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HOUSE CRÈCHES FOR BLACK PRE-SCHOOL CHILDREN IN DISADVANTAGED COMMUNITIES

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The author reports on a project which focused on the development of house crèches and parent involvement in pre-school education in Black disadvantaged communities in South Africa. He also introduces a pre-school house crèche model which could be useful in other countries.

The importance of early childhood education to good primary school adjustment is generally accepted. Yet thousands of children have no access to such services. In South Africa there are nearly six million black children under the age of six years and very few have the learning environment that ensures a good start in life. In addition, an estimated 25% of African children per year is likely to leave school illiterate (Educare Research Group, 1992).

The option of providing a one- year pre-school program for all children prior to formal school entry, either within or linked to the schooling system, has attracted a great deal of support from the broader educational field. This is however not a sufficient educational intervention to redress imbalances, and does not address the developmental needs of children under the age of five or the need for children of working mothers (Educare Research Group, 1992).

Attempts to strengthen primary schools must include interventions developed for the pre-school years through a combined approach to early childhood and the early years of primary education (Meyers, 1992). In response to the above, this project establishes a basis for a broader comprehensive program, based on ecosystemic principles.

This project was aimed at black communities in the Western Cape where great educational needs exist. A concerted effort was made to better prepare the preschool child for his/her school career and to develop positive attitudes towards education and school.

The main target group was preschool children of working parents who were being left at home without proper care during the day, and the secondary target group those mothers

who could be trained as creche mothers in order to meet this need for pre-primary care. Some of the best trainees from this group were selected to act as trainers in the community itself. For phase two of the project more parent involvement in preschool development is envisaged.

The project addressed a number of needs at the first-phase level. The most important of these were the need for preschool care and educational stimulation and the community's need to take responsibility for preschool programs and to become self-sufficient in this regard.

Problem

The two basic problems were defined as lack of skills in, and of understanding of pre-school education and lack of day care facilities for pre-school children of working mothers.

Objectives

The objectives of this project were:

The first objective was to train and empower community members of the Khayelitsha community, near Cape Town, as child minders, in order to develop child minding services and pre-school crèches in their communities.

A second objective was to empower and involve parents in the pre-school development of their children. The aim of this project was, therefore, to establish house crèches so that as many children as possible would benefit from preschool care and development programs.

Method

The needs of this community were addressed following the principles of action research. The actual findings were continually modified and refined in order to achieve the appropriate objectives. The structure of the project will be presented from this perspective under the following headings:

- Pre-orientation
- Identification of a trainer in the community
- Empowerment
- Time scheduling
- Training
- Findings
- Conclusions
- Socio-political and other problems
- Trainers' training program

Pre-orientation

Initially, several organisations involved in similar projects were contacted. Although encouragement and support were offered, the following soon became clear:

-There was a lack of co-ordination among these programs;

-Because of their unique features, new projects could not simply slot into existing projects;

-Poor contact between the communities and the primary schools rendered the beginning of education more difficult.

The lack of co-ordination presented the following problems:
- Organisations competed for funds and other support services. This meant that community priorities could not always be addressed realistically.
- Person-power was not used effectively.
- The community was not always aware of the nature and availability of services and training possibilities.
- Continuous situation analysis and continuous, co-ordinated planning within the community did nor exist.
- After completion of projects, there was the danger of lack of continuation and disintegration of community services because of insufficient support and coordination.

The identification of a trainer in the community

In order to initiate and continue a project in a community, a trainer from the community has to be identified according to the following criteria:
- The person must have contact with the community and be able to communicate with its members.
- The person must be respected by the community.
- The person must be dynamic, and be able to organise well, motivate and discipline.
- The person must be enthusiastic, committed, and dedicated to this type of community development.
- The person should have basic training in preschool education or experience of working with preschool children.

The trainer's initial function after identification

This person takes a leading role in the initial situation analysis. The following aspects are important:
- The nature, problems and needs of the community;
- Practical ways of introducing the project and this training opportunity;
- Criteria for identifying members of the community to be trained as creche mothers. The following criteria proved to be of cardinal importance:
  - Do not initially focus on that part of the community where the need seems the greatest. The problems of this group are such that it is extremely difficult to establish house crèches in its midst.
  - Concentrate on the group which:
    - is self-sufficient, but has no work;
    - can read and write;
    - has at least a basic space in which to accommodate a few preschool children;
    - does not work night shifts;
    - is regularly available for training;
    - can reach the training centre reasonably easily;

Empowerment

The aim was to limit dependence on professional and other external aid to the minimum in order to keep the gap between the *exclusive group* receiving training and the community as small as possible.   Once the group experiences that it has a part to play in skills development and helping the community, the bond with the community is strengthened and the credibility of the service is heightened.

During this self-help process, members can share mutual interests, support one another and solve community problems together.   Training therefore becomes an integrated process of serving the community as well as of obtaining services and skills training through the support of the group itself. Important principles are the following:

- The group becomes the norm of reference. This lends legitimacy to the training process.
- Attitudes and perceptions are refined by emphasis on action and practical experience.
- The group itself facilitates communication. Group members therefore do not initially have to overcome cultural, social and educational obstacles.
- Opportunities for socialising improve.
- Group action, group discussion and confrontation by group members help to reduce resistance and defensiveness.
- Since group members are from the same community, they can offer effective, continuous support.
- Certain community tendencies become more evident through the group and can be addressed in a realistic and supportive manner.

Effective planning was regarded as fundamental. The following principles were adhered to:

- The trainer from the community as well as the members being trained must be involved in the planning and initiating of activities . Community-based planning was therefore encouraged. This principle was adhered to throughout, not only to make continuous, relevant adaptations, but also to keep group members actively involved in planning and problem solving.
- The trainer in the community was identified as contact person and co-ordinator.

It is important to identify *success areas* which are encouraging in themselves, but which in the short term also provide the person involved with a feeling of gratification. It became obvious during the running of the project that such a feeling of gratification improved the trainee's self-image and that the trainee then tackled the training as crèche mother with greater self-confidence, understanding and enthusiasm. Immediate and direct action to address the problem therefore does not necessarily empower the people involved.

The following strategies were initially focused on:

- Creating a poster depicting the trainee's personality and interests;
- The skill of generating solutions to possible problems on their own;
- The skills to create from waste;
- Needlework skills (making blankets, clothes and other necessities for a creche);

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- Positive aspects were continually emphasised;
- Deficiencies were addressed in a very positive manner;
- Empowerment, not only in the mastering of skills needed for preschool care, but also in other activities at various levels:
  - further study;
  - giving needlework classes to other adults;
  - making various articles from waste materials;
  - enthusiasm to involve and train other members of the community.

Time scheduling

It is essential to discuss travelling time and transport to the training centre with group members before deciding on the time for meeting. Although the group itself decided on the specific time, it seemed that some members did not consider travelling time and transport before agreeing on the time set. In spite of the above arrangements, various members were often late. This made training difficult and inconvenienced those members who had arrived on time. To solve this problem, a sandwich and coffee bar was started which was open fifteen minutes before the start of the training session. After these fifteen minutes the bar was closed and training began. The group was also told that in order to receive a certificate, all training sessions had to be attended. Students who continually came late would therefore not qualify for a certificate.

The above approach had positive results and a group norm of *being on time* soon developed. The experience of being on time, of structure and of skills development had an empowering effect on group members.

Training

When implementing a project of this kind it is difficult to determine the group members' skills and comprehension level. There is also some uncertainty about the language medium to be used. In this respect the problems are the following:

- Their best medium of communication is their mother tongue
- At home the children are spoken to in their mother tongue.

In this case the group members wanted to do the course in English in order to *place themselves in the market*. They also wanted their children to learn English.

Principles adhered to in training

The basis on which the training was done can be summarised as experiential whereby knowledge is developed within self-help groups through a process of individuals reflecting upon and trusting as valid their experiences in a context of other people with similar experiences.

The trainer explained the concepts and principles underlying the various contents each time. Group members had to think through the practical implications themselves and prepare for the next session. This strategy had the following advantages:

- The trainers were able to gather how much and how the group members understood the contents;

- Because they were taking the initiative, group members gained a feeling of responsibility as well as a feeling of *I can* (empowerment);
- Feedback enabled the trainers to adapt the contents as and when needed; and
- The trainers and the group members also worked together on practical guidelines for use by preschool day mothers.

The following topics were included in the training:

Children's needs
- Trust and the ability to create trust
- Security and the ability to create security
- Health care (nutrition)
- Prevention of disease (hygiene)

Children's play for learning and development
- Physical development and children's play
- Sensory development and children's play
- Cognitive development and children's play
- Motor development and children's play
- Social development and children's play
- Emotional development and children's play
- Spiritual (religious) development and children's play

Stories for learning and development
- Pictures and stories
- Dolls and stories
- Sound and stories
- Movement and stories
- Traditional stories

Music, sound and movement for learning and development
- Sound and pictures
- Sound and stories
- Sound and movement
- Songs and movement

Making toys and musical instruments from waste material

Administration and organisation (How do I plan and organise my day-care duties at home?)

The training program
    First session
- Explanation of the project

    Second session
- Commitment to the project
- Introduction of group members to each other and to the trainers (*collages*)

    Third session
- Feedback using the collages

- Groupwork: Possible problems for me as day-care mother
Fourth session
- Groupwork: Practical solutions to the identified problems by group members
- Groupwork: How do I see the day-care centre I want to start?
- Visit members at home (video shoot)
Fifth session
- Lecture: How can I understand children better? (Children's needs)
- Role play: Consolidation of the above
- Groupwork: What do I do when the children arrive in the mornings?
- Groupwork: What do I do with the children during the day?
- Assignment: Think about how you are going to start and what you are going to do?
    Demonstrate to the group at the next session.
Sixth session
- Lecture: Children's play for learning and development
- Practical demonstrations by the trainees (feedback and role play demonstrations by trainers)
- Video shoot for video feedback
- Assignment: Plan your own activities for demonstration to the group
Seventh session
- Lecture: Stories for learning and development
- Practical demonstrations by the trainees (feedback and role play demonstrations by trainers)
- Video shoot and video feedback
- Assignment: Plan your own activities for demonstration to the group
Eighth session
- Lecture: Music, sound and movement for learning and development
- Practical demonstrations by the trainees (feedback and role play demonstrations by trainers)
- Assignment: Plan your own activities for demonstration to the group
Ninth session
- Making toys and musical instruments from waste material
- Practical demonstrations by the trainees (feedback and demonstrations by trainers)
Tenth session
- Administration and organisation of the day-care service
- Groupwork: Discuss the planning and organisation of your day-care centre (feedback and
    discussion with trainers)

Eleventh session
-          Administration and organisation of the day-care service
-          Groupwork: Discuss the planning and organisation of your day-care
                      centre (feedback and discussion with trainers)

Group members were to start their house crèches, but political unrest broke out. Trainers could not enter the community to monitor the process so another training centre outside the community had to be found. The trainer in the community had to do the monitoring herself and report back to the supervisor of the program. The Cape Town College of Education provided facilities for further training. Meetings took place here and final preparations were made to enable students to obtain their certificates. At this stage four of the group members had already started their own crèches.

Findings

-          Socio-economic problems are a great hindrance to community members
           establishing crèche facilities.
-          There was little knowledge of the child's preschool development or educational
           material.
-          In spite of this, the trainees showed much enthusiasm and determination.
-          Owing to a range of factors, parents are too little involved in preschool
           development.
-          The solution became the problem: Skilled child minders and crèche services
           intensified the awareness of the needs in the community, but in the same time
           escalated the problem
-          Parents used child care services as a free food facility for hungry children
-          Crèche mothers are reluctant to reject hungry children, but cannot afford to
           provide these services without support from the parents
-          In the *fulfilment* of the higher needs, the basic problem emerged: The need for
           food

Conclusions

It became clear from the project that the important deficiencies should not be addressed without first meeting the most basic needs. Part of the solution to this problem has been to develop a resource centre within the community to support crèche mothers and to provide for the basic needs of its people. The above can be summarised as a house crèche model for the development of child minder services for pre-school children in disadvantaged communities: (see following page)

A House Crèche Model

Select members from the community to be trained as child minders in pre-school house crèches

| Skilled child minder | Skilled child minder | Skilled child minder |

| Starts a house crèche service | Starts a house crèche service | Starts a house crèche service |

New skilled crèche mothers in the community

| Trains other community members as crèche mothers | Trains other community members as crèche mothers | Trains other community members as crèche mothers |

Problems

- Unemployment of parents
- Poverty
- Lack of food
- Lack of suitable space
- Child minders cannot afford to provide these services without the support from the parents

Provisional Solutions

*Parental Involvement
-Training of parents of registered children to make toys from scrap materials available from the resource centre
-Engage parents in small jobs at the
-Engage parents in feeding schemes

*Establish a resource centre for registered house creches in the community
- Distribution of food for house creche svcs
- Books, toys and educational materials available to creche mothers
-Early identification of possible educational problems
-Health services for children, registered with house creches and guidance for parents

*Other support
-Businesses
-Welfare institutions
- The Community

Socio-political and other problems

Two aspects were important:

1. Day mothers had to be provided with food, the distribution of which had to be controlled. The procedure followed was to draw up a registration form which day mothers had to fill in for each child. Operation Hunger was contacted and was prepared to support these day mothers. The distribution of food and making available educational material will be two functions of a resource centre that should be developed in the community.

At this stage, parents and other interested parties can not become involved since there is no resource centre in the community.

2. It was clear from the findings that the development of a resource centre to support day-care mothers in the community is a high priority.

It was difficult to address this problem because of the unstable situation in the residential areas, but mainly because of a lack of facilities. The group's enthusiasm to continue and the need to develop such a facility obliged the trainers to find a solution to the problem.

Once again, the Cape Town College of Education temporarily provided the space to start a distance resource centre. Waste material was collected and trainees were taught needlework. Then materials for preschool day-care centres were created. This was made possible by the Cape Town College of Education which provided sewing machines. A sewing machine was also donated to the centre.

An exceptional stock of materials has already been completed. This situation in particular encouraged the group to such an extent that they come to work here early in the mornings. In the process, further needs and ideas have developed, for instance, establishing gardens and growing vegetables to support day mothers at such a community centre.

The training of trainers

From the group who received certificates after the initial training, a group was selected to be trained as trainers. Some of the criteria for selection were the following:

- 	Creativity during the initial training session,
- 	Ability to take the lead in the group,
- 	Interest in being trained as a trainer,
- 	Availability, and
- 	How successful they were as day mothers.

The procedure was as follows: A small group of prospective crèche mothers was taken from the community and trained under supervision by these aspirant trainers.

Trainers' training program

Training took place once a week in two sessions.

One session focused on the training of the trainers and the other session on the trainee trainers where they train new students from the community as a practical exercise. The training program was structured as follows:

First session

- 	Practical skills training of the trainee trainers (children's needs)

Second session
-         Trainee trainers train trainees (children's needs)
-         Supervision and feedback to trainee trainers
-         Practical skills training of the trainee trainers (children's play and learning/development)

Third session
-         Trainee trainers train trainees (children's play and learning/development)
-         Supervision and feedback to trainee trainers
-         Practical skills training of trainee trainers (stories and learning/development)

Fourth session
-         Trainee trainers train trainees (stories and learning/development)
-         Supervision and feedback to trainee trainers

Fifth session
-         Practical training in needlework and crafts

Sixth session
-         Trainee feedback and consolidation (trainee trainers)
-         Supervision and feedback to trainee trainers (training team)
-         Practical skills training of trainee trainers (music, sound, movement and learning/development)

Seventh session
-         Trainee trainers train trainees (music, sound, movement and learning/development)
-         Supervision and feedback to trainee trainers
-         Practical skills training of trainee trainers

Eighth session
-         Trainees *train trainee trainers* (consolidation)
-         Feedback by trainee trainers
-         Feedback and demonstrations to whole group (training team)

Ninth session
-         Administration and planning (how do I start?): trainee trainers
-         Trainer in the community monitors
-         Consolidation and commitment to preschool day-care service
-         Assignment: Start organising to begin a day-care centre

Note: New trainees were initially asked to compile a workbook for use by day mothers during the course.

