are calculated based on the amount of improvement that each team member shows over his own past achievement. It is in each person's best interest to work with other team members to improve everyone's score.

The research in this area clearly indicates the positive effects of co-operative learning on student self-esteem but perhaps more importantly these results have been maintained over time. Since few schools would use a mainstreaming program that did not at least maintain the achievement levels of the rest of the class, it is interesting to point out, once again, that co-operative learning studies report that achievement is increased for the class as a whole.



We are Blessed Kateri Tekakwitha School are eagerly anticipating incorporating the co-operative learning model into our teaching methods.

CHAPTER IV  
FURTHER RESEARCH

INTRODUCTION:

In Chapter III a description of a school board's philosophy with respect to the integration of exceptional pupils was presented. As well as this, an individual school's implementation of that philosophy was also presented. A rapidly expanding literature in the area of integration, (see Certo et al (1984) with rare exception, takes the position that integration is both proper and overdue. Yet, most severely handicapped students continue to be served in segregated, handicapped-only schools. Perhaps, the reason for this goes further than a simple unwillingness to provide service or a mere philosophical or professional disagreement concerning least restrictive environments. It may even involve more than the fact that a shift of service from segregated handicapped-only schools to neighbourhood schools involves the risk inherent in change. It is my contention that much of the pro-integration literature has, for the most part, been unvalidated. Although the integrated school system described in Chapter III has recently been called the "model for North America" by the National Institute for Mental Retardation, it too, relies primarily on the reflections of professional educators' personal experiences and interpretations to prove its efficacy. Instead of first-hand reports

of individual intervention programs which support positive results using anecdotal evidence, what is needed, in my opinion, is extensive field testing and objective measurement of both process and product variables. This chapter will be devoted then to this issue of evaluative research and a research proposal will be presented.

A major issue in educational research deals with implementation evaluation. Some might argue that policy oriented innovation really does not occur in education at all and that careful scrutiny of innovative claims would bear this out. Because of this, the issue of process evaluation will be addressed. A methodological design known as "qualitative evaluative research" will be analyzed and recommended as the most appropriate way to examine the claims made by normalized integrated schools, partially segregated schools and completely segregated schools in dealing with severely handicapped children.

As we establish whether or not what people say is happening in their program is in fact happening, it is also necessary to examine the outcomes, or the product of the various administrative strategies discussed above. In order to assess the extent to which the actual results of the programs are consistent with their anticipated or hypothesized results, the more traditional tool of formal science, namely, the logical empirical model of programme evaluation will be recommended.

This final chapter will also describe the format to be adhered to in outlining the proposed process evaluative research. This format has been suggested by Bogdan & Taylor (1975). As mentioned above, the

second part of this chapter will be devoted to a proposal for product evaluative research. In order to maintain the integrity of this proposed research an "inventory of threats to experimental validity" (Campbell, D.T. 1969) will be discussed. The suggested outcomes analysis study will be designed with these "threats to validity" in mind so that upon completion of the study a definitive answer can be given to the question of which administrative arrangement best meets the social, emotional and academic needs of all children, handicapped and non-handicapped alike.

#### QUALITATIVE EVALUATIVE RESEARCH:

Throughout the first three chapters of this work and in fact throughout most of the integration literature much has been made about the efficacy of one form of treatment over another. By and large these claims have been made based solely on the results, outcomes or products of specific administrative arrangement with little regard to the evaluation of the process of such arrangements. Product evaluation assumes that it is necessary to develop standards or criteria by which a programme's worth is judged. Although this type of evaluation is necessary, it ought to be accompanied by a research methodology that is inductive in nature and oriented toward the generation of insights and the attainment of understanding of process events. This is so because, in dealing with educational evaluation, it becomes especially necessary to determine if the experimental and control groups are in fact being treated differently. Charters and Jones, (1973) point

out that treatments are sometimes not implemented or they are altered during the course of the evaluation. Since the protocol has not been followed, compliance is threatened, and bias is introduced, leading to what they term the "efficacy of non events".

Qualitative research is inductive to the extent that one makes sense of situations by gradually formulating generalizations based on data gathered through specific observations (Becker, 1970).

Qualitative research is also naturalistic in that one does not manipulate or control the research setting. Rather, the researcher seeks to engage the setting as it exists in its natural state (Guba, 1978). The researcher's role changes from that of an "operator" who produces data by contriving events, to that of a "transducer" who transforms naturally occurring phenomena into research data (Barker, 1965). One effects this transformation through a method known as participant-observation which is, as Bogdan and Taylor (1975) point out, "characterized by a period of intense social interaction between the researcher and the subject in the milieu of the subject. During this period, data are unobtrusively and systematically collected." Gold (1958) describes four predominant research roles that characterize participant-observation:

- i) complete participant - whereby the researcher's activity is completely concealed from the participants.
- ii) participant-as-observer - here the role of the researcher is not completely concealed but he is apt to spend more time and energy participating than observing.

- iii) observer-as-participant - from the outset the researcher's role is made public. It is generally used in formal situations involving one-visit interviews; and
- iv) complete observer - in this role no attempt is made to participate in the setting under investigation in fact people are observed without their knowledge.

Once the researcher assumes one of the above roles he then will generate data using two complementary yet different methods. Each method is emphasized to a greater or lesser extent in studies using qualitative research. These have been described by Lofland (1971) as

- i) unstructured direct observation and description of a social setting accompanied by the recording of the observations in the form of field notes; and
- ii) open-ended interviewing of the participants who comprise the social setting and verbatim recording of the verbal interaction between the researcher and the participants.

In order to collect data the qualitative researcher uses a technique which Patton (1980) calls purposeful sampling. Unlike random sampling which generalizes to whole populations based on randomly selected representatives, purposeful sampling selects certain cases, situations or participants of a programme as a sample with the intent of understanding something about it rather than generalizing to all such cases, situations or participants. The following provide the qualitative researcher with several purposeful sampling techniques. (Patton, M.Q. 1980).