Tenth session
-         Feedback and further planning
-         Issuing of certificates

Seven new trainees got their certificates and five students qualified as trainers of community crèche mothers

Concluding perspectives on training:

Twenty trainees began the course. Ultimately, ten trainees qualified for a certificate.

It must be mentioned that the ten trainees who failed to receive certificates did attend most of the course. However, in order to *keep the standards high* the group insisted that these ten should not receive certificates since they had not attended all the sessions and could therefore not be regarded as fully trained.

From the ten who received certificates, five were selected to be trained as trainers. Their training took place in conjunction with the training of the seven new trainees. Two of these seven trainees were among those who failed to receive certificates, but they were eager to repeat the course. The trainees who were trained by the training team met all the requirements and received certificates at the end of the course. A total of seventeen house crèche mothers were trained, of whom five were also trained as trainers.

Present position of the project

The project was launched within the limits of the available funds and in that sense phase one has been successfully completed. The dilemma now is that particular needs and enthusiasm for further development have arisen. Most important is the development of a community resource centre which could serve as an umbrella development centre for day mothers in the community. Some of the day mothers are also very eager to educate parents at such a centre and to make the resource material available to registered day mothers by means of a loan system. Further refining of the workbook that was compiled is necessary before it can be used. Additional funds are urgently required to fully establish the project. Follow-up work will be done in this regard.

REFERENCES

Educare Research Group (1992) *Early childhood Educare,*. Cape Town, South Africa, Oxford University Press/NECC

Myers,R. (1992) *The twelve who survive*: Strengthening programs of early childhood development in the third world. New York: Routledge

ISSUES IN CANADIAN LEGISLATION APPLIED TO STUDENTS WITH SPECIAL NEEDS

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This paper will summarize and discuss the rights available in local, provincial and federal jurisdictions of Canada that support students with handicaps. It will also illustrate how advocacy has influenced placement, program and parental participation throughout the country. The sections of the Canadian Charter of Rights and Freedoms as well as the provincial and territorial Education Acts that affect decisions about handicapped students will be addressed.

In addition to a change in philosophy in Canada, there has been an actual change in the members of special needs population itself. Currently, there are approximately 4,600,000 served in Canadian educational environments, about 400,000 (7.5 percent) of whom have been identified as handicapped (Crealock & Bachor, 1995). Coupled with a fiscal need to rethink the best way to educate this population, the legislative protections of Canadian law have forced all Canadians to address these issues.

This paper will discuss, compare and contrast the rights available to students in different jurisdictions across the country. It will also show how advocacy initiatives have influenced local, provincial and federal legislation. An example of an individual current case that has changed the expectations and interpretations of law, will also be discussed to illustrate the effect of legislation on the education of special needs students.

During the past two decades, there has been an increased awareness of the needs and strengths of students with handicaps, their potential for learning, and accommodations in teaching that will ensure they reach that potential. In 1975, the American Law 94-142 was passed to provide more positive schooling for the handicapped student. In 1980, the Amendment to the Educational Act of Ontario (Bill 82) was passed, which in turn, influenced subsequent provincial and territorial legislation across Canada. The specificity of the law in each province varies from the minimal right for most students to attend school, to the right for full inclusion in the regular classroom. This involves teaching all

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students in regular classes, in their neighbourhood school, through instruction appropriate to their individual needs. The change in this short time period reflects the growing awareness of human rights, the recognition of the diversity of society throughout all countries, and the influence of the Canadian Constitution, especially the Charter of Rights and Freedoms.

There are two sections of the Charter that affect the rights of the exceptional student. These are sections 15 (subsections 1 and 2) and section 7.

Section 15 guarantees basic rights, including the right to education, equality and equality for all students.

Subsection 1 states that:

> *Every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability,* and

Subsection 2 states that:

> *Subsection 1 does not preclude any law, program, or activity that has as its object the amelioration of conditions of disadvantaged individuals or groups including those that are disadvantaged because of race, colour, religion, sex, age or mental or physical disability.*

The Canadian Charter of Rights and Freedoms (1982) can override all provincial legislation. Subsection 1 of Section 15 deals with the right of everyone to equal benefits (i.e., everyone is equal before the law), and Subsection 2, allows affirmative action to help certain disadvantaged groups by giving them unequal treatment. An example of this is the Andrews versus the British Columbia Law Society case where the Supreme Court granted Andrews' petition on the basis that not only was he treated with discrimination (Subsection 1), but also that the treatment had a detrimental effect upon his education (Ray, Garber and Wilson, 1991).

Section 7 states that: *Everyone has the right to life, liberty and security of the person and the right not to be deprived thereof except in accordance with the principles of fundamental justice.* Section 7 has been used with moderate success. For example, in Jones versus the Queen (1987), while discussing s. 7 of the Charter, Mr. Justice La Forest stated that education is vitally important to all our students today; a fact which each government must recognize and does not need specific proof. Furthermore, Barry (1987) stated that *I am of the opinion that a child's right to education is included in the liberty guaranteed to it in s. 7 of the Charter* (p. 338). In addition to the sections of the Canadian Charter of Rights and Freedoms that support the rights of the exceptional student, several other federal ministries support programs and contribute to research. For example, the Ministry of Justice and the Solicitor-General has supported research to promote a better understanding of the learning disabled young offender (Crealock, 1984; Ross and Fabiano, 1983); the Ministry of Indian and Northern Affairs has given grants to support the development of vocational and special education programs in the Northwest Territories and

throughout the provinces (Scaldwell, Frame & Cookson, 1985); the Ministry of Employment and Immigration (1992) has funded special programs; the Ministry of Health and Welfare has participated in cost-sharing programs for seriously handicapped students; the Secretary of State has supported research and the development of teacher training opportunities in special education (LDAC, 1992), as well as having provided continuing research support through the Social Science and Humanities Research Council (SSHRC) and the Natural Science Research Council (NSRC) (Smith, 1994).

At the provincial and territorial level, the legislation that addresses special education is primarily found in The Education Act of each jurisdiction. The essential change over the past decade found in each province is the move from a resource model to a mainstreaming model. Table 1 shows the legislation, the last year when amendments affected special education and the major characteristics that affected mainstreaming. In a major study sponsored by the Office of Research on Educational Policy at McGill University, the Centre for Education, Law and Society of Simon Fraser University, and the Canadian Council for Exceptional Children, each province and territory shared copies of legislation concerning major issues in special education.

Table 1
Summary of Provincial and Territorial Position on Special Education Placement

Province	Legislation	Year	Characteristics	Mainstreaming	
Newfoundland	School Act	1990	mandatory	yes; permissive	zero reject
Nova Scotia	Education Act	1990	mandatory	yes; enabling	zero reject
Prince Edward Is.	PEI School Act	1990	mandatory	yes; enabling	zero reject
New Brunswick	Provincial Schools Act	1992	mandatory	yes; mandatory	
Quebec	Education Act	1992	mandatory	yes; permissive	zero reject
Ontario	Education Amendment Act	1992	mandatory	yes; permissive	
Manitoba	Public Schools Act	1989-90	mandatory	yes; enabling	zero reject
Saskatchewan	Education Act	1990	mandatory	yes; enabling	
Alberta	School Act	1990	permissive	yes; if possible	zero reject
British Columbia	Public Schools Act	1992	permissive	yes; enabling	
N.W. Territories	Education Act	1991	permissive	yes; enabling	zero reject
Yukon	Education Act	1990	mandatory	yes; enabling	zero reject

Sources: Andrews and Lupart (1993); Little (1992); Poirier and Goguen (1986); Smith (1994); Winzer (1990).

The study set forth a framework for the reader to understand the legal rights that students with handicaps can expect to enjoy, a *state of the law* in Canada. It addressed many global questions including access to public schooling, compulsory attendance, identification and placement, appropriate placement, appropriate program and parental participation.

Table 2 shows the frequency of access to public schooling in Canada (ten provinces, two territories).

Table 2
Access to Public Schooling

Issue	Frequency of Response	
	NO	YES
Right to Public Schooling	0	12
Universal Right without Exception	3	9
Lower age limit (5 or 6 years)	0	12
Upper age limit 15-16 yr.	--	2
18 yr to 21 yr.	--	10
Compulsory attendance for all	0	12
General attendance without exception	6	6
Expulsion Permitted	4	8

The theme that addressed access of the exceptional student to schooling involved universal free public schooling, upper and lower age limits, duty to attend school without exception for disability and no expulsion without alternative educational programs. These educational rights are found in the Education Act.

Four jurisdictions (Saskatchewan, the Yukon Territory, Alberta and Ontario) offer full, appropriate provisions for placement options (mainstreaming, least restrictive environment). In each of these jurisdictions, the right to appropriate placement is subject to practicability, that is, the degree to which the placement is workable or feasible.

Appropriate program refers to the right to enhance education for students with handicaps, through free materials, reduced class size and services that match the students needs. Ontario, Quebec, Yukon, British Columbia, Northwest Territories and Saskatchewan provide an appropriate standard of program.

Six jurisdictions (British Columbia (BC), Manitoba (MA), New Brunswick (NB), Ontario (ON), Prince Edward Island (PI), and the Yukon Territory (YU) provide access to public schooling without exception; Alberta (AL) and Newfoundland (NE) provide this right implicitly; and the Northwest Territories (NT), Nova Scotia (NS), Quebec (QC) and Saskatchewan (SA) include an exception that can include students with disabilities.

Table 3 summarizes questions that address appropriate placement and appropriate program.

Table 3:

Frequency of Appropriate Placement and Program

Issue	Frequency of Response	
	NO	YES

Appropriate Placement

Issue	NO	YES
Right to Appropriate Placement	8	4
Right to Regular Class Placement	7	5
Right to Special Class Placement	8	4
Right to Placement out of Board at Public Expense	9	3
Consent Required for Special Placement	10	2
Consent Required for Outside Placement	10	2
Specific Right to Appeal Placement	8	4
Right to Maintain Current Placement Pending Appeal	11	1

Appropriate Program

Issue	NO	YES
Right to Appropriate Education for Disabled	6	6
Right to Free Instructional Materials	4	8
Adaptation of Regular Services for Disabled Required	8	4
Right to Special Education Services for Disabled Required	7	5
Right to Reduced Class Size	11	1
Consent Required for Special Education Services	11	1

Table 4:

Parental Participation

Issue	Frequency of Response	
	NO	YES
Boards Required to have Parents Participate	9	3
Boards Required to provide Participation of Parents of Disabled	10	2
Confidentiality of Student Records Provided for	5	7
Parents have Right to Access Student Records	3	8
Right to Appeal Board Decisions	7	5

In addition to those listed in Table 4, the Learning Disabilities Association of Canada (1993) have argued that parents have *the right to request that an interpreter be available if English (or French) is not the parent's first language* and *the right to have the child present during the hearing and to have the child's views and wishes considered as part of the evidence (in an appeal)* (p. 141). Currently, only Quebec and Saskatchewan provide for the overall participation of parents as a statutory right. In Ontario and British Columbia the formation of parental advisory boards are provided for but not mandated. The only rights that are provided for in the majority of jurisdictions are access to student records and the right to confidentiality. General right to participation is not widely provided for.

In conclusion, this study has provided us with an excellent demographic analysis of the twelve provinces and territories of Canada. Four jurisdictions (Yukon Territory, Ontario, Quebec, and Saskatchewan) have been shown to offer many rights through law for the student with disabilities; Prince Edward Island, Newfoundland, Nova Scotia and Northwest Territories offer the fewest rights. This general ordering of rights, to some extent, corresponds to the fiscal strength of the jurisdictions. The issue of cost has become dominant in all levels of government. For example, the Quebec funding policy has supported the full inclusion placement option (as have many provinces and territories) as being a goal to strive for, but one that is perhaps too expensive. Smith (1992) argues that *any sensible policy designed to implement inclusive education must promote both quality and equality and take all contextual features such as cost and economic restraint into account. In the final analysis, it is a matter of choice; appropriate solutions can be found if we have the will to do so* (p. 71).

Case study to illustrate how the Ontario legislation functions at the present time
Emily Eaton is a ten year old girl who has cerebral palsy. She does not speak, has no alternate mode of communication, some visual impairment, can walk with the aid of a walker but her primary mode of moving is a wheelchair.

Her parents, Carol and Clayton Eaton, have appealed the placement decisions made by the Brant County Board of Education IPRC. They agree with the decision on identification but not on placement. Mr. and Mrs. Eaton are the appellants in this case and the Brant County Board of Education is the respondent, with the Canadian Rights Council, the Ontario Association of Community Living and the Attorney General of Ontario acting as intervenors.

Mr. and Mrs. Eaton contend that segregation in the resource class is a disadvantage for Emily, not the programs delivered. Inclusion into the mainstream is a benefit to Emily and without it she would have fewer opportunities to learn how other students work and live and how she can work with them and they with her. The Eaton's contend that there should be a presumption in favour of inclusion and that it is the responsibility of those who feel otherwise to show why.

History of Emily's Educational Experience

In kindergarten, Emily attended her local public school. She was assessed through the local Identification, Placement and Review Committee (IPRC), was identified as exceptional, and at her parent's request, placed in a grade one class on a trial basis in her neighbourhood school along with her siblings. A full time educational assistant was assigned to her classroom primarily to attend to Emily's needs. This recommendation was to last throughout the grade one year but towards the end of the school year, at the IPRC meeting, the school recommended that she be placed in a special class for handicapped students. The IPRC granted the school's request but the parents objected and appealed to the Special Education Advisory Committee (SEAB). The SEAB upheld the IPRC decision. The Eaton's then asked for leave to appeal this decision to the Ontario Special Education Tribunal; this was granted. While the Tribunal was hearing the case, Emily was allowed to remain in her regular class. However, once the Tribunal supported the original IPRC decision, the parents decided to teach Emily at home for the rest of the year. When the next year began, Emily was enrolled in the Catholic school system in a regular grade three classroom. She continues to attend that school and is now in grade four.

On February 1995, the original decision of the Tribunal was contested with a decision by Judge J.A. Arbour, on the basis of two major issues:

1. that the Tribunal did not specifically show whether the evidence given showed that a segregated class would have been better than a mainstreamed class, and
2. whether accommodations had been offered that would allow Emily to succeed in the mainstreamed class.

In making this decision, Judge Arbour considered Section 1 of the Ontario Human Rights Code (OHRC), and Sections 15, Subsections 1 and 2 of the Canadian Charter of Rights and Freedoms. The history of discrimination against the disabled person is the history of exclusion which the Charter intended to redress and prevent. It is this discrimination that the Eaton's feel that Emily would suffer in a resource class.

This is the first time in Ontario that a Tribunal decision has been put down. The final chapter in this case has yet to be written.

In summary, the development and implementation of individual programs for special needs students in both mainstream and segregated educational situations is the responsibility of all levels of government to varying degrees. The success of such programs, however, still rests with the teachers and students who meet daily in the classroom.

REFERENCES

Andrews, J., & Lupart, J. (1993). *The inclusive classroom*. Toronto, ON: Nelson.

Crealock, C. (1984). *The JD/LD link: Causation or correlation*. Report prepared for the Solicitor-General of Canada.

Crealock, C., & Bachor, D. (1995). *Instructional strategies for students with special needs* (Second Edition). Toronto, ON: Allyn and Bacon.

Learning Disabilities Association of Canada (1993*). *Making the most of the law: Education and the child with disabilities*. Ottawa, Canada: LDAC.

Little, D.M. (1992). The muddle of mainstreaming: Cross-Canada currents - policy and practice of inclusive education. *Exceptionality Education Canada*, **2**(1&2), 9-48.

Poirier, D., & Goguen, L. (1986). The Canadian Charter of Rights and the right to education for exceptional children. *Canadian Journal of Education*, **11,** 231-244.

Ray, W., Garber, M., & Wilson, A. (1991). Placement under Bill 82: A legal analysis. *Education and Law Journal*, **3**(3), 263-284.

Ross, R.R., & Fabiano, E. (1983). *The cognitive model of crime and delinquency prevention and rehabilitation. II. Intervention techniques.* Toronto, ON: Ministry of Correctional Services.

Scaldwell, W.A., Frame, J., & Cookson, D. (1985). Individual intellectual assessment of Chippewa, Muncey, and Oneida children using the WISC-R. *Canadian Journal of School Psychology*, **I**(1).

Smith, W.S. (1994). *Equal educational opportunity for students with disabilities: Legislative action in Canada.* Published through the Office of Research on Educational Policy (OREP), McGill University, Montreal in collaboration with the Centre for Education, Law and Society, Simon Fraser University, and the Canadian Council for Exceptional Children.

Smith, W.S. (1992). The funding of inclusive education: A case study of critical policy issues. *Exceptionality Education Canada*, **2**(1&2), 49-75.

Winzer, M.A. (1990). *Children with exceptionalities: A Canadian perspective.* Toronto, ON:Prentice Hall.

AMERICAN WITH DISABILITIES ACT: EMPOWERING INDIVIDUALS AND FAMILIES OF CHILDREN WITH DISABILITIES

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American with Disabilities Act (ADA) represents the changing philosophy of Americans towards its 43 million citizens with disabilities. A lifelong commitment in preventing discrimination against individuals with disabilities has been ensured through the five titles of ADA in the areas of employment, public services,Public/Private Accommodations, Telecommunications and miscellaneous provisions.

On July 26, 1990, with the statement of *Let the shameful wall of exclusion finally come tumbling down* president George Bush signed into law the American with Disabilities Act (ADA). Senator Tom Harkin added, *With the passage of the ADA, we as a society make a pledge that every child with a disability will have the opportunity to maximize his or her potential to live proud, productive, and prosperous lives in the mainstream of society... The doors are open and the barriers are coming down* (Bush, 1990).

The early treatment of persons with disabilities was segregation and/or total exclusion from U.S. mainstream society. Several factors, including parent advocacy, litigation and research, led the federal government to take the leadership in mandating special education services. The rights of individuals with disabilities were significantly strengthened with the enactment of three federal laws and their periodical amendments. These laws included a) P.L. 93-112, the Rehabilitation Act of 1973 (Section 504 of this law focuses on discrimination issues with regard to people with disabilities), P.L. 94-142, the Education of All Handicapped Children Act of 1975 (currently called the Individuals with Disabilities Education Act) and c) P.L. 98-524, the Carl Perkins Vocational Education Act of 1984. However, in spite of these and other related laws, discrimination against persons with disabilities continued to occur in many areas, including employment, housing, public

accommodations, communication, education, recreation, transportation,institutionalization, health services, access to public services and voting (Dooley Dickey & Satchers, 1991). The ADA seems to be the final chapter in a series of legislative actions that have created a lifelong commitment on the part of Americans to prevent discrimination against 43 million people with disabilities in the United States.

The main purpose of the ADA is to provide for individuals with disabilities a clear and comprehensive national mandate for elimination of discrimination. Under this law an individual with a disability is defined as a person who has a) a mental impairment that substantially limits one or more major life activities, b) has a record of such an impairment, or c) is regarded as having such an impairment.

The American with Disabilities Act is operationalized through five major titles. Title I refers to employment. This title states that no organization or agency, whether public or private, can discriminate against a qualified person with a disability with regard to application procedures, hiring, firing, tenure, promotion or any other conditions or privileges that apply to employment. For example, under this act pre-employment physical examination's are illegal. Post-offer employment physicals may be given only if they are required of all employees (Dooley Dickey & Satchers 1991).

Title II addresses issues related to public services. Under this title no person with a disability can be denied access to programs, services or activities that are open to the public, including activities of state legislatures, courts, town meetings, law enforcement officers, fire departments, motor vehicle licensing, etc. Further, all state and local governments must ensure that individuals with disabilities are not excluded from services, programs, and activities because of building inaccessibility. For example, a city office building would be required to make an exception to a rule prohibiting animals in public areas in order to admit guide dogs and other service animals assisting individuals with disabilities. Public transportation also is covered under this Title. All forms of transportation must be accessible by July, 2010. However, whenever a public transportation agency adds new vehicles or builds new stations, they must be accessible immediately.

Title III focuses on public accommodations and services operated by private entities. Places of public accommodation cover over five million private establishments, including hotels, restaurants, theaters, convention centers, shopping centers, retails stores, dry cleaners, laundromats, pharmacies, doctors offices, hospitals, museums, libraries, parks, zoos, parking lots, amusement parks, private schools, day care centers, health spas, and other similar places. Commercial facilities such as office buildings, factories and warehouses are also covered under this title; however, private clubs, and religious organizations, including places of worship, are exempt.

Title V prevents discrimination by telecommunications companies against persons with hearing impairments. Companies that offer telephone service to the general public must offer telephone relay services to individuals who use telecommunication devices for the deaf, at regular rates, 24 hours a day, seven days a week.

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Currently, all televisions with thirteen inch or bigger screens made in the United States must be equipped with a decoder. In addition, federally-funded public service announcements must be closed captioned so the deaf audience could be able to access the information. Title VI provisions cover additional information concerning various aspects of ADA and their relationships to other laws.

The Americans with Disabilities Act as it stands is the latest and the most comprehensive law covering individuals with disabilities; however, there are some key concepts such as *qualified individuals, essential functions, reasonable accommodation, undue hardship*, and *disabled* that could lead to different interpretations as we are implementing the provisions of the ADA. For example, the employment provisions of the ADA require nondiscrimination against *qualified individuals* with a disability who can perform the *essential functions* of the job with or without *reasonable accommodations*, provided that it would not cause *undue hardship* for the employer. *Qualified* has been interpreted to mean the person meeting the legitimate educational and skills requirements of the position. *Essential functions of the job* has been interpreted as tasks that are fundamental to performing the job. Another key term which needs clarification *is reasonable accommodations*. Under ADA, employers must make reasonable accommodations for a qualified applicant with a disability. Some examples of reasonable accommodations could be the use of assistive technology, devices, modified work schedules, redelegation of assignments, and job restructuring. Another clause that follows reasonable accommodations is *undue hardship*. In other words, *reasonable accommodation* should not cause *undue hardship* for the employer (Golden, 1991). But as the law reads, it is not clear what criteria employers should use to justify undue hardship.

The definition of a Disabled Person under ADA is more far reaching than any other previous laws related to disabilities. For example, under this Act individuals with contagious diseases such as acquired immune deficiency syndrome (AIDS) are protected as long as they do not directly threaten the health or safety of others. It further extends its protection to individuals who are associated with someone with a disability, (e.g., a child could not be excluded from going to school because that childs parent has AIDS. Rothstein, 1995). Even alcoholics could have the protection of ADA if they are qualified and can perform the essential functions of the job. However, current illegal drug users are not covered under this law, but they could have the protection of ADA if they are rehabilitated, and their past record should not be used to discriminate against them. (US Department of Justice & US Equal Employment Opportunity Commission, 1992)

Even though there have been several attempts to clarify the boundaries of the ADA, there are a number of areas that may be further defined through litigation as the employers and employees challenge each other in the courts on their interpretations of concepts such *disabled, qualified individuals, reasonable accommodations,* and *undue hardships*.

Despite potential obstacles, the ADA seems promising for individuals with disabilities in the United States. This law recognizes the resources and humanity of individuals with different

abilities. It seeks equal opportunity for people with disabilities to secure a job, use public and private transportation, enter the workforce, visit a park, or engage in any activity that nondisabled people enjoy.

Access to services would no longer be considered a luxury item for people with disabilities, but instead an essential part of everyday life in America. The ADA, in conjunction with other laws such as the Individuals with Disabilities Education Act, has provided families of children with disabilities a firm ground for equality in all aspects of life, from education to employment, and integration with the social mainstream society.

From a global perspective, it is clear that persons with disabilities are receiving different levels of services and in some parts of the world no services. However, differences in levels of services should not minimize the ripple effect of such laws in the international community, where global interdependence has been recognized by different government more than ever before. International collaboration through sharing of human resources and materials could bring services for all individuals with disabilities from nonexistence to partially existence and ultimately to universal existance.

REFERENCES

Golden, M. (1990). The Americans with Disabilities Act of 1990. *Vocational Rehabilitation*, **20**, 13-20.

Hadadian, A. & DuncanMalone, L. (1994). Rights for America's disabled: Americans with Disabilities Act. *European Journal on Mental Disability*, **1**, 13-17.

Dooley Dickey, K. & Satchers, J. (1991*). A guide to the employment section of the Americans with Disabilities Act 1990.* United States Department of Education: Office of Educational Research and Improvement. Washington D.C.

Bush, G. (1990). Statement of signing Americans with Disabilities Act of 1990. *Administration of George Bush.* 1165-1166.

Bishop, P. & Jones, A. (1993). Implementing the Americans with Disabilities Act of 1990: Assessing the variables of success. *Public Administration Review*, **53**, 121-128.

Rothstein, I. (1995). *Special Education Law.* Longman: New York.

Meers, G. (1992). Getting ready for the next century. *Teaching Exceptional Children*, **55**, 36-39.

U.S. Equal Employment Opportunity Commission and U.S. Department of Justice. *The American with Disabilities Act: Question and Answer*. Washington D.C.: Civil Right Division; 1992.

Linthicum, E. (1990). Employment and the Americans with Disabilities Act of 1990. *Career Development for Exceptional Individuals*, **14**, 1-13.

Thornburg, R. (1991). The Americans with Disabilities Act: What it means to all Americans. *Journal of Intergroup Relations*, **17**, 35-41.

PATHWAYS TO WRITTEN LANGUAGE DEVELOPMENT:
INSIGHTS FROM A DEAF JAMAICAN ADOLESCENT.

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In the ongoing search for effective instructional approaches, the view that learners use diverse pathways in the development of expertise is explored with reference to the use of written language by a deaf 15 year old Jamaican girl. Suggestions for instruction are highlighted.

Although there is an increasing body of literature showing that deaf and hearing children use similar strategies to process written language (e.g., Ewoldt, 1981), many deaf children, including Jamaicans continue to encounter difficulties in the reading and writing of English. Additionally, these difficulties have emerged in the presence of no demonstrable cognitive limitations. While the calls of educators of the deaf to rethink general instructional approaches (e.g., Hall, 1992; Moores, 1991) are positive steps, more specific actions are required. The ideas of developmental and cognitive psychologists (e.g., Keating, 1990; Wertsch, 1985) relating to different pathways in the development of expertise are not only instructive but provide a framework for action. From the perspective of these psychologists, meta-cognitive and socio-cultural factors interact in the development of expertise.

Keating (1990) uses the term *cognitive socilaization* in relation to improvement in instruction and proposes three areas for consideration. Each is relevant here. First, he argues that more attention should be paid to the cognitive activities of students rather than their mental abilities. While acknowledging the difficulties of *capturing cognitive activities* he notes that unlike mental ability indices which focus on product for example, results of achievement tests, cognitive activities reflect both process and product. Therefore, the non-independence of cognitive activities from context and content should always be taken into account. The *how* aspect of the product is therefore as important as the final outcome.

Second, Keating suggests that there is need to replace the non-productive dichotomy between achievement and ability. He does not deny that children display differences between achievement and ability but he thinks that too much emphasis is placed on differences rather than similarities. He points out that domain specific expertise (achievement) and domain

general habits of mind (ability) are developmentally complementary rather than competitive. From this perspective he argues that in the pursuit of expertise all children who do not have intellectual deficits should benefit from appropriate instruction regardless of their cognitive styles. For example, a deaf child who is a competent communicator in sign language may displays difficulty communicating with the written word. However, with appropriate cognitive socialization a facility with the written word is likely to be developed.

Finally, Keating advocates developmental assessment to inform instruction. For him developmental assessment is a cyclical and ongoing process which involves *assessment, instruction, assessment*. The validity of this process is grounded in its effectiveness in guiding instruction. This kind of assessment requires not only an awareness of children's ability when they are working alone with varied instructions and content support but what they are capable of doing with different levels of help from adults. This approach is grounded in Vygotsky's ideas regarding the zone of proximal development or the distance between ability to problem solve independently or with the guidance of an adult as highlighted by Wertsch (1985).

Given the difficulties deaf children have with English, Keating's arguments provide an appealing springboard in the quest to examine and remediate the situation. The relevance of appropriate cognitive socialization in the development of alternative pathways for children with different habits of mind or learning styles is crucial in educating deaf children.

Related to this is the recognition that a child's success or failure in a particular ecological niche for example, a subject area, neither connotes all-round adaptability nor inability to succeed in most areas. In other words, improvement of instruction is required in all possible facets to ensure mastery because segmented or incomplete immersion results in underdevelopment of cognitive abilities. As Bruner (1984) asserts, when children achieve conscious control over a conceptual system, it is then that they are able to use it as a tool. For deaf children, written language is an essential tool and every effort is required to foster its development.

The data in this paper originate from a larger study aimed in part at beginning the dynamic assessment process with Jamaican deaf children with emphasis on using written language for communication. The overall methodology reflects a sensitivity to the use of measures and approaches relevant to developing countries and the framework advocated by Keating (1990). The specific aim of the paper is to explore instructional pathways by highlighting strengths, weakness and content characteristics observed in the process of a deaf adolescent's interactions with written language.

Method

Subject: Pansy (a pseudonym) was a 15 year old female with profound bilateral hearing loss. The cause of her deafness is unknown. Her parents are normally hearing but two of her eight siblings are deaf. Her hearing loss was confirmed at age three and she was enrolled in school for the first time when she was six. This school was a residential primary school for deaf children and located in a rural area. At age twelve she stated attending the only government-aided school for the deaf in Jamaica for the secondary age group.

This school is located in an urban area of Jamaica. It school has a total communication

philosophy that is, the use of multiple modes of communication. However, in reality limited attention is paid to the oral/aural aspect due to the unavailability of equipment. With regard to the manual component, Signed English is dominant in the classrooms but Jamaican Sign language (JSL) is the preferred mode of communication among the deaf children. The JSL is a mixture of Jamaican signs, American Sign Language and Signed English.

Pansy is unaided and her infrequent vocalizations are unintelligible. Her reading level ranged from Grade 2-3. The reading level was determined by sets of Informal Reading Inventories (IRIs) developed to estimate the reading abilities of Jamaican children who are reading below grade level (Jennings, 1989). These children attend two of five different categories of secondary schools in Jamaica. There is evidence showing that among their age cohorts, the children who attend these categories of secondary schools have lower levels of literacy. The IRIs comprised of short passages originated from texts written at different reading levels. Overall, Pansy participated in six different group and individual reading sessions before the reading level range was assigned.

Tasks and Procedures: Pansy completed two writing activities. A letter written in response to a peer seeking penfriends and an essay titled *A day I will always remember*. She also read a story, responded in sign language to eight related questions and retold the story in sign language. She completed another story which utilized the cloze approach. Both stories were written by Jamaican writers and were age appropriate. The reading level of the stories was approximately Grade 3. The setting of the first story is urban Jamaica. The content tells of a boy's effort to obtain a cricket bat so that he could play for his school. The second had a rural setting and highlights an adolescent's activities on a day in Summer.

Pansy participated in an ten minute sign language interview. This was conducted using a mix of Signed English and Jamaican Sign Language but the former was dominant. She completed the writing and cloze tasks in a group activities but the other tasks were done on an individual basis and video-taped.

Analyses were conducted at the Word, Sentence and Text levels for the writing tasks and at the Text level for the sign language and reading tasks. At the Word Level, *Profile in Semantics*'a computer program facilitated the identification of semantic characteristics. The program is based on the work of Crystal and his colleagues (e.g., Crystal, 1987). It is an inventory of lexical fields and all lexemes are either major (content) or minor (function) words. Lexemes are classified into 61 semantic fields and 239 semantic sub-fields. For example *pig* would be classified under the semantic field *animal* and the sub-field *farm*. Type Token Ratios (TTR) are also calculated.

At the Sentence Level, the *Language, Assessment, Remediation and Screening Procedure* another program based on Crystal's work detailed the number of T-units, average length of sentences and the grammatical descriptions. An Error Index (Kelly, 1988) was also used to identify single and multiple structural errors in each T-unit.