- i) sampling extreme or deviant cases,
- ii) sampling typical cases,

- iii) maximum variation sampling in which three or four cases that represent a range on some dimension are chosen,
- iv) sampling politically important or sensitive cases; and
- v) convenience sampling in which the least time-consuming, least expensive or cases which are easiest to access are chosen.

The next step in qualitative data collection is what Bogdan and Taylor (1975) refer to as the pre-fieldwork phase of qualitative research.

It involves:

- i) articulating the specific research questions which the study is to answer;
- ii) deciding on a research site that will provide answers to those questions;
- iii) choosing from among the various research roles that might be taken on in the research setting;
- iv) deciding which data-gathering methods and sampling strategies would be most appropriate in the setting;
- v) gaining admittance to the research setting through a process of negotiation with the setting's gatekeeper;
- vi) coming to an agreement with the gatekeeper regarding the scope or boundaries of the study and what each side (gatekeeper and researcher) will provide for the other; and
- vii) deciding upon what information will be given to participants in the setting as to the purpose of the study.

In the next phase or the field work phase the researcher must, as Bogdan and Taylor (1975) point out:

- i) make a non-threatening entrance into the setting;

- ii) establish rapport with the participants in the research setting;
- iii) gain access to the data that he deems important to collect; and
- iv) record complete, accurate, and detailed field notes as well as verbatim transcriptions of interviews.

Rather than using data collected in an attempt to seek after absolute truth, the participant-observer seeks only to "demonstrate the plausibility of his or her hypotheses and not to "test" or to "prove" them. (Bogdan and Taylor 1975)". The qualitative researcher examines the data for the presence of recurring themes or patterns. He then categorizes these themes and formulates his hypotheses. As in all science these initial hypotheses are then re-evaluated and accepted, rejected or re-worked. The last stage in this, the third phase of the qualitative research process which Bogdan and Taylor (1975) call "working with data," is the verification stage. Verification is accomplished by entertaining and evaluating rival interpretations of the data, by seeking negative cases which contradict the interpretation, by triangulation in which multiple data sources are compared in terms of their interpretation of the setting or by having the participants critique the interpretation and understanding arrived at by the researcher (Patton 1980).

The fourth and final phase of the process is the presentation of findings. According to Bogdan and Taylor (1975) the qualitative researcher may do this in one of three ways as follows:

- i) he may present his data in an edited, but



purely descriptive form in which the reader is left to interpret the meanings of the subjects' words and actions for themselves;

- ii) he may present his data in terms of the themes that he considers crucial to understanding the setting or the perspectives of the individuals in the setting; or
- iii) he may present his data in terms of broad theoretical issues which go beyond the specific setting or group of participants.

Although some members of the scientific community might judge the methods of qualitative research to be less than adequate, ample justification for its use can be found in the work of Patton, M.Q. (1980) and Guba, E.G. (1978). Perhaps the following best summarize the objections to qualitative research.

"At best, some social scientists are willing to recognize that qualitative methodology may be useful at an exploratory stage of research prefatory to quantitative research. What they deny is that qualitative methodology can be a legitimate source of either data collection, systematic evaluation, or theory construction."  
Patton, M.Q. (1980)

However, in a monograph dealing with naturalistic inquiry in educational evaluation Guba (1978) develops a very cogent series of arguments in defense of qualitative inquiry. He lists the three problems which qualitative research presents namely, boundary, focusing and authenticity. Each of these problems is then dealt with in turn and convincingly refuted. Upon completion of an analysis of the monograph one might agree with Wolf & Tymitz that:

"The paradigm of natural inquiry is comprehensive in scope, demanding in design, and

requires a set of honorable skills that even some rigid experimentalists lack" (Wolf R.L. & Tymitz B. 1977)

It seems reasonable then to suggest that the methodology of qualitative evaluative research be used as the model for one part of the proposed study. In the next section a description of the application of this methodology to an analysis of the process used by the three types of schools mentioned above will be presented.

#### PROCESS EVALUATION

As outlined throughout this paper, a whole range of administrative arrangements are in use in attempting to meet the needs of children with handicapping conditions. In the three school boards within the Hamilton-Wentworth Region, one can find examples of three such arrangements for dealing with children labelled trainably retarded. The Wentworth County Board provides an example of a school that is completely segregated in that all of its students are trainably retarded. The Hamilton Public Board provides an example of a partially segregated school, in which students labelled trainably retarded are taught in typical or regular schools but with only limited planned interaction with typical children. Finally, the Hamilton Separate Board provides us with a normalized integrated school in which trainably-retarded children, for the most part, are taught in typical classes with their chronological peers. The proposed study will focus on an evaluation of a school in each of these boards. Later, I will

describe a proposal to examine the impact that each type of school has on the children it serves (product evaluation) but first I will outline a proposal that focuses on an evaluation of the process of each of these schools' programmes. This approach will allow the researcher an opportunity to acquire a more in-depth understanding of the internal dynamics of each school. More importantly it may serve as an evaluability assessment which Schmidt et al., (1982) describe as:

...an evaluation pre-planning step that attempts to separate reality from rhetoric...  
Few programs are well defined at their initiation and although years of operation and change add complexity, they almost never add clarity.

(Schmidt et al., 1982)

#### PRE FIELD WORK PHASE

##### SPECIFIC RESEARCH QUESTIONS:

The results of the data collected through the proposed product evaluation of this study will only make sense, in my opinion, if they are viewed in light of the information derived from the process evaluation section. This is so, since the professed philosophies and the professed strategies employed in each of the three administrative arrangements may not reflect the daily reality in the schools. It is important at this first level of evaluation then to determine if the three settings do in fact, provide children with handicapping conditions

with different types of educational experiences. In order to do this, the researcher would set up a series of advanced organizers that would be used to generate specific information about the programmes provided in each setting. These might include questions about:

- i) curriculum - what is the content? how does it differ from typical content?; Is it packaged commercially?; name the programmes?;
- ii) delivery - who is responsible for the preparation of programme?; who actually teaches it?;
- iii) setting - where are the handicapped students taught?; what, if any, time is spent in segregated setting and an integrated setting?
- iv) out of class experiences - what happens to handicapped children during: lunch, recess, assemblies, trips and other school functions?
- v) definitions - what does segregation/integration mean; what are your beliefs about how children learn? and
- vi) strategies - what are the teaching techniques employed?; what activities to teachers, para-professionals or volunteers engage in?

The above list is not meant to be a definitive list but rather a beginning. The researcher would gather information regarding the above organizers employing the methods of informal interviews and by direct observation. As a result of the information obtained the following specific research questions might then be addressed:

- i) what are the similarities and the differences of the three schools in the study as to the way in which they educate children with handicapping conditions?; and

- ii) what are the issues and concerns that have arisen as a result of the implementation of each of the administrative arrangements as they apply to the education of all children?

#### THE RESEARCH SITE AND ADMITTANCE TO IT:

Once the research questions have been decided upon and the decision made as to the most effective evaluative methodology capable of answering them, the next step is to decide where the study will take place and then to go about getting permission to undertake the study. Since the three school boards in the Hamilton-Wentworth Region provide ideal examples of the kind of schools necessary for the study, the proposal is that a normalized integrated school be identified from the Hamilton Separate Board; a partially segregated school be identified from the Hamilton Public Board; and a totally segregated school be identified from the Wentworth County Board. For reasons that will be discussed more fully in the section dealing with product evaluation, the three schools should be matched according to variables such as, school size, ethnic mix, socio-economic structure and geographic location. This task would have to be done in conjunction with the supervisory personnel of the three boards. The three people to approach in order to obtain the necessary authorization to conduct the study would be the Superintendent of Operations in the Separate Board, the Superintendent of Curriculum (Special Education) in the Public Board and the Superintendent of Special Services in Wentworth County. In my opinion, these gentlemen possess the necessary power to

allow the study to take place and at the same time are far enough removed from the schools so as not to become a participant in the study.

#### SCOPE AND BOUNDARIES OF THE STUDY:

Since the study is evaluative in nature and since some of the data generated could lead to unjustified criticism of programmes and personnel, I would recommend that the actual publication of the study not include the name of the schools or school boards used. Further, the names of the personnel in the study would also not be used. This is in keeping with the American Psychological Association (1973) who deem the naming of personnel unethical. Finally, I would recommend that the participants in the study not be made aware of the purpose of the study until such a time as the researcher deemed it necessary, in order to control for cointervention and contamination. Given these boundaries and the assurance of confidentiality, the supervisors would be asked to ensure the researcher free access to observe and interview any staff member that the researcher felt could provide him/her with necessary information.

#### RESEARCH ROLE:

Once the specific research questions which the study is to address have been articulated, the appropriate evaluative research methodology to answer these questions chosen, and the site and admission to it arranged, the next task is to decide upon the role that

the researcher will assume in conducting the research. As stated earlier the method of qualitative evaluative research employs some form of participant-observation. Because the research will be done in schools and because any "visitor" in a class would be immediately noticed, I would recommend that the researcher assume the role that Gold (1958) referred to as the observer-as-participant, where:

...the researcher's activities are made public at the outset ——it calls for relatively more formal observation than either informal observation or participation of any kind." (Gold, L. 1958)

The researcher would observe the activities of the staffs of the three schools, talk to them about the activities observed and record the data in the form of field notes. Once a large proportion of the observational and informal interview data has been collected it is necessary to conduct a standardized yet open ended interview with each staff member or volunteer working in the schools. If the researcher has not as yet done so, it would be necessary at this point for the researcher to describe in detail why the interviews were taking place and at the same time outline the scope and nature of the study being undertaken to each staff member.

#### FIELDWORK PHASE

#### THE RESEARCHERS:

It is important at this point to describe who would undertake the proposed research. First, I think that two researchers should be

hired to conduct the study. The senior researcher would supervise the study, conduct and analyze the results of the product evaluation; and formulate conclusions based on both evaluations suggested for the study. Because of the complexity of the study and the expertise necessary to undertake it, this person should hold at least a masters degree in psychology and should be paid accordingly. The second researcher would conduct and analyze the process evaluation, would work under the supervision of the senior researcher and would be paid on a fee for service basis. The assistant chosen for the qualitative research ought to have been trained in fieldwork in one of the areas of social science, perhaps anthropology. He should not be given advance information about the schools in the study, in order to avoid preconceived bias. Rather, he should be left to determine by discussion and direct observation the organizational structure of the schools.

#### ENTRY INTO SETTING:

The senior researcher will meet with the three supervisors, identified earlier, to determine the schools to be used in the study. They will then accompany the qualitative researcher to each of the schools to meet the principal and staff. Together the researchers and the superintendent will explain the procedure to be used and the scope of the study. Again, confidentiality will be assured by all concerned. The purpose of the study will not be fully explained at this time other than to mention that it concerns techniques for educating children with handicapping conditions.



### SAMPLING:

As Patton (1980) indicates, the assistant researcher has several sampling techniques at his disposal that can be used to collect data. These techniques which are designed to allow the researcher to gain a representative understanding of the phenomena under investigation comprise a process called purposeful sampling. Of the specific purposeful strategies outlined earlier in the chapter, the one that is recommended for the proposed study is maximum variation sampling. This is a sampling technique "in which three or four cases that represent a range on some dimension are chosen." (Patton, M.Q. 1980).

### PARTICIPANTS IN THE STUDY:

Since the focus of the proposed qualitative evaluative study is on the similarities and differences of the three administrative arrangements (normalized integrated, partially segregated and segregated schools) and the issues and concerns that these arrangements bring about, then, as Patton (1980) terms it, the unit of analysis is the staff of each school. By staff I mean anyone dealing educationally with the children. This could include the principal, vice-principal, teachers, para-professionals, volunteers, consultants and ancillary support people such as physio, occupational and speech therapists.