For the essay, holistic scores on a scale ranging from *incomprehensible paper* (0.0) to *a superior paper* (6.0) were used. The letter was rated from *no response'*(0.0) *to an appropriate letter'*(4.0). Both measures were adapted from Moores, Thomas, Johnson, Cox, Blennerhassett, Kelly, Sweet and Fields (1987).

With regard to reading, correct responses were scored in the categories, verbatim and syntactically or semantically appropriate within text. Each correct response was given a point and the maximum possible score was 50. This approach was adopted from Kelly and Ewoldt (1984).

Questions relating to the story read were scored as either correct or incorrect. For the story retelling, a Guide adapted from Moores et. al., (1987) rated each proposition in the retold text. Propositions taken into account were categorized as either verbatim, inferences, embellishments or rephrasing. The level of story development was rated in six stages, ranging from *heaps* or statements related to stimulus presented but not linked to one another, to *narrative* or a text in which each incident complements the center (Hedberg & Stoel-Gammon, 1986).

A Sign Language Proficiency Scale (Moores, et al., 1987) was adapted and used to analyse the interview. The scale has five levels ranging from *no practical proficiency* (0) to *full practical and school proficiency* (4).

Results and Discussion

Pansy used 22 semantic fields in her letter as well as 40 sub-fields. For the essay the respective scores were 35 and 48. However, the density of the letter was 174 and the essay was 303 with the total of minor and major lexemes being 112 for the letter and 117 for the essay. The TTR for all letter lexemes was 0.64 and 0.39 for the essay.

Pansy's writing reflects an adequate display of word knowledge and as Olson (1984) states, words represent concepts and these are crucial to learning the structure of written language. Further, there is evidence that she has the perception that the vocabulary for the letter is more restricted that for the essay.

However, when the use of both types of lexemes and the overall density is considered in relationship with the TTR particularly for the essay, inflexibility in word use becomes evident. Jenkins, Matlock and Slocum (1989) point out that real mastery of words reflects use in a variety of contexts. Therefore, word knowledge without appropriate use is inadequate. One possible explanation for this imbalance between word knowledge and word use is the suggestion by Kretschmer and Kretschmer (1990). They argue that the teaching method used in classrooms for deaf children is largely responsible for their inability to use language effectively. For example, a major omission in some classrooms is that the multiple meaning of words is not highlighted.

At the sentence level, the number of T-units written by Pansy in the letter was 22 and 45 in the essay. The Average length of sentences of the T-units in her letter was 7 and the essay was 9. In both writing tasks, Pansy used a majority of simple sentences. There was a dominance of subject-verb-object productions in the essay (21), and the letter was typified by the subject-verb-complement and subject-verb-adverb constructions. The following sentences from her letter illustrate the point:

My name is P.G. I am class in Grade M12. My teachers's name is Miss S.G. She is very very nice. A few compound sentences were produced with the connective *and*. Her preference for simple sentences seemed to have contributed to the relatively small number of multiple

structural errors in her written work.

At the text level Pansy's score was 4 on the essay (a good paper, reflecting a focus on the topic and logically organized). On the letter her score was 3 (most of the crucial information included but some weakness in organization). The scores reflect a better performance on the essay. In her essay she wrote on the day she went with her family to the airport to see a sibling off to New York. Her content included the scenic drive to the airport, events that occurred at the airport and the return trip. Her ideas and feelings were communicated effectively through the use of simple sentences. The mechanical and structural errors present did not detract significantly from the meaning and coherence of her text. The writing style of her letter was similar to the essay.

The dependence on basic sentence patterns suggests that Pansy has not mastered several of the categorical relationship among otherwise familiar words or concepts. Leonard's (1989) views that children who are exposed systematically to other language systems are likely to have problems with English appears to be justified here. Pansy's preferred mode of communication is Jamaican Sign Language and it has syntactic characteristics that are different from English.

In her retelling of the story she scored 51 and this was obtained from 16 T-units. In this task, she highlighted an environmental factor (rain) names of characters, the cost of the bat needed, the stolen bicycle and part of the process of recovering the bicycle. Her retelling was rated 5, which represents one level below a narrative production. Of the nine questions asked, she responded correctly to six. During the retelling she used a mixture of Signed English and JSL.

Pansy demonstrated an ability to read the story in Signed English. However, her inability to retell it at a narrative level, or to respond more correctly to the questions asked indicated inadequate comprehension. Dymock (1993) points out that some good decoders are poor comprehenders and suggests that the language level of the individual is the crucial factor in determining comprehension.

On the cloze task Pansy had a score of 28. Her responses were either verbatim or meaningful in passage and she expressed her preference for this kind of comprehension activity in comparison to the other task. It is of interest that she did not have a single response that was 'meaningful in sentence only'. This suggests that on this task, Pansy attempted to focus on the meaning of the entire text rather than on the sentence level expressions.

An appealing notion that has relevance to Pansy's performance on the reading tasks is given by Milosky (1990) and Sadoski, Goetz and Fritz (1993). They speak of the importance of personal interest in comprehension, highlighting the relationship between interestingness, comprehension and recall. They make the point that the more familiar an individual is with the vocabulary or the topic the more likely comprehension will occur. It is likely that Pansy had more interest in the second story given its rural setting because she is from a rural community. She probably found it easier to relate to those characters than the other story with an urban setting. Furthermore, the ability to manipulate the text in the cloze passage and the availability of context clues for the entire activity may have provided some assistance. In the first task, having read the text she had no access to it during the retelling and answering of questions. In the cloze activity she had more opportunity to monitor her comprehension and probably asked herself some of *the critical questions* (e.g., about general meaning of expressions) La Sasso (1993) considers to be so

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important to understanding text.

She was rated *full practical proficiency and limited school proficiency* on the sign language interview. This score probably reflects the emphasis on Signed English in the interview. Overall, her greatest strength appeared to be her ability to use simple sentences coherently in her expressive communication. Interestingly this strength is also a source of weakness as it becomes an hindrance in terms of understanding text written for her age level.

The pertinent question is how do the results of Pansy's activities relate to the cognitive socialization factors emphasized by Keatring? First, what has been outlined incorporates aspects of each area suggested by Keating (1990). The use of video-tapes for reading activities coupled with discussions of activities completed allow for process analyses. Pansy's performance is not viewed as a problem but as a launch pad, presenting a variety of possibilities. Accordingly, Martin (1993) asserts that it is important to recognize the special knowledge base that deaf learners have in order to build cognitive strategies.

Pansy's relative mastery of basic sentence patterns is an appropriate pathway for instruction. A program aimed at reinforcing that area of strength and an extension to the introduction and development of compound and complex sentences within the context of conversations, reading and writing is likely to be beneficial, given the growing consensus that language nourishes itself (Paul, 1993).

Furthermore, the use of Jamaican Sign Language should be encouraged because it is her preferred mode of communication and she uses it to express ideas that she finds difficult to communicate in English. As Olson (1989) suggests, children need to know that teachers recognize that they can engage in literate and complex thought even if they have difficulty accessing information in print.

A focus on the cloze approach to help Pansy acquire meaning from text is another area for instruction. Within most Jamaican classrooms, the use of *questioning* about the text is the traditional and more popular method used to ascertain meaning. The evidence suggests that the traditional approach is the more exacting pathway for Pansy. Further, it appears that the use of text set in rural Jamaica will at least in the initial stages, be relevant in helping to develop both her declarative and procedural knowledge skills. The underlying issue here is that `multiple assessment' of knowing should be encouraged (Garner & Alexander, 1989).

This approach will also facilitate the dynamic assessment process. For example, any increasing associative relationship between a particular stimulus event and production that fires in the presence of that event will signal and speed up the growth of appropriate skills. The bottom line is the fostering of a process in which better skills are strengthened and poor skills weakened (Royer, Cicero & Carlo, 1993).

Conclusion

Deaf children need to develop more expertise in the domain of written English. The pathways for such development is varied and the range of cognitive socialization experienced by these children is immense. It seems that if we continue to use teaching approaches that are insensitive to diversity, children will become trapped in a *cognitively disadvantaged* frame. In contrast, if we use teaching and assessment methods that will identify specific strengths and weakness and

consequently learning pathways, children will become proficient at some level of written language.

It is acknowledged that students differ and the use of differences to enhance cognitive abilities may be a useful activity. Salvin (1993) argues quite convincingly that we need to understand more about choosing teaching methods that work for all students, and how and when to individualize. However, while agreeing with Salvin's remarks a systematic understanding of the issues might best be addressed in the process of experimenting in classrooms using the differences we can validate.

The views expressed by Biemiller (1993) are worth noting here. He notes with concern that the removal of focus on individual differences because it may be inequitable will lead to the magnification of differences with regard to achievement among other factors. He also suggests that if children are to succeed in school they must become effective users of the written word in situations that are relevant to them.

It is well documented that traditionally deaf children lag behind their hearing peers in the acquisition of written language (e.g., Hall, 1992). While it is desirable to close the gap, it seems that the main objective is to have more deaf children with high levels of literacy expertise.

The identification of alternative pathways deaf children take in the process of acquiring and developing written language is challenging. The use of the knowledge obtained for instruction is an even greater challenge.

REFERENCES

Biemiller, A. (1993). Students differ: So address differences effectively. *Educational Researcher*, **22** (9) 14-15.

Bruner, J. (1984). Language, mind and reading. In H. Goelman; A.Oberg & F. Smith (Eds.) *Awakening to literacy*. (pp.193-200). London: Heinemann Educational Books.

Crystal, D. (1987). *Profiling linguistic disability*. London: Arnold Publishers Limited.

Dymock, S. (1993). Reading but not understanding. *Journal of Reading*, **37** (2) 86-91.

Ewoldt, C. (1981). A psycholinguistic description of selected deaf children reading in sign language. *Reading Research Quarterly*, **17** (1) 58-89.

Hall. W. M. (1992). *Jamaican deaf children: Patterns of written language performance*. Unpublished doctoral dissertation. University of Toronto.

Hedberg, W. C. & Stoel-Gammon, C. (1986). Narrative analysis: Clinical procedures. *Topics in Language Disorders*, **7** (1) 58-69.

Jenkins, J. L., Matlock, B. & Slocum, T. A. (1989). Two approaches to vocabulary instruction: The teaching of individual word meanings and practice in deriving word meaning from context. *Reading Research Quarterly*, **24** (20) 215-235.

Jennings, Z. (1989). Evaluation of the GOJ/OAS high interest reading and language arts project: Phases three and four. Unpublished Report.

Keating, D. P. (1990). Charting pathways to the development of expertise. *Educational Psychologist*, **25** (3 & 4) 243-267.

Kelly, L.P. (1988). Relative automaticity without mastery: The grammatical decision making of deaf students. *Written Communication*, **5** (3) 325-351.

Kelly, L. & Ewoldt, C. (1984). Interpreting non-verbatim cloze responses to evaluate program success and diagnose student needs for reading instruction. *American Annals of the Deaf*, **129** 45-51.

Kretschmer, R. R. & Kretschmer, L. W. (1990). Language. *Volta Review*, **92** (4) 56-71.

LaSasso, C. J. (1993). Reading comprehension of deaf readers. *American Annals of the Deaf*, **138** (5) 435-441.

Leonard, L. B. (1989). Language learnability and specific language impairment in children. *Applied Psycholinguistics*, **10**, 179-201.

Martin, D. S, (1993). Reasoning skills. *American Annals for the Deaf*, **138** (2) 82-86.

Milosky, L. M. (1990). The role of world knowledge in language comprehension and language interview. *Topics in Language Disorders*, **10** (3). 1-13.

Moores, D. (1990). The great debates: Where, how and what to teach deaf children. *American Annals for the Deaf*, **136** (1) 35-37.

Moores, D., Thomas, K., Johnson, K. Cox, P., Blennerhassett, L., Kelly, L., Sweet, C. & Fields L (1987). *Factors predicting literacy skills in deaf adolescents*. D.C: Gallaudet University Research Institute.

Olson, D. (1989). Literate thought. In C. K. Leong & B. Randhawn (Eds.). *Understanding literacy and cognition* (pp.3-15) New York: Plenum Press.

Olson, D. (1984). See! Jump! Some oral language antecedents of literacy. In H. Goelman; Oberg & F. Smith (Eds.). *Awakening to literacy*. (pp.185-192). London: Heinemann Educational Books.

Royer, J. M., Cisero, C. A.& Carlo, M. S. (1993). Techniques and procedures for assessing cognitive skills. *Review of Educational Research*, **63** (2) 201-243.

Salvin, R. E. (1993). Students differ: So what? *Educational Researcher*, **22** (9) 13-14.

Sadoski, M., Goetz, E. T. & Fritz, J. B. (1993). A casual model of sentence recall: Effects of familiarity, concreteness, comprehensibility and interestingness. *Journal of Reading Behaviour*, **5**-15.

Wertsch, J. V. (1985). *Vygotsky and the social formation of mind.* Cambridge: Harvard University Press.

COUNSELLING PARENTS OF CHILDREN WITH EXCEPTIONALITIES:
An Approach Using Behavioural, Cognitive Behavioural,
and Adlerian Therapeutic Techniques and Applications

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The uses of Adlerian, Behavioural, and Cognitive-Behavioural therapies are examined for their applicability to counselling the families of children with exceptionalities. Each approach is discussed in turn, with the specific applicability to family counselling being given emphasis. Behavioural techniques are focused upon first and various techniques, such as systematic desensitization, are explored as adjuncts to other therapies. No specific application to family is discussed since behaviourists do not make special focus on the family. Adlerian techniques are looked at, and strong focus is given here to the uses of family education as a therapeutic technique, and some examples are offered. Finally, Cognitive-Behavioural techniques are discussed, with a special focus on Aaron Beck's and Albert Ellis' therapeutic approaches given special emphasis. A final section is included, in which the implications in general for therapy with families with children with exceptionalities are paid attention. The author concludes by citing the hope that this article will stimulate further reading and exploration on the part of the reader.

How should the parents of children with exceptionalities be counselled? Is psychological intervention necessary? And if intervention generally is necessary, should psychologists limit themselves to the children, as has been the practice in the past, or should the parents and the teachers of the child be included?

These are the questions I seek to address in this paper. I believe that these questions should not, however, be asked in a dry, sterile, academic manner. These are the therapies I believe are best for counselling just about *anybody*, let alone the families of children with

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exceptionalities can be lumped together into three broad categories: behavioural therapy, cognitive behavioural therapy, and Adlerian therapy. These therapies are similar, but are distinct enough to be worth three separate sections.

This paper is constructed as follows: I will first discuss the therapeutic approaches to be used, and I will discuss briefly how each can be applied to families in general. Then I will discuss, in the last section, the application of these therapeutic models to the families of children with exceptionalities.

Therapeutic Approaches

Behaviour Therapy

Behaviour therapy, or behaviour modification as it is sometimes known, has its origins from the empirical work of scientists such as B.F. Skinner, J.B. Watson, and Ivan Pavlov. Joseph Wolpe, the South African psychiatrist who developed behaviour therapy did so because he found the psychoanalytic technique in which he had been trained to be useless. Wolpe sought to develop therapies that could be tested and improved through the scientific method. His pioneering technique of Systematic Desensitization has become the best-known of the behavioural techniques now available (Craighead, Kazdin & Mahoney, 1980; Wilson & O'Leary, 1981; Wolpe, 1969).

Currently, behaviour therapy is one of the most widely used types of therapy in the world. Behaviour therapists believe that behaviour is learned and, therefore, maladaptive and adaptive behaviour are both learned. Obversely, this suggests that maladaptive behaviour can be unlearned, and can be replaced with more adaptive behaviour.

How does learning occur? Essentially, a neutral stimulus is paired with *an unconditioned stimulus*. Thus, food can be associated with red triangles. Upon successive presentations, the subject to whom this odd pairing is given will salivate at the sight of red triangles.

When applying the techniques of behaviour therapy, there are a number available. These include operant conditioning. In this therapy, the desired behaviour is demonstrated. Next, the therapist pairs the desired behaviour with an unconditioned stimulus (money, for example). Then the therapist adds the second (neutral) stimulus, such as muscle relaxation. After several trials (10-20), the reinforcer is slowly removed. In other words, the therapist would give the client a coin of some sort (25c, for example) for every successful muscle group relaxation exercise.