The assistant researcher in the study would also ascertain the following information from each staff member:

- i) length of experience working in educational settings;

- ii) length of experience working with children with special needs;
- iii) formal educational background; and
- iv) formal training to deal with exceptional children

This information could then be recorded and compiled in table form for later comparative use.

#### METHODS OF DATA COLLECTION:

As indicated in a previous section, the sampling technique chosen for the proposed study is maximum variation. This is not to disagree with Campbell (1969) who maintains that, "the general ethic for social scientists is to use the very best method possible, aiming at true experiments with random control groups". In my opinion randomized treatments are not possible in this instance so, as Campbell (1969) further states, "we must do the best we can with what is available to us". With this in mind, the proposal for data collection will contain randomized procedures wherever possible.

During the second week in September one of the supervisors, the senior researcher and the assistant researcher will visit each school to meet with the principal and staff and briefly outline the scope of the study as outlined in the section entitled, Entry Into Setting. At that time, the assistant will ask the principal to block out any days or weeks between October and May that would be inappropriate for observation. These occasions would include professional activity days, examination days, religious holidays, school holidays or any

other days that the school decides upon. These days will not be used as observation days by the researcher. Using the remaining school days between October and May the researcher will randomly assign visitation days to each school. The total number of days spent in each school will be twenty, with no more than five visits to any given school in a month. Since these days are randomly assigned, they might fall consecutively or be spread out over the whole month. Only the researchers will know the visitation dates in advance. The reason for the randomization and the secrecy is obviously to eliminate any rehearsal or preparation bias that might otherwise occur.

As the researcher assumes the role of observer-participant, he will have his first opportunity to observe the activities of the staff and discuss the observations with them. He will maintain this observer-participant role for approximately fifteen observation days. The primary method of data collection during this period will be direct observation of the study's participants as they engage in the activities of the school's programme, and reading and analysis of school or Board documents that pertain to philosophy or objectives.

The data generated by direct observation of the school programme will be recorded in the form of field notes. In order to maintain confidentiality a systematic way of representing each staff member must be developed. This could be an alphabetical/numerical combination such as 19, P.S.2, S4, where 19 would be staff member number 9 from integrated school; P.S.2 is staff member number 2 from partially segregated school and S4 is the 4th staff member of the segregated school.

The above data will be supplemented by the information gathered from document analysis. It is hoped that information from these sources will help to answer some of the proposed study's research questions.

During approximately the last five observation days the researcher will concern himself with the open-ended interviewing of the staff. Although open-ended interviews take two forms, informal and standardized, during this period only standardized open-ended interviews will be used. In the course of conducting the direct observation, the researcher will no doubt have a need to carry out many informal open-ended interviews that will serve to clarify specific events or procedures observed. The standardized interview will, according to Guba (1978), allow the researcher to "flesh out" the data collected from other sources and methods. (The reader is advised to refer to a text entitled, Qualitative Evaluation Methods by Patton, M.W. (1980) pages 200-206 and appendix 7.1 for an exhaustive explanation of standardized open-ended interview procedures and techniques.)

#### WORKING WITH DATA:

Qualitative data collection and qualitative data analysis, seem, as Bogdan and Taylor (1975) point out, to occur simultaneously:

"In a sense, data analysis is an on-going process in participant observation research. Observers note important themes and formulate hypotheses throughout their studies. They pursue the broad questions and areas of interest that were on their minds when they entered the field."

One leads into the other which leads to further collection to broaden and clarify the original insights until the desired depth of interpretation is reached.

Data analysis takes place as data are being collected and again when data collection is complete. In the first instance the ongoing data analysis is, as Patton (1980) points out, inductive in nature and consists of four steps:

- i) the determination of whether each new event, statement, or piece of documentary information was relevant to the study's research questions;
- ii) the examination of the relevant data for consistencies or patterns;
- iii) the categorization of data which tended to cluster together; and
- iv) the gathering of further data to elaborate on or flesh out the properties of the categories.

The second stage, that which is completed following data collection, contains both inductive and logical analysis (Patton, 1980), and is made up of a series of analytical steps which include:

- i) transcribing standardized interviews;
- ii) coding the standardized interview contents;
- iii) development of a general typology;
- iv) prioritization of categories; and
- v) linking of categories.

#### PRESENTATION OF FINDINGS:

The last stage of Bogdan and Taylor's (1975) suggested format

regarding process evaluation through qualitative research is the presentation of findings. They indicate three levels of description. For this study the researcher ought to use the second level of description in the presentation of the qualitative research findings. This approach blends the two extremes of level one and level three. It is highly descriptive as is level one and, like level three, presents generalizations which apply to particular phenomenon being investigated. Bogden and Taylor, (1975) define this second level of description as follows:

"At this level, researchers present data in terms of one or more themes that they consider central to understanding certain aspects of a setting or a subject's perspective. They thus report their findings in their own words and with their own interpretations." (Bogdan & Taylor, 1975)

#### AUTHENTICITY OF THE METHODOLOGY:

In concluding this section on the use of qualitative research as a tool to process evaluation, the researcher must still keep in mind the need for authenticity. The methodology of the study should have applied to it the criteria of objectivity, reliability and validity. Guba (1978) agrees with this but points out that these concepts must be reworked so that: validity becomes either intrinsic or extrinsic adequacy; reliability becomes replicability; and objectivity becomes impartiality. (The reader is invited to read Guba, E.G. (1978) Toward A Methodology of Naturalistic Inquiry In Educational Evaluation pages 60 and following for an in-depth discussion of this point.)

The final task of the qualitative researcher will be to meet with the quantitative researcher to compare, contrast, analyze and present the information that he obtained in trying to answer the questions posed in the process evaluation section of the proposed study. In the next section and following, I will discuss the product evaluation component of the proposed study.

#### QUANTITATIVE EVALUATIVE RESEARCH:

Qualitative research provides us with the methodology necessary to examine the daily activities and programmes of the schools identified for the proposed study in order to ascertain a description of the actual process of each programme as compared to its ideal process. It does not allow us, however, to examine the outcomes or products of the programmes in each of the schools. It is necessary therefore, to identify a methodology that is capable of assessing the extent to which the actual results of the programme are consistent with the anticipated or hypothesized results of the programme. In order to accomplish this, I am proposing that the study adopt the methodology that Sullivan (1980) and others have called "logical empiricism."

#### LOGICAL EMPIRICAL EVALUATIVE RESEARCH:

This methodology is a combination of formal science and empirical science (Randall, J.H. and Buchler, J. 1963). It includes both the hypothetical and deductive nature of mathematics and logic and the

experimental nature of physical and social science. Logical empiricism as defined by Randall & Buchler has many facets, including; materialism, naturalism, realism and determinism. Each of these characteristics, in its own way, provides logical empiricism with a method by which it can conceptualize the universe, define the scope of the scientific investigation and provide the rationale which allows it to pursue the study of such universals as relations among events and cause and effect laws.

Logical empiricism accomplishes this through the method of the experiment, which Houston defines as:

"a study in which an investigator interferes with a process, so that the random subsets of the units processed are differently treated and measurements are collected in such a way that the variability amount units which were treated the same way can be estimated."

(Houston, R.T. 1972)

In using the experimental method for programme evaluation it is necessary to ensure both internal and external validity. Given this assurance, one could then conclude that the independent variables caused any observed changes in the dependent variables and further that this causal relationship could be generalized to different groups, classes or populations in other settings. To ensure that the product evaluation which is being proposed provides sufficient safeguards to maintain its integrity, Campbell's (1969) "inventory of threats to experimental validity" will be used. Following are nine threats to internal validity:

- i) History: events, other than the experimental treatment, occurring between pretest and



post-test and thus providing alternate explanations of effects.

- ii) **Maturation:** processes within the respondents or observed social units producing changes as a function of the passage of time per se, such as growth, fatigue, secular trends, etc.
- iii) **Instability:** unreliability of measures, fluctuations in sampling persons or components, autonomous instability of repeated or "equivalent" measures. (This is the only threat to which statistical tests of significance are relevant.)
- iv) **Testing:** the effect of taking a test upon the scores of a second testing. The effect of publication of a social indicator upon subsequent readings of that indicator.
- v) **Instrumentation:** in which changes in the calibration of a measuring instrument or changes in the observer or scores used may produce changes in the obtained measurements.
- vi) **Regression artifacts:** pseudo-shifts occurring when persons or treatment units have been selected upon the basis of their extreme scores.
- vii) **Selection:** biases resulting from differential recruitment of comparison groups, producing different mean levels on the measure of effects.
- viii) **Experimental mortality:** the differential loss of respondents from comparison groups.
- ix) **Selection-maturation interaction:** selection biases resulting in differential rates of "maturation" or autonomous change.

(Campbell, D.T. 1969)

Campbell also provides us with six threats to external validity:

- i) **Interaction effects of testing:** the effect of a pretest in increasing or decreasing the respondent's sensitivity or responsiveness to the experimental variable, thus making the

results obtained for a pretested population unrepresentative of the effects of the experimental variable for the unpretested universe from which the experimental respondents were selected.

- ii) Interaction of selection and experimental treatment: unrepresentative responsiveness of the treated population.
- iii) Reactive effects of experimental arrangements: "artificiality"; conditions making the experimental setting atypical of conditions of regular application of the treatment: "Hawthorne effects."
- iv) Multiple-treatment interference: where multiple treatments are jointly applied, effects atypical of the separate application of the treatments.
- v) Irrelevant responsiveness of measures: all measures are complex, and all include irrelevant components that may produce apparent effects.
- vi) Irrelevant replicability of treatments: treatments are complex, and replications of them may fail to include those components actually responsible for the effects.

Campbell, D.T. 1969)

With Campbell's threats to experimental validity in mind and using the experimental approach of the logical empiricist, the next section will outline a proposed product evaluation of the programmes of the three schools.

#### PRODUCT EVALUATION

The integration/segregation debate is made up of many of the issues that have been discussed throughout this paper. For the purpose

of this section, some of these will be highlighted again.

Integrationists view the issue as a civil rights issue and offer litigative decisions to support their claim. They maintain that integration is cost effective as compared to segregated services in handicapped-only settings since the administrative and programmatic components available to all children in the mainstream need not be duplicated. In order for the students to acquire and practice functional skills, integrationists argue that severely handicapped people must make contact with the mainstream of the community. Conversely, the non-handicapped community must have integrated experiences if they hope to develop the attitudes and skills necessary to fully accept the handicapped into the mainstream of the community.

Segregationists argue that there are not enough handicapped children within the neighbourhood school boundaries to warrant the expense of ancillary services and they maintain that centralized services are much more efficient. Although segregated settings may create long transportation times for the children, segregationists view this as a necessary evil given the specialized transportation needs of many handicapped children. The physical inaccessability of older neighbourhood schools is another argument cited for segregated settings. Finally, many parents and special educators support handicapped-only placement: parents, because they are loyal to those schools that have educated their children when public schools would not and special educators who may view their jobs as being tied to segregated settings.

All of these issues are burning issues for both sides and the literature is full of attempts, for the most part unsuccessful, to resolve them. They are unresolvable not in and of themselves but, in my opinion, because of the values component attached to them.

This part of the study will attempt to divest itself of these value-laden issues and will focus instead on measurable change data at the level of the individual schools selected for the study. Because of this, the proposed study will focus on the following issues:

- i) academic achievement;
- ii) social acceptance/rejection; and
- iii) self-concept

Although not traditionally considered important issues, attendance patterns and vandalism in the three schools will be examined. These two issues are worthy of study for many reasons. For example, parents have often commented to me that their handicapped child's health had improved after entering a normalized integrated school but I have not found any documentation concerning this. If upon comparing the attendance patterns of the three schools one were to find a significantly lesser degree of absenteeism in one of the schools as compared to the others in the study one might speculate as to the reasons and this in turn could lead to a whole new set of research. The vandalism issue is important for much the same reason. I have long maintained that children don't vandalize schools that they feel good about much the same way as they don't generally vandalize their own possessions. If

there exists a marked decrease in vandalism in one of the schools it too could provide a spring board for further research. The final issue to be examined deals with teacher contact time. The researcher will be required to actually time the interaction between the teacher and the students. If the achievement test scores of typical children in integrated settings vary from those obtained by typical children in segregated settings, then the issue of handicapped children "stealing" instructional time from the rest of the class can begin to be addressed.