Another technique available is relaxation therapy. This procedure is often used to reduce anxiety, and anxiety-attacks. Here, the client is taught to clench and then relax each muscle group. Each arm, leg, the buttocks, the stomach, the face, the chest, etc. The client is told to feel the relaxation she/he experiences after the muscles are relaxed. The client is taught to do the is by him/herself, to be used in anxiety-provoking situations.

A related therapy is systematic desensitization (Wolpe, 1969). This technique can be used to desensitize someone to their anxiety around a particular stimulus. In terms of the focus of this paper, systematic desensitization could be used to help reduce the anxiety an overly worried parent may have about their disabled (or gifted) child. To use this technique, a hierarchy of fear is established, from least anxiety-provoking to the most anxiety-provoking

approach. The client would relax on a couch. He/she is taught questions which I believe should be answered in a way which attempts to resolve the issues at hand. relaxation therapy (above). The client is brought through each successive stage. As the client masters each level in the hierarchy by showing no anxiety, she/he is moved up to the next level (Craighead, Kazdin, & Mahoney, 1981; Wilson & O'Leary, 1981; Wolpe, 1969).

Other techniques are available, including Biofeedback. This is a therapy in which the client is taught to relax a muscle group in order to make a buzzer-type machine sound. In assertiveness training, in which clients are taught techniques for self-assertion, boundary-setting, etc. (Craighead, Kazdin, & Mahoney, 1981; Wilson & O'Leary, 1981; Wolpe, 1969).

Applications to Families: Obviously, these techniques would not form the major focus of a therapeutic intervention for *any* family, let alone a family of an exceptional child. However, these techniques can be used *in concert with other therapeutic interventions*, because they fit so well with cognitive and Adlerian approaches. They can help to reduce specific anxiety about certain issues which a family member may have (Craighead, Kazdin, & Mahoney, 1981; Harris, 1983; Wilson & O'Leary, 1981).

No special applications to families exist within behaviour therapy. This is because behaviour therapists do not view families as being different than other groups of people. Family therapy, like group therapy, in the realm of behaviour therapy, consists only of treating a number of clients at once instead of singly (Craighead, Kazdin, & Mahoney, 1980; Harris, 1983; Wilson & O'Leary, 1981).

Cognitive Behaviour Therapy

Cognitive behaviour therapy, or cognitive therapy as it is sometimes known, originated from the problems the classical behaviour therapy had in working with certain types of clients. Therapists like Albert Ellis and Aaron Beck wanted techniques that could be used in the course of face-to-face, traditional style therapy. Based on empirical findings of scientists such as Martin Seligman, Edward Tolman, and others, Cognitive behaviourism answered some of the most difficult scientific questions posed by the breakdown of classical behaviourism, and the uprising of the Cognitive revolution of the 1960's posed by Noam Chomsky and Jean Piaget, among others (Davison & Neale, 1986; Goldenberg, 1983; Phares, 1989).

The underlying principles of Cognitivism and Cognitive Behaviourism are that thoughts can act as reinforcers, just like food, water or sex can, or they can act *as secondary reinforcers*, the same way attention and social reinforcement can. Furthermore, thoughts can cause behaviour (and behaviour can lead to a change in thoughts) as below.

Thoughts, beliefs, attitudes ⟶ Behaviour ⟶
⟶ outcomes ⟶
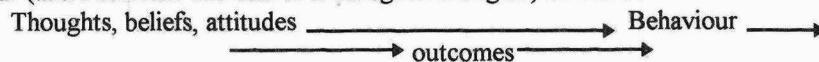
Paralleling behaviour therapy, adaptive and maladaptive thoughts can be learned and unlearned. Thoughts can be replaced with more adaptive thoughts, and thus behaviours (Beck, 1967, 1975, 1976, 1987; Beck & Emery, 1985; Beck, Rush, Shaw, & Emery, 1979; Ellis, 1962, 1989).

Techniques essentially revolve around getting the client to compare his/her beliefs with the world as it actually is. For example, a person says, *I am a failure at school*. The therapist would get the person to bring her or his report cards to the therapist, who then examines them. The therapist may well assume (accurately) that the client is simply wrong. Thus, the therapist would point out, for example, *well, you got two A's last semester! That's not failing*. Were the client to respond, *Yes, but I got two C's*, the therapist could retort, *But Frank, you're ignoring the good stuff you got and are focusing only on the negatives. You* did *get two A's, after all*.

On the other hand, if the client actually *did* fail, the therapist would help the client to examine the beliefs leading to the failure. For example, the client may be thinking to himself, *If I can't be perfect, I won't bother*. The therapist's job is them to challenge the rationality of the belief, and propose an alternate statement like, *I'm going to try really hard, but if I fail, it's not the end of the world*. (Beck, 1967, 1975, 1976, 1987; Beck & Emery, 1986; Beck, Rush, Shaw, & Emery, 1979; Ellis, 1962, 1989).

A similar technique is Meichenbaum's Cognitive Behaviour Modification (Corey, 1991). In this technique, the client does some self-observation between several sessions, and reports back the results to the therapist. The therapist teaches the client a new internal dialogue, and combines this with teaching the client new skills to manage negative thoughts (Corey, 1991; Phares, 1988; Goldenberg, 1983).

Applications to families: Cognitive behaviour therapists do not see the family as a *different* entity, distinct from the individuals within them. The techniques thus used are applied no differently than they would be in group therapy (and groups too are not seen by cognitive therapists as *different* from individuals). When applying these techniques to a family, as to any group, the usual sort of cautions apply. The therapist must be sure that all parties are heard from, and must make sure that all parties are treated equally and fairly (Beck, 1967, 1975, 1976, 1987; Beck & Emery, 1986; Beck, Rush, Shaw, & Emery, 1979; Corey, 1991; Ellis, 1962, 1989; Goldenberg, 1983; Phares, 1988).

Alderian Approaches to Counselling the Family

Alfred Adler's Individual Psychology (Adler, 1958) argued, in similar fashion to the cognitivists, that our beliefs, or what he called *private logic and apperceptions* (Dreikurs-Ferguson, 1984). Adler believed that a person's subjective perception of his/her place in his/her family framed how that person would perceive her/himself and the world around him/her. These subjective impressions Adler called *private logic* (Lundin, 1989), and they form, according to Adler, the basis of how one operates in the world. Emotional problems, accordingly, arise when the person's *private logic* creates ... *a false belief regarding one's own limitations and a mistaken set of ideas about life...* which results in the person *feeling inadequate, and perceiving the world as unjust, unpredictable, or outright malevolent* (Dreikurs-Ferguson, 1984, p. 29).

Therapy, in Adler's view (1958; Dreikurs, 1953, 1973; Dreikurs-Ferguson, 1984; Lundin, 1989; Shulman, 1973) consists firstly of trying to understand the person's perspective, finding out what the mistaken beliefs are, and then re-educating the person by challenging

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the mistaken beliefs the person holds (Adler, 1958; Dreikurs, 1953, 1973; Dreikurs-Ferguson, 1984; Lundin, 1989; Shulman, 1973).

Application to Families: Since education is of such singular importance in Individual Psychology, one approach to educating (or re-educating) parents is the technique of parent education (Dreikurs, 1953, 1973; Dreikurs-Ferguson, 1984; Dinkmeyer & McKay, 1983; Fine, 1980; Shulman, 1973; Lundin, 1989). The benefit of parent education lies primarily in the enhancement of parenting skills and attitudes so that parents can manage better with the skills they have, or so that parents can learn new skills. Parent education can give parents ways of avoiding problems with their children which, if left unchecked, can lead to juvenile delinquency, criminality, or other problems in terms of the kids' behaviour (Davison & Neale, 1987; Gelf and, Jensen, & Drew, 1982). In terms of how well the parent's coping skills are affected, Freid & Holt (1980) state that parent education can reduce the incidence of child abuse.

Interestingly, Adlerians are not the only ones who have parent education programs. There are three types of parent education: Adlerian, behavioural, and reflective. Meadaway (1989) points out that each of the three parent education formats is generally aimed at different problems and population:

... if the goal is to improve parent of child attitudes, then the nonbehavioral programs would appear preferable; if the goal is to improve child behaviour, then the behavioural, and to a lesser extent, Adlerian programs might be chosen; and if the goal is simply to learn how to be a better parent, then any one of the three models might be chosen, depending on the exact nature of what the parent wants to learn, and the child's presenting problems (p. 252)

Parents are by no means perfect; not even the best parents can avoid having some problems with their children. Yet how many truly excellent parents are there out there? Parents, especially those who have an exceptional child, can be sorely taxed in their efforts to raise a family. The goal of Adlerian Parent-Ed groups is to reduce some of the burden so that parents can cope more easily (Dreikurs, 1953, 1973; Dreikurs-Ferguson, 1984; Dinkmeyer & McKay, 1983; Fine, 1980; Medaway, 1989; Shulman, 1973; Lundin, 1989). One example of a parent education program designed specifically for the parents of a child who is gifted or disabled can be found in Weintraub's (1994) unpublished article, A Proposal for a Parent Education Program: Helping Parents Cope with Children who have Behaviour Disorders: Special Focus on Hyperactivity (ADHD).

Counselling the Parents of Exceptional Children

Now that I have described the therapies and how they can be applied to families, it is important to recognize that parents and siblings of exceptional children may have different problems and expectations about themselves, and their children than would parents and siblings of *normal* children. Such problems include increased anxiety about the exceptional children's present and future, overprotectiveness toward the exceptional child, an overly strong focus on the exceptional child by all family members, and, naturally, some

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resentment from the parents and siblings because of the considerable attention the exceptional child accrues (Turnbull & Turnbull, 1990). There is also likely to be a considerable amount of negative self-focus and self-criticism on the part of the exceptional child, especially in families where there is a strong emphasis on high achievement and academic accomplishment (Weintraub, 1993).

Counselling the Families of Exceptional Children:
General Application Issues
A number of issues have to be dealt with by the counsellor since the cognitive-behavioural approach is very much an education-oriented therapy approach. The issues which can be dealt with by a seminar or lecture training format are as follows:
- Helping the family of an exceptional child adjust to the child's new status
- Helping the exceptional child adjust to being a person with *special needs*
- Giving the parents some new coping strategies
- Helping with the child's social adjustment

In so doing, the counsellor would best serve his/her clients by simply talking with them in a class or seminar format, providing information, and answering the families' questions. If there appears to be a need for a parent to have more in-depth contact, the counsellor can provide it on a one-to-one, informal basis (Turnbull & Turnbull, 1990; Davis, 1983; DeLuca & Salemo, 1984; Harris, 1983; Noland, 1971; Webster, 1976).

On the other hand, there are a number of issues where a one-to-one, couples, or family-counselling format would be more appropriate - the more *traditional* forms of counselling. These area include:
- Helping the family adjust to the child's different status, and/or a new program/school;
- Helping the parents deal with their child's:
    - handicap(s) and/or giftedness;
    - social adjustments
    - possible new programs (in the current school);
- Helping the parents explore whether to move the child to a new school;
    - Deciding what is in the child's best interests;
    - Development of friendships for the child;
    - Adjustment to new curriculum (Turnbull & Turnbull, 1990; Davis, 1983; DeLuca & Salermo, 1984; Harris, 1983; Noland, 1971; Webster, 1976; Ziv, 1977).

A number of other areas exist where counsellors must apply their skills. Counsellors are obliged to follow their clients' progress for as long as possible. The reason for this is twofold. Firstly, the counsellor can act as an important information-resource for teachers and other involved professionals. Secondly, follow-up is important to make sure that the decisions made for the student were the right ones to make (Davis, 1983; DeLuca & Salerno, 1984; Goldenberg, 1983; Harris, 1983; Phares, 1989; Turnbull & Turnbull, 1990; Noland, 1971; Webster, 1976).

Follow-up requires that a mixture of further assessment and counselling be used by counsellors so that the maximum amount of information is available. Follow-up consists of the formal and informal assessment of:
- the child's adjustment
- the parents' adjustment
- teacher/school adjustment
- integration into new program or,
- adjustments made in current program (Davis, 1983; DeLuca & Salerno, 1984; Goldenberg, 1983; Harris, 1983; Phares, 1989).

The reader should keep in mind that the section of this paper dealing with counselling is vague on details because the counselling process itself is necessarily "vague". By this I mean that since the counsellor must tailor her or his work to the needs of the individuals involved. Thus, details are difficult to specify. What is more relevant is the general framework within which the counsellor must work (Davis, 1983; DeLuca and Salerno, 1984; Harris, 1983).

Conclusions

I have attempted, in the course of this paper, to cover a very wide ground, and as a result, I am, unfortunately, spread thin. There are a large number of issues to be dealt with in counseling families of exceptional children. Obviously, counselling the families of exceptional children is a challenging, fascinating, and intricate area, as I hope this paper has shown. I hope I have piqued the reader's interest enough to recognize that there are a great many rich *veins* of information that are yet to be mined.

REFERENCES

Adler, A. (1958). *What life should mean to you*. New York: Capricorn.

Beck, A.T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. New York: Harper & Row.

_____ (1987). Cognitive Therapy. In J.K. Zeig (Ed.), *The evolution of psychotherapy*. New York: Brunner/Mazel.

_____. (1975). *Depression: Causes and treatment*. Philadelphia: University of Philadelphia Press.

_____. (1975. *Cognitive therapy and emotional disorders*. Philadelphia: University of Philadelphia Press.

Beck, A.T., & Emergy, G. (1985). *Anxiety disorders and phobias: A cognitive perspective*. New York: Basic Books.

Beck, A.T., Rush, A., Shaw, B., & Emery, G. (1979). *Cognitive theory of depression*. New York: Guilford Press.

Corsini, R.J., & Wedding, D. (Eds.) (1989). *Current psychotherapies (4th ed.)*. Itasca: F.E. Peacock.

Craighead, W.E., Kazdin, A.E., & Mahoney, M.J. (1981). *Behavior Modification: Principles, issues, and applications (2nd ed.)*. Boston: Houghton-Mifflin.

Corey, G. (1991). *Theory and practice of counselling and psychotherapy (4th ed.)*. Pacific Grove: Brooks/Cole.

Davis, H. (1993). *Counselling parents of children with chronic illness or disability*. Leicester: British Psychological Association.

Davison, G.C., & Neale, J.M. (1986). *Abnormal psychology: An experimental-clinical approach (4th ed.)*. New York: John Wiley & Sons.

DeLuca, K.D., & Salerno, S.C. (1984). *Helping professionals connect with families with handicapped children*. Springfield, IL: Thomas.

Dinkmeyer, D., & McKay, G.D. (1983). *Systematic training for effective parenting of teens (STEP/teen)*. Circle Pines, MN: American Guidance Service.

Dreikurs, R. (1953). *Fundamentals of Adlerian Psychology*. Chicago: Alfred Adler Institute.

Dreikurs, R. (1973). *Psychodynamics, psychotherapy, and counselling: The collected papers of Rudolf Dreikurs, M.D.*. Chicago: Alfred Adler Institute.

Dreikurs-Ferguson, E. (1984). *Adlerian theory: An introduction*. Vancouver: Adlerian Psychology Association of British Columbia.

Dreikurs, R., & Soltz, V. (1964). *Children: The challenge*. New York: Duell, Sloan & Pearce.

Ellis, A. (1962). *Reason and emotion in psychotherapy*. New York: Lyle Stuart.

Ellis, A. (1989). Rational Emotive Therapy. In R.J. Corsini & D. Wedding (Eds.), *Current psychotherapies (4th ed.)*. Itasca: F.E. Peacock.

Fine, M.J. (Ed.) (1980). *Handbook on parent education*. Orlando: Academic Press.

Finston, P. (1990). *Parenting plus: Raising children with special health needs*. New York: E.P. Dutton.

Fried, S., & Holt, P. (1980). Parent education: One strategy for the prevention of child abuse (Chapter 11). In Fine, M.J., *Handbook on parent education*. Orlando: Academic Press.

Gelfand, D.M., Jenson, W.R., & Drew, C.J. (1982). *Understanding childhood behavior disorders*. New York: Holt, Rinehart, & Winston.

Goldenberg, H. (1983). *Contemporary clinical psychology (2nd ed.)*. Monterey: Brooks/Cole.

Harris, S.L. (1983). *Families of the developmentally disabled: A guide to behavioral intervention*. New York: Pergammon Press.

Lazuras, A. (1989). *The practice of multimodal therapy*. Baltimore: Johns Hopkins University Press.

Lundin, R.W. (1989). *Alfred Adler's basic concepts and implications*. Muncie, IN: Accelerated Development, Inc.

Medaway, F.J. (1989). Measuring the effectiveness of parent education. In *The second handbook on parent education* Academic Press.

Noland, R.L. (Ed.) (1971). *Counseling parents of the ill and the handicapped.* Springfield, IL: Thomas.

Phares, E.J. (1988). *Clinical Psychology: Concepts, methods, and profession (3rd ed.).* Chicago: The Dorsey Press.

Shulman, B.H. (1973). *Contributions to Individual Psychology: Selected papers by Exceptional Children (2nd ed.).* Columbus, OH: Merrill Publishing.

Turnbull, A.P., & Turnbull, H.R. III (1990*). Families, professionals, and exceptionality: A special partnership (2nd ed.).* New York: Merrill.

Webster, E.J. (Ed.) (1976). *Professional approaches with parents of handicapped children.* Springfield, IL: Thomas.

Weintraub, J.J. (1993). Faking it: A look into the mind of a creative learner by Christopher Lee and Rosemary Jackson. A book review by John Weintraub. *In B.C. Journal of Special Education,* 17(3), 294-296.

Weintraub, J.J. (1994). A Proposal for a Parent Education Program: Helping Parents Cope with Children who have Behaviour Disorders: *Special Focus on Hyperactivity (ADHD).* Unpublished article.

Wilson, G.T., & O'Leary, K.D. (1980). *Principles of behavior therapy.* Englewood Cliffs, N.J.: Prentice-Hall.

Wolpe, J. (1969). *The practice of behavior therapy.* New York: Pergammon Press.

Zeig, J.K. (Ed.). *The evolution of psychotherapy.* New York: Brunner/Mazel.

Ziv, A. (1977). *Counselling the intellectually gifted child.* Toronto, ON: The Governing Council.

ENSURING BEST PRACTICES IN BEHAVIOR INTERVENTION IN THE CLASSROOM: FROM RHETORIC TO ACTION

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The ARC

The aversives *debate appears to be moving toward an uneasy truce. While the sometimes acrimonious tone of this debate might lead one to believe otherwise, there are areas of agreement on which immediate action can be based. Among the areas of consensus is that restrictive interventions must be designed, implemented and monitored by qualified personnel and applied in an effective, least restrictive and safe manner. This discussion suggests that in educational settings in which students with disabilities receive their education, this is not always the case, placing both the student and teachers and administrators at risk. The article proposes a series of standards, based upon best practices in community and residential settings serving people with challenging behaviors.*

The *aversives* debate, which has received a significant amount of attention in the past five years (Durand, 1990; Evans & Meyer, 1990; Gerhardt, Holmes, Alessandri & Goodman, 1991; Horner, et al., 1990; Thompson, 1990; Turnbull & Turnbull, 1990), appears to be moving toward an uneasy truce. This debate has covered much ground, from explorations of the divergent uses of the term *aversive* (O'Brien, 1989; Thompson, 1990), to the ethical dilemma involving issues of human rights and dignity, versus an individual's right to treatment. While the sometimes acrimonious tone of this debate might lead one to believe otherwise, there are areas of agreement on which immediate action can be based.

Among the points of accord is the belief that the use of highly restrictive procedures needs to be regulated to protect individuals with disabilities from their inappropriate or excessive use (Barton, Brulle & Repp, 1983; Horner, et al., 1990; Lovaas & Favell, 1987). There has been a renewed focus on the commitment to a technology of non-aversive or positive behavioral support in recognition of human dignity and worth. As behavioral interventions continue to play an increasingly important role in supporting individuals with excess

behaviors in natural settings, the presence of quality assurance mechanisms becomes even more important.

The response to the need to ensure quality intervention procedures from service providers working primarily with adults experiencing developmental disabilities has been relatively expeditious. Practitioners in residential settings receiving federal support must adhere to specific procedures which are designed to ensure effective program design and implementation. These regulations have resulted in changes in the structure, content and effectiveness of programs for individuals (Egelston, Sluyter, Murie and Hobbs, 1984). These changes include the presence of behavior intervention committees to evaluate intervention structure, human rights committees to safeguard individual rights, and procedures which require the use of effective practices such as functional analyses, rigorous monitoring and data evaluation procedures. The American Council on Services for Persons with Developmental Disabilities (ACDD) has 76 standards for behavioral interventions which facilities must address in order to achieve certification.

There has been progress in educational settings regarding the use of non-aversive supports. In addition to the visibility afforded the topic by scholarly journals, several detailed treatments of positive behavioral interventions are available for use by teacher educators (Donnellan, LaVigna, Negri-Shoultz & Fassbender, 1988; Meyer & Evans, 1989). The movement toward integrated, inclusive schools has resulted in increased attention to positive interventions in the classroom (Casey-Black & Knoblock, 1989; Neel & Billingsley, 1989) and innovative models for supporting students with challenging behaviors in integrated settings have become available (Janney & Meyer, 1990).

Additionally, there is the recognition that some form of oversight is important within school settings. Educators have supported the use of human rights committees to provide oversight in the schools (Brakman, 1985; Singer & Irvin, 1987). Wood and Braaten (1983) outlined the need to develop guidelines for the use of procedures such as time-out, corporal punishment and restraint. Recently, the Minnesota Department of Education implemented specific regulations regarding behavior intervention for students with disabilities which are similar to standards for residential facilities.

Unfortunately, there does not appear to have been any systematic, ongoing attempt to ensure appropriate oversight for most classrooms in America and there are disquieting trends to suggest that the revolution in behavior intervention has, for the most part, not moved into the individual classroom. Scotti, et al. (1991), for example, in a meta-analysis of the literature pertaining to behavior change procedures, found that while 76% of the subjects reported were of preschool or school age, only 37% of the studies occurred in school settings. This percentage included vocational settings in addition to school. The majority of the research (54%) occurred in institutional/clinical settings. Sulzer-Azaroff and Gillat (1990) reported that the number and proportion of papers relating to behavior intervention in education settings appearing in the Journal of Applied Behavior Analysis had declined to such an extent that about twice the number of education related papers were published in the first ten years of the journal than in the second ten.

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Differences in standards between residential settings and school have resulted in situations where students receive widely divergent interventions, in terms of restrictiveness, dependent upon the setting. For example, the author has had experience with a school age student who was receiving monitored, effective positive intervention in her residential setting, while simultaneously receiving highly intrusive (e.g., physical restraint, seclusion) interventions for the same behavior in the classroom monitored only by a paraprofessional. The school based interventions were, by all appearances, largely ineffective. Discussions with schools in other areas of the country suggest that this situation may be an aberration, however there is no documentation to provide evidence one way or another.

Part of the dilemma when applying best practices from residential and vocational settings is that of student versus adult rights and problems differentiating between discipline and behavioral treatment. Corrao and Melton (1990) pointed out that the state has the authority to infringe on the rights of citizens for compelling reasons, *and the safe and healthy upbringing of its citizens has been recognized as compelling* (p. 378). However, these authors pointed out that this does not necessarily abrogate the right to informed consent for treatment or provide carte blanche for schools to implement programs based solely on professional estimates of efficacy. Corrao and Melton (1990) also pointed out that P.L. 94-142 requires fully informed consent and encourages student participation in IEP decisions whenever appropriate. Bartlett (1989) highlights court decisions pertaining to discipline which also indicate that there are limits to the actions schools can take as disciplinary. The reality is that discipline, particularly when applied repeatedly for the same or similar problems, is a treatment and needs to be systematically applied (Wood & Braatan, 1983).

Findings from research studies suggest that there are areas of considerable uneasiness regarding the application of punitive procedures. For example, Rose (1983) surveyed 324 schools from 18 states, receiving information from 232 principals concerning the use of corporal punishment with students with mild disabilities. Fifty-one percent of the respondents reported that corporal punishment was used with all students, and 69 percent of these respondents indicated that they used corporal punishment with special education students. Eighty percent of these principals applied corporal punishment with students having mental retardation. The study makes no reference to the inclusion of these procedures on the IEP, nor does it specify any regulatory or procedural limitations except that the punishment was always witnessed by a second person.

In a replication of this study Rose (1989) provided both an update on this issue and a more detailed examination of specific treatments. In the intervening years there was a 20 percent increase in those principals who indicated that they used corporal punishment with special education students, including increases across all disability categories (LD, BD, MR). However, LD and MR students were more likely to receive corporal punishment than BD students. Additionally, delays between the problematic behavior and the administration of the punishment increased, with 50 percent of the respondents indicating a 20 minute or longer gap between the episode and the punishment. Rose (1989) concluded by pointing

out that, independent of one's position on the use of corporal punishment, the evidence suggests that corporal punishment is not being administered in a manner consistent with research concerning the effective use of punishment. It also appears that students with mental retardation and learning disabilities are particularly vulnerable to being punished in this manner.

Barton, Brulle and Repp (1983) pointed out that corporal punishment represents the most restrictive type of aversive therapy and that such extensive use was reported as recently as 1989 without specific documentation of procedures protecting basic human rights is problematic for both the person receiving the punishment and the person administering it. Other procedures which are construed as aversive or highly intrusive in non-educational setting have frequently been applied in classroom settings. Time-out procedures, for example, are common intervention techniques which, according to Nelson and Rutherford (1983), are among the most easily abused behavior reduction procedures. These authors identified not only the possible detrimental effects of ineffective use of time-out on student behavior, but also pointed to the fact that there are significant legal and administrative concerns to its use.

Reasonable procedures to evaluate interventions are important not only to provide the most acceptable treatment but to protect schools and teachers as well. Singer and Irvin (1987) indicated that issues related to teacher liability and violations of students' rights have surfaced in court actions, education agency rulings and often most detrimentally in the media. Polsgrove (1983) stated that his involvement in a public controversy concerning misapplication of behavior management procedures in one classroom *impressed me with the absolute necessity for providing practitioners with adequate training in behavior management and for communicating to the public how our interventions meet the treatment needs of handicapped youngsters. It is imperative that special educators be continually informed concerning the latest developments in the field* (p. x).

According to a survey of special educators by Izen and Brown (1991), teachers ranked behavior management as among the areas they felt most prepared for during their university training. However, the area that ranked last in the most prepared list *was staying current professionally.* Given the rapid speed at which change in behavior intervention has occurred, it is likely that teachers may not feel confident about their ability to implement best-practices in behavior intervention.

The field is at a critical juncture in the education of students with disabilities. Educators have advocated for meaningful outcomes as determinants of curricular content and view integration, inclusion and productivity for their students as optimal outcomes. The dual system of special and regular education revolving around the pull-out model of segregated classrooms is being questioned by parents and practitioners alike. Children are receiving their education in classrooms with nondisabled peers. And all children, even those with the most challenging behaviors, are being (or should be) served in public education settings with community-oriented outcomes. The hornet's nest that was stirred with the

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aversive/nonaversive debate is beginning to calm and the outcome has been a more humane, and hopefully effective, approach to intervention with problematic behaviors. Durand (1990) suggested that *the aversives debate is over, now the work begins* (p. 140). It is the contention of this article that an initial step in that process should involve a system of oversight and regulation which does not unduly burden school personnel, but provides adequate protection for both the intervener and the student.   This article proposes a process for the evaluation of behavioral interventions in the classroom based upon existing standards in residential facilities.   These standards have been streamlined by using the IEP team as the key element in this process. It is proposed that schools adopt such standards as operating procedures and move toward systemic changes incorporating these standards.

The structure presented is an adaptation of the ACDD standards for behavioral interventions.   Originally consisting of 76 standards, these were culled to provide 46 standards applied to three broad areas: School policies and procedures; Intervention design, and; Intervention implementation. Schools could use these standards as a checklist as they moved toward implementing best practices, in a self-evaluative format.   The following discussion details each of the standards in these areas as well as rationales and provides suggestions for program development and evaluation.

Policies and Procedures

As disagreeable as the thought of additional paperwork may be, written policies and procedures provide a necessary component of effective oversight. Ideally these procedures are derived from progressive policies at the state level.   For example, the Minnesota Department of Education (Section 3525.2925) delineated interventions which are exempted from regulation, those that are regulated (e.g., manual restraint, time-out) and those that are prohibited (e.g., corporal punishment, use of noxious smells, tastes or sprays). The rule requires that local school districts develop a policy that promotes the use of positive approaches, personnel training issues, documentation and evaluation procedures, issues of consent and student and parental involvement (Reich, 1992).

Commitment to Positive Approaches

The policies, shown in Table 1, provide the skeletal frame for monitoring and oversight by placing emphasis on positive approaches and making systematic the use of reinforcement technologies. At a pragmatic level this commitment must include the support and training necessary for interventions applying sophisticated reinforcement schedules, such as differential reinforcement of other behaviors (DRO), of low rates of responding (DRL) or of alternative behaviors (Alt-R) (Donnellan, et al., 1988).   This might include inservice training regarding these techniques, availability of resources to ease data collection, or ongoing consultation from the school psychologist.

In order to comply with the spirit of these standards, the school should structure policies such that the use of reinforcement based technologies is mandated and monitored. The Minnesota Department of Education, for example, required that a minimum of two positive interventions must have been tried and documented prior to consideration of any intervention requiring regulation.

Table 1:Policies and Procedures

1. The school has a commitment, evidenced in written policy and in ongoing activities to emphasize positive approaches and to use positive behavioral interventions.
2. The school has a mechanism for monitoring, for each student, the effective use of positive reinforcers.
3. The school defines and lists techniques that are used and available for use in order of their relative degree of restriction.
4. The school specifies faculty and staff members who may authorize the use of each technique.
5. The school specifies processes for implementing the techniques in a manner. that protects the safety and well-being of a student at all times, including during a fire and other emergencies
6. The school specifies a mechanism for monitoring and controlling the use of each technique.
7. Corporal punishment is not employed.
8. Seclusion is not employed.
9. Aversive interventions which impose techniques which produce physical or psychological pain, humiliation and discomfort are not employed.
10. Behavior intervention programs do not employ techniques that may result in denial of a nutritionally adequate diet.
11. Procedures for managing maladaptive behaviors are not employed in the absence of maladaptive behavior, in retribution, for the convenience of staff or as a consequence of insufficient staff, or in the absence of positive habilitative programming.
12. The school establishes a human rights committee to oversee the use of more restrictive procedures and to monitor the implementation of these programs.

Adherence to Least Restrictive Alternative

A second aspect of the standards for policies and procedures is that the school clearly identifies a hierarchy of techniques or procedures by degree of restrictiveness, who is authorized to use each one, and what mechanisms exist to monitor their use. This hierarchy is based, legally, on the principle of the *Least Restrictive Alternative* (LRA), more familiar to educators in its application to student placement. Turnbull, et al. (1981) described the LRA as deriving from three main concepts drawn from the Fourteenth Amendment's limitation on state powers; the concepts of procedural due process, substantive due process and equal protection. Procedural due process requires that

individuals be provided with a hearing or procedure to determine the necessity of any deprivation of *life, liberty or property*. The doctrine of substantive due process indicates that there are some things the state cannot do independent of the presence of due process. Equal protection guarantees that the state treats groups equitably unless there is compelling reason for doing otherwise.

The constitutional principle of LRA developed, accordingly, as a compromise in circumstances which the government felt compelled to do something, but with respect to Fourteenth Amendment protections (Turnbull, et al., 1981). Essentially, LRA provides the mechanism to accomplish a necessary goal with priority given to doing so in the least restrictive or intrusive manner possible. As was mentioned previously, it is generally accepted that the schools have a compelling reason to place restrictions on minors in the interest of their safe and healthy upbringing, e.g., for purposes of education. This includes the need to provide effective treatment for behaviors which place severe limitations on the student's ability to benefit from this education. At the same time, schools need to do so in a manner consistent with the principle of least restrictive alternative. The clear delineation of a hierarchy of interventions, from least restrictive to most, provides the framework for that recognition.