#### THE RESEARCH SITE:

The research for this part of the proposed study will take place in the three schools identified for the process evaluation section plus one more school. This extra school will be used as a sister school to the completely segregated Wentworth County school. The reasons for the use of this extra school will become obvious in the section on data collection. Suffice it to say that for some of the testing protocols a sample of typical children will have to be used. Since, by definition, the segregated school could not provide this information, the researcher would need to go to the closest typical school within the Board's jurisdiction to locate this sample.

The reader is reminded that a description of the research site and entrance into it was provided earlier in the chapter when dealing with process evaluation. This part of the proposed study also provides us with a description of the product researcher, the scope and boundaries of the study and a description of the participants in the study.

METHODS OF DATA COLLECTION:

The proposed product evaluation research will employ a pre-test/post-test design. The senior researcher will conduct pre-tests in each of the four schools during the month of October and post-tests in the same schools during the month of May. Because of the lack of randomization in the study, an analysis of co-variance will be undertaken at pre-test. Since our study is interested in generating change data and since there might be significant differences among the groups at pre-test, this technique tends to equalize all groups at the beginning thus lessening the chance that the data will be biased.

Since the researcher employed to carry out the research will be experienced, he may chose to use any one of a number of commercially prepared tests. The following, however, are the tests that I would recommend:

- i) to test academic achievement - The Canadian Test of Basic Skills and its Subtests or the Comprehensive Test of Basic Skills and its Computations Scales.
- ii) to test social acceptance - the C.A.T.C.H./P.A.T.C.H. Attitude Survey or any Peer Sociometric Rating Scale.
- iii) to test self-concept - the Piers-Harris Children's Self-Concept Scale of the Coopersmith Self-Esteem Inventory and the Illinois Index of Self-Defogation.

Generally, the tests recommended have been field tested and are both reliable and valid. Specifically, each test was chosen because of its strengths.

Both the Canadian and Comprehensive Test of Basic Skills are

easily administered and contain a sufficient range of difficulty so as to test children from the pre-academic range to high school ability.

C.A.T.C.H./P.A.T.C.H. is a new test developed locally by Dr. Rosenbaum of Chedoke McMaster Hospital. The acronyms stand for children or parent attitudes toward children with handicaps. The Peer Sociometric Rating Scale provides us with a reliable and valid index of social status within the classroom. (Asher and Hymel, 1981). It measures peer popularity, acceptance and rejection. Both of these tests stress the need of experience of handicapped children by non-handicapped peers or parents. Traditionally, research comparing the social acceptance of mainstreamed academically handicapped students to similar students in self-contained special education classes has been difficult to perform and interpret since by definition, mainstreamed students are better known to their nonhandicapped classmates than are special class students (Madden and Slavin, 1983).

Both the Piers-Harris and the Coopersmith test will provide an excellent tool to measure self-concept. The Illinois Index of Self-Derogation is recommended because of its design. It makes use of stick figure diagrams and oral questions, thus enabling even very low functioning children to be tested.

#### THE SAMPLE:

The children to be tested will depend on the schools selected. For example, if the partially segregated school chosen contained a segregated class of handicapped children who were between nine and

eleven years old the study would then test children from nine to eleven years old. Hopefully the schools chosen would contain more than one age range thus adding more credibility to the final results.

Since the pre and post test will be given to all children, handicapped and non-handicapped alike, it is appropriate here, to discuss the fourth school previously mentioned. In order to assess whether the academic achievement of typical children is positively or negatively affected by the presence or absence of handicapped children or whether it makes no difference, it is necessary to test some typical children from a neighbouring school of the segregated Wentworth County school in the study. An assessment of attitudes and self-concept will also be done in this "sister" school in order to test the prevailing notion that typical children in the mainstream often feel better about themselves because of their association with their atypical classmates (Donaldson 1980). The choice of a neighbouring school also fulfills the geographic consideration discussed earlier.

#### WORKING WITH DATA:

The quantitative researcher will compare results obtained at pretest with those obtained at post-test. After applying the traditional checks and test on the data to ensure objectivity, reliability and validity, the researcher would, in the classic social science sense, draw conclusions and present his results. In this instance, however, once the researcher is assured of the authenticity of his results, he will compare them with those obtained in the



qualitative section of the study. Only after this comparison has been made, will the final results be drawn and presented. This proposed study is unique, then, in that, product variables are not viewed in isolation but rather are seen as being inextricably tied to the process from which they are derived.

#### CONCLUSION:

The purpose of this final chapter has not been to provide a final solution to the integration/segregation issue, but rather a beginning. The proposed study is important, I think, because it does more than measure the outcomes of various programmes. It proposes, as well, to examine the environment in which the programmes are delivered. This is a novel approach to the resolution of the debate in that, the type of data generated in the qualitative evaluation section affords us the opportunity, not only to account for, but also to improve upon, those variables that make a difference.

Chapters I and II provide us with several examples of studies on both sides of the issue. Despite the multitude of studies and the time, effort and energy expended on them, the debate rages on with proponents on each side remaining completely committed to their position. Chapter III outlines a personal account of my own experience with the issue. Although some promising new research is described at the end of Chapter III, I have, nevertheless, become completely convinced of the need to carry out the type of research outlined above. Personal beliefs, gut reactions and unscientific descriptions

of programmes cannot replace the extensive field testing and objective measurement of both product and process variables.