Several examples of such hierarchies exist. Brakman (1985) described a hierarchical sequence of interventions with three levels of regulation. Level one involved techniques which required IEP team approval only. These interventions were (presented sequentially) extinction, verbal reprimands, response cost/restitution and overcorrection procedures, and classroom time-out. The next level of interventions required specific parental consent in addition to IEP team approval and included brief physical restraint, Mat rest, positive practice overcorrection, and time-out in a vacant classroom or a time-out room. The final level required IEP team approval, specific parental consent and Human Rights Committee approval. These procedures included restraint, the presentation of aversive sensory stimuli and any new or controversial procedures.

As will be addressed below, the regulations proposed in this article do not necessarily adhere to the hierarchy presented by Brakman. There are a number of standards that prohibit specific interventions, such as the presentation of aversive sensory stimuli and place greater regulation on time-out procedures, particularly those involving a specific room. In order to analyze treatment efficacy by intervention intrusiveness, Scotti et al. (1991) developed six categories of procedures ranging from least to most intrusive, restrictive or aversive. Category one involved ecological manipulations (sensory integration, task modification, altering meal proportions, environmental modifications), reinforcement-based procedures (DRO, DRL, Alt-R, token economy without response cost), teaching a replacement skill, modeling, redirection, and unresisted gradual guidance. Category two consisted of extinction, sensory extinction, interruption with brief manual restraint, simple restitution (e.g. apology, make correction), social disapproval and time-out within view. Category three included restitution, positive practice, negative practice, overcorrection, contingent exercise, time-out with removal from view, response cost II

(restriction from activity, token economy with fines), food reinforcement with portions of a regularly scheduled meal.

Categories four through six were categorized as constituting the highest level of intrusiveness. Category four included visual screening, facial screening, required relaxation, Response cost III (temporary delay of meal), and Time-out III (time-out room). Category five involved mechanical restraint (including protective devices), physical restraint, satiation (forced), application of noxious stimuli (water mist, ice, lemon juice), and medication. Category six included interventions involving slapping, pinching, electric shock, Response cost IV (food deprivation), exposure to cold, white noise and noxious chemical stimuli (e.g., ammonia, listerine). Within standards presented here, level six interventions would be specifically prohibited and level four and five interventions either prohibited or stringently monitored. Level one interventions would be subject only to IEP team design issues, while levels two and three would involve IEP team involvement and some monitoring by qualified personnel.

Prohibition of Specific Techniques

As discussed, the standards proposed include the prohibition of corporal punishment, seclusion, aversive interventions which produce physical and psychological pain, humiliation and discomfort (including visual and facial screening and exposure to noxious stimuli), or the use of interventions denying a nutritionally adequate diet. Corporal punishment refers to the application of painful stimuli to the body in an attempt to terminate behavior or as a penalty for behavior, while seclusion refers to the placement of a student alone in a room or other area from which egress is prevented. This does not include placement in a time-out area for a brief, programmed time segment as part of a behavior intervention program meeting all applicable standards.

There are several reasons to advocate for these prohibitions. It is the position of a number of professional and advocacy organizations that the use of procedures that inflict physical pain, result in psychological harm, or cause a loss of dignity is in direct conflict with the right of people with mental retardation to be free from harm and inhibits full participation in society (TASH, The Arc). The Arc position statement on behavior intervention calls for *the elimination of any aversive interventions that withhold essential nutrition and hydration, inflict pain, or impose techniques which produce physical or psychological pain, humiliation or discomfort* (The Arc, 1991, pp. XII).

There are other reasons to prohibit the use of these techniques at a policy level. Proponents of the continued use of more restrictive procedures have argued that the absolute prohibition of aversive technologies *severely limits the availability of treatment options* (Gerhardt et al., 1991, pp. 274), *and may be a violation of the individuals right to effective treatment* (pp. 274). However, proponents specify, the use of such treatment procedures must be restricted to circumstances *when stringent safeguards are firmly in place* (Gerhardt, et al., 1991, pp. 274). Unless these safeguards, which must include additional personnel trained and experienced in behavior interventions (e.g., clinical or behavioral psychologists) and constant oversight by external entities such as human rights

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committees, the school places itself and it's personnel at risk.

Several authors argue that aversive procedures are maintained not because of significantly improved efficacy, but because they are reinforcing to the intervener (LaVigna, Willis & Donnellan, 1989; Wood & Braaten, 1983). Corporal punishment typically leads to an immediate cessation of the offending behavior, providing justification to the person doling out the punishment. Add to this the implication that when punishment is sanctioned by higher authorities, the punisher has reduced sensitivity to the harmful effects of the action on the person punished (see Wood & Braaten, 1983), it seems likely that schools can neither adequately protect students from misuse of aversive techniques nor provide the labor intensive support needed to implement them.

Establishment of Human Rights Committee

The final policy suggestion is the establishment of a human rights committee (HRC) to oversee the use of more restrictive procedures and to monitor their implementation. The use of HRC's in the school is not a new suggestion (Brakman, 1985; Singer & Irvin, 1987), but one that has not been widely adopted. The role of the HRC in the oversight of behavior intervention has not been without debate, with this debate essentially focusing on what this body is qualified to evaluate or approve (Griffith & Henning, 1981; Spreat & Lanzi, 1989). Most agencies providing behavior intervention services have a behavior intervention or peer review committee. It is the responsibility of this group, typically constituted by professionals trained in behavioral services, to evaluate the technical merit of the intervention. As such, an intervention would be reviewed by this body, and revised if necessary, for issues pertaining to clinical appropriateness.

The HRC, according to Griffith and Henning (1981), has the responsibility to ensure that (a) legal informed consent has been obtained, (b) the treatment is consistent with the principal of *least restrictive alternative* where this refers to the use of the intervention which necessitates the least amount of control over or intrusion into an individual's life, and (c) the treatment is generally acceptable to the public at large. Spreat and Lanzi (1989) proposed that HRC's should also ensure that the peer review committee exercised clinical judgement in evaluating the procedures, and that those persons implementing the technique have acceptable credentials.

The majority of the human rights committee members should be recruited from outside the school district itself and, when possible, these individuals should be recruited by someone other than school administrators (Griffith & Henning, 1981). In the interest of integration, members representing the district should come from special and regular education and should include teachers as well as administrators. It is in the best interest of the school to involve all parties impacted by behavior interventions, and as such parents and family members as well as students and adults with disabilities should be represented. Finally, it is important that the committee include representatives from local community and business environments. Members need to receive training in areas pertaining to the rights of individuals with disabilities, philosophical aspects of normalization and inclusion, and best practices in behavior intervention and the education of students with disabilities.

Intervention Design

Standards pertaining to intervention design (listed in Table 2) address five core areas; student and family participation, personnel training and qualifications, programmatic content, preparation activities and the use of highly restrictive or intrusive procedures. Highly restrictive or intrusive procedures are those procedures in the Scotti, et al. (1991) intrusiveness hierarchy consistent with levels four and five which are not expressly prohibited and include required relaxation, response cost III (temporary delay of meal), time-out III (time-out room), mechanical restraint (specifically protective devices such as splints), and satiation (forced). Unlike residential facilities, where the multidisciplinary team and the peer review committee take precedence in this area, the IEP team is the focal point for intervention design in the schools.

Participation by Students and Families

From the onset it is important that students and family members be integral and equal members of the team. The school may need to provide the parent with opportunities to learn of treatment options and to meet with school staff to discuss treatment options. To actually include all members of the team in the design process the intervention should be developed as part of the team meeting, not unilaterally by a professional and then presented as an all or nothing option. It is clear that the teacher or psychologist will take the lead in designing the program and the IEP team may leave the detail work (e.g., schedule of reinforcement, prompt hierarchy, etc.) to the professional. However, the team needs to make programmatic decisions in light of previous interventions, current needs and future directions. For example, the IEP team might decide to add a cost-response component to a token system, then leave the design of that technique to the psychologist.

The decision to implement a restrictive or intrusive program should be more, however, than just a group process. This decision must be based upon documented concerns, made with evidence of unsuccessful attempts using less restrictive procedures, and based upon the shared belief that to allow the behavior to persist unabated would cause severe damage to the student. This decision should be made, as detailed below, with full consideration of the risks of the intervention and with, to the greatest extent possible, the participation of the student.

Programmatic Content

The standards do not attempt to usurp the expertise of the behavior specialist, but instead provide guidelines to direct program design consistent with the doctrine of the least restrictive alternative. Specific program content is dictated only by four standards, three of which augment the previously discussed commitment to positive programming. Each intervention must identify a hierarchy of reinforcers for the student, insure that there is a positive component to each intervention and provide the student instruction as to when the exhibition of the problematic behavior is acceptable.

Table 2: Intervention Designs

13. The treatment is designed with the participation of students served and their families, guardians or advocates.
14. The IEP team includes a psychologist or other professional qualified by training and experience to evaluate published behavior intervention research studies and the technical adequacy of proposed behavior interventions.
15. The IEP process identifies for each student involved in a behavior intervention program a hierarchy of positive reinforcers appropriate to the developmental level, learning needs, emotional needs, and environmental needs of the student.
16. Food proposed for use as primary reinforcement are evaluated by the IEP team in light of the student's nutritional status and needs.
17. The IEP team implements a program of positive reinforcement for each student involved in a behavior intervention program.
18. The treatment plan includes provisions to teach the student the circumstances, if any, under which the behavior can be exhibited adaptively, to teach the student how to channel the behavior in to similar but adaptive expressions or to replace the behavior with a behavior that is adaptive.
19. Prior to design of a behavior intervention, a functional and ecological analysis of the behavior is conducted.
20. Prior to design of a behavioral intervention, data are collected providing the frequency or duration of the behavior and indices of the intensity or severity of the behavior.
21. The IEP team considers both the consequences of the behavior and the current actions taken by others as a consequence of the behavior.
22. The IEP team considers alternatives to interventions based on the functional analysis which involves adaptations to physical and social environments, augmentative or alternative communication systems, adaptive technology, and possible medical causes of behavior.
23. The IEP team considers and documents an potentially harmful effects of intervention procedures and these are weighed carefully against the harmful effects of the problematic behavior.
24. Prior to the implementation of an intervention incorporating the use of a restrictive or intrusive technique, the IEP team documents that legally adequate consent has been obtained.
25. Prior to the implementation of an intervention incorporating the use of a restrictive or intrusive technique, the IEP team verifies that less restrictive methods were attempted and not successful.
26. Prior to the implementation of an intervention incorporating the use of a restrictive or intrusive technique, the intervention has been reviewed and approved by a human rights committee to ensure the student's rights are protected.
27. Each intervention incorporating the use of a highly restrictive or intrusive technique is reviewed by the human rights committee at intervals not to exceed six months.
28. Any behavioral intervention including the use of highly restrictive conditioning must be under the full responsibility of a professional qualified by training and experience. (Full responsibility includes design of program, training of staff, oversight of implementation and monitoring.)
29. Highly restrictive conditioning must be limited to situations in which the professional, the IEP team, including the family, and the human rights committee concur that to allow the persistent and intractable behavior to continue would cause severely damaging harm to the student.
30. Any highly restrictive program is reviewed every four weeks.
31. When a time-out room is used, the student's record documents that the student's behavior is one which is known to respond to the time-out procedure.
32. The IEP team ensures that rooms used as time-out rooms provide physical arrangements for continuous observation of the student to ensure the intervention of staff to prevent injury to the student, are ventilated and well lighted and are free of safety hazards.
33. The IEP team ensures that the ability of a student to exit a time-out room is not prevented by means of key locks, and time-out rooms allow for the immediate entry of staff.
34. Emergency physical restraint procedures are designed and used so as not to cause physical injury to an individual and to minimize physical and psychological discomfort.

Reinforcer selection is too often based on professional and/or parental judgement which is frequently inaccurate. As such, the identification of a hierarchy of reinforcers needs to be based on a systematic method. Several such procedures exist, and are particularly important for students with limited or no verbal abilities. These include measuring approach or withdrawal reactions to multiple reinforcers or multiple presentation procedures where the student selects from several reinforcers and the probability of a given reinforcer being selected calculated. Whatever the means, reinforcer selection should be more than an estimation of others.

The standards also provide that the IEP team evaluate any food proposed as a primary reinforcer. Many students with disabilities receive medication for seizure disorders or may be receiving pharmacological interventions concurrent to behavioral interventions with which there are dietary considerations. For example, lithium is prescribed to treat symptoms of bipolar disorder and, increasingly, is being used adjunctive to treatment for aggressive and self-injurious behaviors (Avila, 1991). For individuals receiving lithium treatment, salt is limited because sodium intake may result in lithium retention and effect lithium blood levels and therapeutic effectiveness (Avila & Sommi, 1991). Consequently, the use of salted food items for reinforcers in this case would be problematic. Not only does the team need to consider this dietary aspect of treatment, but given complex situations, such as medication, the team should include someone knowledgeable about dietary issues.

Other issues weigh into reinforcer selection. Adolescents with developmental disabilities often have difficulty maintaining optimal weight levels (Fox, Hartney, Rotatori & Kurpiers, 1985; Fox, Switzky, Rotatori, & Vitkus, 1982; Goldberg, Van Riper, Barone & Queen, 1992). Likewise, some disabling conditions, such as Prader-Willi Syndrome, require close monitoring of dietary intake. Other health related conditions, such as diabetes, may require dietary management. As such, it is important that the IEP team examine foods used as reinforcers and provide direction for program design and implementation in this area.

Personnel Qualifications and Training

To ensure that the intervention design is based on valid, clinically effective procedures, it is important that the IEP team includes a psychologist or other professional qualified by training and experience to evaluate published behavior intervention research studies and the technical adequacy of proposed behavior interventions. ACDD (1991) suggests that personnel fully qualified to implement behavioral interventions are those *who demonstrate the equivalent of six semester credits of formal, college level training or 140 continuing education contact hours in behavior intervention, as well as at least two years experience in designing, implementing and monitoring behavior intervention programs that have demonstrated a reduction in the problematic behavior.*

Many teacher training programs include six hours of training in applied behavior analysis and certainly most school psychologists have adequate preparation. It cannot be presumed a priori, however, that either the teacher or the diagnostician are qualified to design behavioral interventions for severe behavior problems. As such, the district should identify

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someone who has that expertise to sit on the team and may incur some expense in the process. Nonetheless, it is critical that this component be addressed. Highly restrictive programs (e.g., time-out out of view, time-out III, etc.) must be under the full supervision and responsibility of a professional qualified to do so. This includes program design, staff training, oversight of implementation and monitoring. Specific requirements for use of time-out and restraint procedures are included below

Preparation Activities

Several standards refer to the use of best-practices in evaluating the function of the problematic behavior. Prior to the design of an intervention, there needs to be evidence of a functional analysis of the behavior. A functional analysis or assessment involves the *identification of antecedent and consequent events, temporally contiguous to the behavior which occasion and maintain the behavior* (Lennox and Miltenberger, 1989). The intent is to identify environmental, medical, social and psychological factors which point to the origin, contribute to the exhibition, and maintain the behavior. Guidelines from the ACDD standards suggest that an ecological analysis of the behavior should include; examination of the context in which the behavior occurs, the potential communicative intent of the behavior, past reinforcement histories, factors which precede the behavior in time or setting events which predict the occurrence or nonoccurrence of the behavior, and the social context in which the behavior occurs (e.g., are specific persons contributing to the probability that the behavior will be exhibited). Other researchers have supported similar motivational assessments (Demchak & Halle, 1985).

Functional analyses must take into account the role of pain or frustration in the exhibition of the behavior. The central role of communication in mediating problematic behaviors has been well documented in recent years (Bird, Dores, Moniz & Robinson, 1989; Carr & Durand, 1985). Reduction of severely disruptive behaviors such as stereotypical or aggressive behaviors may be accomplished through the development of augmentative or alternative communication procedures and their systematic instruction and reinforcement. Likewise, readily achievable environmental modifications may be suggested by a thorough functional analysis. Scotti, et al. (1991) identified the use of functional assessments as one of few factors in intervention design which was related to measures of treatment efficacy.