Blessed Kateri Tekakwitha School

D.P.T. Record for \_\_\_\_\_

Address \_\_\_\_\_ Telephone \_\_\_\_\_

Family status \_\_\_\_\_

Birthdate \_\_\_\_\_

See back for Academic History from O.S.R./other relevant information.

Date: \_\_\_\_\_ See D.P.T. minutes for discussion and diagnosis.

Specific Objectives & Procedures	Responsibility and Time
A	
B	
C	
D	
E	

Target date for evaluation of objectives: \_\_\_\_\_

Date: \_\_\_\_\_ Review  Rereferral

Date: \_\_\_\_\_ Review  Rereferral

Date: \_\_\_\_\_ Review  Rereferral

Academic History from O.S.R. and other documents

Other relevant information (behavioural, social, testing etc).

Date: \_\_\_\_\_ Review  Rereferral

Date: \_\_\_\_\_ Review  Rereferral

Blessed Kateri Tekakwitha

In School Referral Form - D.P.T.

Date \_\_\_\_\_

Student's Name \_\_\_\_\_ Grade \_\_\_\_\_ Age \_\_\_\_\_

Referring Teacher(s) \_\_\_\_\_

1. This student appears to be weak in Reading \_\_\_\_\_, Oral Language \_\_\_\_\_, Spelling \_\_\_\_\_, Writing Mechanics \_\_\_\_\_, Writing Comprehension \_\_\_\_\_, Mathematics \_\_\_\_\_, Social Behaviour \_\_\_\_\_, Other \_\_\_\_\_.
2. What are the "SPECIFIC PROBLEMS" you have observed pertaining to this student?
   
 \_\_\_\_\_
   
 \_\_\_\_\_
   
 \_\_\_\_\_
3. What strengths does this student exhibit?
  - 1) \_\_\_\_\_;
  - 2) \_\_\_\_\_;
  - 3) \_\_\_\_\_.
4. Have you communicated with the parents re-your concerns about this student? Yes \_\_\_ No \_\_\_.
5. a) What program are you presently using with this student in Lang. Arts? \_\_\_\_\_
   
 \_\_\_\_\_
   
 b) What Math group is this student in? 1 \_\_\_ 2 \_\_\_ 3 \_\_\_\_\_.
   
 c) What alternate means have you used in order to meet this student's needs?
  - (i) \_\_\_\_\_
  - (ii) \_\_\_\_\_
  - (iii) \_\_\_\_\_
6. What type of assistance are you seeking in order to help you meet this student's needs?
  - a) an alternate program \_\_\_\_\_
  - b) an additional program \_\_\_\_\_
  - c) specific skill activities \_\_\_\_\_
  - d) modification of present program \_\_\_\_\_
  - e) concrete materials \_\_\_\_\_
  - f) suggestions re-coping skills \_\_\_\_\_
  - g) peer tutor \_\_\_\_\_
  - h) cross age tutor \_\_\_\_\_
  - i) volunteer helper \_\_\_\_\_
  - j) assistance in planning, regrouping etc \_\_\_\_\_
  - k) a "body" to work with you with this student \_\_\_\_\_
  - l) further assessment and observation \_\_\_\_\_
  - m) other \_\_\_\_\_
7. Other comments: \_\_\_\_\_
   
 \_\_\_\_\_

IN-SCHOOL I. P. R. C. MEETING  
MINUTES

DATE:

PRESENT: Philip DiFrancesco (Principal; Mrs. K. Daymond (Vice-Principal), Joanne Gera (Superintendent's representative), Aldona Baltakys (SERT), Bernadette Hendricken (Remedial Reading Teacher), Classroom Teacher \_\_\_\_\_,

STUDENT: NAME \_\_\_\_\_ DATE OF BIRTH \_\_\_\_\_  
 GRADE LEVEL \_\_\_\_\_

- (i) The case was presented by the classroom teacher \_\_\_\_\_, together with Mrs. Baltakys. Discussion followed the case presentation.
- (ii) The Committee, by secret ballot, designated \_\_\_\_\_, an exceptional student: learning disabled \_\_\_\_\_, hearing impaired \_\_\_\_\_, language impaired \_\_\_\_\_, gifted \_\_\_\_\_, educable retarded \_\_\_\_\_, trainable retarded \_\_\_\_\_, orthopaedic and/or physical handicap \_\_\_\_\_, visually impaired \_\_\_\_\_, multiple exceptionality \_\_\_\_\_.
- (iii) \_\_\_\_\_ will receive extra assistance from the classroom teacher, Mrs. Baltakys, Mrs. Hendricken or a volunteer.
- (iv) Review to occur no later than \_\_\_\_\_.

BLESSED KATERI TEKAKWITHA SCHOOL  
22 Queensbury Drive  
Hamilton, Ontario  
L8W 1Z6 385-8212

I.P.R.C. - 1

Date:

Dear Mr. and Mrs.

As you know, according to specifications in Bill '82, we will be discussing progress in school. You may wish to meet the I.P.R.C. Committee on to provide input on progress. The decision of the Committee will be given to you for your approval. Please complete the attached form and return it to school as soon as possible.

Sincerely,

Principal.

.....  
I.P.R.C. - 1

I wish to meet the committee. YES \_\_\_\_\_

I do not wish to meet the committee. NO \_\_\_\_\_

\_\_\_\_\_  
Parents' Signature.

BLESSED KATERI TEKAKWITHA SCHOOL  
22 Queensbury Drive  
Hamilton, Ontario  
L8W 1Z6 385-8212

I.P.R.C. - 2

Date:

Dear Mr. and Mrs.

At the I.P.R.C. Committee meeting which you attended on \_\_\_\_\_, the Committee agreed that \_\_\_\_\_ be designated as an exceptional student. \_\_\_\_\_ will be provided with extra assistance from the classroom teacher, Mrs. Baltakys, Mrs. Hendricken or a volunteer. If you approve, please sign the approval statement attached.

Sincerely,

Principal.

.....  
I.P.R.C. - 2

I approve of \_\_\_\_\_ receiving assistance at school.

Date: \_\_\_\_\_

\_\_\_\_\_  
Parents' Signature

BLESSED KATERI TEKAKWITHA SCHOOL  
22 Queensbury Drive  
Hamilton, Ontario  
L8W 1Z6 385-8212

I.P.R.C. - 3

Date:

Review:

Dear Mr. and Mrs.:

We will be meeting to review \_\_\_\_\_ present  
placement on \_\_\_\_\_ at \_\_\_\_\_. If you have any information  
you would like the I.P.R.C. Committee to consider in the review, please  
contact the school. (You may phone Mr. DiFrancesco or Mrs. A. Baltakys  
at 385-8212). You will be informed of the outcome of the meeting.

Sincerely,

Principal.



BLESSED KATERI TEKAKWITHA SCHOOL  
22 Queensbury Drive  
Hamilton, Ontario  
L8W 1Z6 385-8212

I.P.R.C. - 4

Date:

Dear Mr. and Mrs.:

At our review meeting we decided that \_\_\_\_\_ should  
continue to receive extra assistance from the classroom teacher,  
Mrs. Baltakys, Mrs. Hendricken or a volunteer.

Please sign the consent form below and return to the school.

Sincerely,

Principal.

.....  
I.P.R.C. - 4 - Review

I approve of \_\_\_\_\_ receiving assistance at school.

Date: \_\_\_\_\_

\_\_\_\_\_  
Parents' Signature.

BLESSED KATERI TEKAKWITHA SCHOOL  
22 Queensbury Drive  
Hamilton, Ontario  
L8W 1Z6 355-3212

I.P.R.C. - 5

: . Date:

Dear Mr. and Mrs.:

At our I.P.R.C. review meeting we decided that  
should discontinue receiving extra assistance.

Please sign the consent form below and return to the school.

Sincerely,

Principal.

.....  
I.P.R.C. - 5

I approve of \_\_\_\_\_ not continuing to receive  
extra assistance at school.

Date: \_\_\_\_\_

\_\_\_\_\_  
Parents' Signature.

I.P.R.C. INSCHOOL MONTHLY REPORT

SCHOOL: \_\_\_\_\_

MONTH: \_\_\_\_\_

PRINCIPAL: \_\_\_\_\_

Date of I.P.R.C. Meeting	Name Age Address	Designated Exceptional	Status		Type of Exceptionality				Date to be Reviewed
			Reviewed	No longer Exceptional	Academic	Behavioural	Physical	Other	

Date Submitted: \_\_\_\_\_

Principal: \_\_\_\_\_

HAMILTON-WENTWORTH ROMAN CATHOLIC SEPARATE SCHOOL BOARD  
 Request for Student Services - Referral Form  
 (To be completed by the In-School Diagnostic Prescriptive Team)

Student's Name \_\_\_\_\_ Date of Referral \_\_\_\_\_

School \_\_\_\_\_ Grade/Level \_\_\_\_\_ Age \_\_\_\_\_

Date of Birth \_\_\_\_\_  
 Day Month Year

Address \_\_\_\_\_ Telephone Number \_\_\_\_\_

Name of Parent or Guardian \_\_\_\_\_  
 (Last Name) (Father's First Name) (Mother's First Name)

Nature of Concern

Check (✓)

- A. Academic Achievement \_\_\_\_\_
- B. Attendance \_\_\_\_\_
- C. Behaviour \_\_\_\_\_
- D. Physical \_\_\_\_\_
- E. Social \_\_\_\_\_
- F. Speech and Language \_\_\_\_\_
- G. Other \_\_\_\_\_

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

What language should we use in communicating with the parents/guardian? \_\_\_\_\_

Homeroom Teacher \_\_\_\_\_

Other Teachers involved \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature of Chairperson of D.P.T. \_\_\_\_\_

Signature of Principal \_\_\_\_\_

The Referral Form must be accompanied by:

- (a) a Completed Nurse's Confidential Medical Report Form; and
- (b) a Signed Consent for Student Services Assessment Form.

Blessed Kateri Tekakwitha School

PROGRESS REPORT FOR \_\_\_\_\_

<u>Date</u>	<u>Objectives or Assignments</u>	<u>Evaluation</u>	<u>Signature</u>

*Blessed Kateri Tekakwitha School*  
*Grwards To*

*A Certificate of Service*

*for voluntary help to the school.*  
*By your effort the school has been better able to serve the community in its*  
*striving for the greater good of all its members.*  
*The Principal and Teachers offer their sincere thanks.*

*Date*

*Teachers*

*Principal*

HAMILTON-WENTWORTH SEPARATE SCHOOL BOARD  
BLESSED KATERI TEKAKWITHA SCHOOL  
22 QUEENSBURY DRIVE  
HAMILTON — ONTARIO  
L8W 1Z6  
TELEPHONE 385-8212

TO WHOM IT MAY CONCERN:

This is to certify that \_\_\_\_\_  
participated in a student aide volunteer program at Blessed Kateri  
Tekakwitha School from \_\_\_\_\_ to \_\_\_\_\_.

The emphasis of the program is the fostering of a one-to-one  
relationship between the secondary student and an elementary pupil  
who may have a specific or general learning disability, or a need  
for a big brother/sister.

\_\_\_\_\_ displayed a sense of  
commitment, responsibility and dedication which should be an asset  
to any of his/her future employers.

Sincerely,

Special Education Teacher.

Principal.

INDIVIDUAL EDUCATION PLAN for \_\_\_\_\_ in Grade \_\_\_\_\_ with \_\_\_\_\_

Prioritized Long-Term Goals:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Date:  
 Summary of Present Levels of Performance:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

REVIEW to occur informally every week.....  
 formally at D.P.T. every six weeks -  
 appropriate adjustments will be made.  
COMMENTS:

TITLE	UNIT OF INSTRUCTION & OBJECTIVES	RESOURCES	TEACHING STRATEGIES	RESPONSIBILITY	EVALUATION



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