The functional analysis of problem behaviors can be accomplished by a variety of procedures ranging from simple interviews to more systematic analogue assessments (Iwata, Dorsey, Slifer, Bauman & Richman, 1982; Wehmeyer, Bourland and Ingram, 1993). Lennox and Miltenberger (1989) reviewed methods for conducting functional assessments and identified three primary categories; Informant, direct observation and experimental assessments. The first category involved easily replicated techniques such as interviews, ratings or questionnaires designed to elicit information from the student or individual, his or her family or housemates and professional staff who work closely with the student. Frequently, however this level of assessment is the sole source of information and suffers from similar problems to those encountered when relying solely upon informants for reinforcer information.

An alternative to teacher designed rating scales or questionnaires is the use of commercially available motivation assessment tools. For example, Durand and Crimmins (1988) described the Motivation Assessment Scale (MAS), designed to assess the motivation of problem behaviors using an interview format where care providers rate the relative severity of a given problem along a seven point likert-scale. The MAS has sixteen questions, yielding scores in four areas (sensory, escape, attention, tangible) which provide indications of variables which may be maintaining the behavior.

The second methodological category for functional assessments is the use of direct observations. These are more sophisticated and, subsequently, more reliable estimates. Lennox and Miltenberger (1989) identified several procedures used by researchers which could be implemented by the teacher in the classroom. One is a scatterplot assessment, where the occurrence of each behavior is plotted on a graph indicting time of day for consecutive days. This provides the intervener with a picture of the exhibition of the behavior and may provide clues to motivational variables. For example, if the behavioral occurrences cluster around traditional meal times, one might examine diet or food related variables as contributory to the problem.

Teachers might also use procedures common in observational research to identify motivational factors. These include longhand records of student activities from which salient variables could be isolated and subjected to more systematic examination using, for example, repeated time samples. Video taping problem times can provide opportunities for teachers to examine situations during which he or she cannot record data. Additionally, teachers should rely on others to provide observational data, including paraprofessionals or psychologists.

Thirdly, Lennox and Miltenberger (1989) described the use of experimental analyses to determine pertinent variables. This may be more readily accomplished by the school psychologist given the amount of time necessary to design and conduct such activities. Nonetheless, for behaviors which may be well established and maintained by multiple variables, there may be no other way to determine this information. Much as in any experiment, this form of analysis varies certain factors while controlling for others. Wehmeyer, Bourland and Ingram (1993) used an analogue assessment, based on Iwata, et al. (1982), where individuals with stereotypical hand movements were videotaped in four analogous settings, with the amount and type of interaction varied. This analysis made it possible to partition environmental variables, such as escape and attention seeking motivations, from neurologically-induced actions. Durand and Carr (1987) used a reversal design where they repeatedly exposed students to easy or difficult tasks in low or high attention settings in order to identify variables maintaining stereotyped behaviors.

The outcome of any functional analysis will be qualitative and quantitative data regarding the behavior and factors related to its exhibition. It is critical that prior to design of a behavioral intervention, data are collected providing the frequency or duration of the behavior and indices of the intensity or severity of the behavior. Based on these data the IEP team can consider any potentially harmful effects of intervention procedures and weigh these carefully against the harmful effects of the problematic behavior.

The standards also suggest that prior to the implementation of an intervention incorporating the use of a highly restrictive or intrusive technique, the IEP team documents that legally adequate consent has been obtained, that less restrictive methods were attempted and not successful and that the intervention has been reviewed and approved by a human rights committee to ensure the student's rights are protected. As has been indicated before, the Minnesota Department of Education requires documentation that two previous positive interventions have been unsuccessful prior to implementing more restrictive procedures.

The hierarchy of interventions outlined by Brakman (1985) included three levels of consent or approval where parental consent was introduced only with level five interventions (Physical restraint, positive practice overcorrection, time-out in a vacant classroom or a time-out room). However, the IEP team was to sign off on all interventions. To the extent that family members should be integral parts of the IEP process, it may well be that parental consent will be obtained for all levels of intervention. It seems judicious, however, that for more restrictive procedures, including time-out away from view, forced satiation or time-out III procedures, separate parental consent be obtained. Blanket consent to treatment is not consistent with the doctrine of informed consent, and specific procedures should be detailed in the consent form.

Not addressed by Brakman was the issue of student consent and approval. Students need to be involved in the treatment process for a variety of reasons. Wehmeyer (1992) has argued that if students are to be effective members of their community upon graduation, schools have to prepare them to be self-determining. Involvement in their IEP meeting is one critical aspect of this process. However, student consent to treatment is not only an indicator of student self-determination, it is a variable associated with treatment efficacy. Adelman, Kaser-Boyd and Taylor (1984) found a positive relationship between children's participation in consent for treatment and treatment adjustment and outcomes. These authors concluded that participation in the consent process led to a stronger commitment to the treatment and, consequently, to more positive outcomes.

It is unrealistic to expect all students to cooperate with the IEP team, particularly when the treatment limits that student's liberty or freedom. In such circumstances parental consent should become the central focus of informed consent. A second difficulty faced by practitioners is the ability of students to provide informed consent. The ability of students with more significant disabilities to express preferences and participate in decision-making processes is often overlooked with families and professionals assuming responsibility for all decisions. This is usually based on estimates that the student cannot make effective or appropriate decisions, introducing the baggage of whose values determine what is appropriate or effective.

These estimations may simply be the manifestation of a self-fulfilling prophecy where students who are never provided opportunities to make choices and decisions do not develop the skills and abilities essential to this process. The ability to provide informed consent should be based on more than opinion. There are adaptations which could enable a

student to contribute to this process, much as the doctrine of partial participation has involved many students as participants in their daily activities. Rarely are students devoid of opinions or preferences. The problem is that these opinions are usually ignored or perceived as problematic. Guess, Benson and Siegel-Causey (1985) argued that, for students with severe disabilities, behaviors indicative of personal preferences were too frequently labeled as avoidance behaviors and subjected to treatment instead of taken into account as a preference. Houghton, Bronicki and Guess (1987) found that classroom personnel responded at very low rates to student-initiated expressions of preference or choice during the school day.

Genuine efforts to involve students should include attempts to overcome communicative barriers to participation and involvement in reinforcer determination. Students can be involved in selecting from proposed reinforcer schedules and tokens to be used as well as other programmatic components. Instead of evaluations of competency to make decisions based solely on clinical judgement, more systematic evaluations could be employed. Lindsey and Luckasson (1991) described the Consent Screening Interview (CSI) which has been used to assess the abilities of adults with developmental disabilities to give direct consent for community placement. This is an interview-based tool resulting in data in three areas; information, voluntariness and capacity. The CSI provides information about interviewees' perceptions of themselves, their feelings about the intrusiveness of the proposed move and their ability and opportunity to make daily life choices. While designed for adults and specific to residential decisions it is likely that with adaptations such an assessment would be useful for school settings as well.

Use of Highly Restrictive or Intrusive Procedures

Because these procedures represent the highest levels of restriction allowed under the proposed standards, their implementation must be accompanied by specific procedures for both design and implementation. Most of these standards address the specific use of restraint and time-out with a separate room. To ensure the ongoing protection of the student, each intervention incorporating the use of highly restrictive or intrusive technique is reviewed by the human rights committee at intervals not to exceed six months, and as mentioned previously, must be limited to situations in which the professional, the IEP team, including the family, and the human rights committee concur that to allow the persistent and intractable behavior to continue would cause severely damaging harm to the student.

As mentioned previously, time-out procedures incorporating seclusion (the placement of a student alone in a room or other area from which egress is prevented) are prohibited, but the use of time-out procedures are not. However, use of a time-out room requires that the student's record documents that the behavior is one which is known to respond to the time-out procedure. The classic example of this is the use of time-out procedures for behaviors which appear to be intrinsically reinforcing, such as stereotypical and self-injurious behaviors. Such behaviors would increase in solitary conditions and as such time-out is an inappropriate intervention.

To ensure student safety, time-out rooms must provide physical arrangements (such as a

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two-way mirror) which allow continuous observation of the student so that staff can intervene to prevent injury to the student. Time-out rooms must be ventilated and well lighted and free of safety hazards. The student's ability to exit a time-out room must not be prevented by means of key locks and time-out rooms must allow for the immediate entry of staff. These standards take into account student safety in case of an emergency, such as a fire, and ensure that students are not placed in time-out and left unmonitored.

A second area of concern is the use of physical restraints. It is sometimes necessary to physically intervene to stop a problematic behavior for the sake of others (e.g., physical aggression, destructive behaviors) or for the sake of the student exhibiting the behavior (e.g., self-injurious behaviors). As the use of emergency physical restraint constitutes a risk of injury to the student, physical restraint procedures must be designed and used so as not to cause physical injury to a student and to minimize physical and psychological discomfort. There are a number of acceptable training programs for the use of physical restraints and teachers or psychologists using such procedures need to be trained to do so appropriately.

Another type of restraint involves mechanical restraint, such as the use of splints or mechanical devices which limit mobility and prohibit the wearer from engaging in a problematic behavior, like finger sucking. The IEP team should specify the extent and frequency of monitoring according to the type and design of the device and the condition of the student and the period of restraint. Programmatic staff should provide regular checks for skin and tissue integrity and allow release from the device as described below.

Implementation

The third broad area of standards involves the implementation of the program (see Table 3). Even the best intervention, based on progressive policies and effective design procedures, is only as good as the people who are implementing the intervention and the environment in which it is implemented. The implementation standards address three critical areas of implementation effectiveness; the personnel implementing the program, evaluation of the effectiveness of the intervention and the use of highly restrictive techniques.

Personnel Implementing Behavior Interventions

Once a program is designed, it is critical that the person or persons implementing the program, typically classroom teachers and paraprofessionals, be adequately prepared and supported. Teacher preparation must occur on two levels, a philosophical level and a pragmatic level. Teachers and others who will implement behavior intervention procedures must be trained in ethical principles related to modifying the behavior of students and in basic techniques of positive behavior intervention. The ethical principles referred to here include principles of normalization, values relating to human dignity and worth, and the possibility of the misuse of interventions. Assumably these principles overlap with principles of integration and inclusion and community integration and should be an integral part of each district's philosophy.

Table 3
Implementation

35. Prior to use of behavior intervention technique, persons who will implement behavior intervention procedures have been trained in ethical principles related to modifying the behavior of students and in basic techniques of positive behavior intervention.
36. Prior to use of behavior intervention technique, persons who will implement behavior intervention procedures have been trained in the actual implementation of procedures specified within the intervention program.
37. Each intervention includes methods for implementing the treatment procedures both in frequently used environments and by several interveners, including, if appropriate, family members in order to promote generalization of effects.
38. Each intervention includes a systematic method for collecting data regarding the effectiveness of the intervention.
39. Each intervention includes periodic summary of these data to provide formative analysis of the effectiveness of the intervention.
40. Data on the problematic behavior are collected during periodic follow-up observations after intervention is discontinued to ensure generalization.
41. When a time-out room is used, the student's record documents that the student was removed from a positively reinforcing environment or activity.
42. When a time-out room is used, the student's record documents that the procedures of the IEP to shape incompatible or adaptive behaviors were being followed by persons assigned responsibility for them.
43. When a time-out room is used, the student's record documents that the procedure is rapidly reducing the behavior addressed and that the amount of time the procedure is implemented is systematically reduced.
44. When a time-out room is used, the student's record documents that safe transporting techniques were used in the implementation of the student's program.
45. Only the minimum amount of restraint necessary to control the student's behavior is used during the implementation of a restraint program.
46. Physical restraint is used only until the student is calm.

In that these broader issues should be areas of ongoing instruction and growth for educators, training will probably occur in numerous ways over several years, including conferences, inservice presentations and membership in professional organizations. Equally important, however, is a thorough understanding of the specific behavior program. This should be facilitated by the fact that the intervener was involved in the design of the program. Nonetheless, teachers need the support of psychologists or others trained in the details of applied behavior analysis. Given that in many classroom the paraprofessional

undertakes many of the instructional activities and will undoubtedly be involved in the intervention, he or she should receive specific, detailed instruction regarding the implementation of the program.

In order to insure generalization and transfer, it is important to implement interventions in multiple environments and across multiple interveners. While this may occur as a later stage in the intervention, it is important that the intervention includes methods for implementing the treatment procedures both in frequently used environments and by several interveners, including, if appropriate, family members. If behaviors are specific to a given environment, such as the home, instruction needs to occur in that environment to the maximum extent possible.

Evaluation of Treatment Efficacy

The ongoing, systematic evaluation of treatment effectiveness must involve well designed data collection procedures. Data collection will vary according to the nature of the problem and the pragmatic constraints on the intervener. Behaviors such as some sterotypical movements which occur literally nonstop or hundreds of times per hour do not lend themselves to frequency counts. Nor does behavior which occurs only once per month but is very serious in nature. Again, psychologists can be valuable resources for teachers to design data collection procedures which do not severely tax the intervener but are reliable indicators of the behavior.

The data should be reviewed and summarized periodically to provide formative analyses of the effectiveness of the intervention. In consultation with appropriate persons the treatment can be fine tuned if the intervener or evaluator identifies some aspect which might be more effective. This might involve changing reinforcement intervals or altering token delivery. Much of this can and should under the control of the teacher or psychologist and not require program reevaluation. Data should be collected from all environments in which the intervention is implemented. This may provide the opportunity to use a procedure which can attest to the validity of the intervention, such as a multiple-baseline procedure where data is collected on the behavior in each of several environments with the intervention implemented at staggered intervals. Also, when the treatment is discontinued, data on the problematic behavior should be collected during periodic follow-up observations to ensure generalization.

Implementation of Highly Restrictive Procedures

As before, these procedures refer primarily to the use of time-out and restraint procedures. When a time-out room is used, it is important that the intervener insure that the student was removed from a positively reinforcing environment or activity. While some subject matter may be perceived by students to be less than reinforcing, the key component here is not that the student be enamored with math or English, but instead that he or she not use the time-out procedure to escape nonreinforcing environments. Frankly, for some students sitting alone in a time-out room is preferable to subject work! Classroom environments need to be reinforcing, through praise and attention and procedures that build intrinsic motivation, by allowing student choice and self-determination and through individualized

programming. Likewise, time-out procedures must not be employed in the absence of positive programming and the intervener must make sure that the procedures of the IEP to shape incompatible or adaptive behaviors were being followed by persons assigned responsibility for them. It may well be that these procedures need beefing up.

As part of the ongoing evaluation, time-out rooms must be shown to rapidly reduce the behavior addressed and that the amount of time the procedure is implemented is systematically reduced. As was previously mentioned, time-out is one of the most easily misused procedures, and it is far too easy to leave children exhibiting problem behaviors in time-out because the peace is rewarding to the teacher, the paraprofessional and the rest of the class. If this is the case, the intervention needs to be redesigned to more effectively serve the student and the teacher.

A critical problem in using time-out procedures is one of transporting the student to the time-out area. This process can often be very physical, create opportunities for additional problems such as aggression, provide attention to the student, and place all parties at risk for injury. Again, there are numerous training procedures addressing transporting issues, and personnel implementing a time-out program need to be fully trained to do so effectively and safely.

When mechanical restraint devices such as splints are applied they must be inspected prior to each use to ensure that they remain in good repair and free from tears or protrusions that may cause injury. This includes straps and clasps which become easily disengaged and could result in injury. It is important that only those specific devices identical to those identified in the IEP are used to restrain the student. Splints and other restraint devices have a tendency to need frequent repair and under no circumstances should a substitute device be applied.

Summary

This article has proposed a set of standards which could be used by school districts to implement best practices in behavior interventions. These standards are not meant to be exhaustive, but instead to provide guidelines for ensuring safe, effective habilitation procedures. While standards have had positive effects in other service delivery areas, there are limitations and problems associated with them. Perhaps the most visible problem is that these standards become the focal point for service delivery instead of simply a process for achieving more desirable outcomes. As a result, paperwork begets paperwork and much energy is expended documenting that one did what one said one was going to do! It is not the intent of this article to provide cumbersome regulations that lead to increased paperwork independent of progress and change. However, to dismiss the need for regulation as simply more paperwork seems irresponsible and dangerous. The use of highly restrictive procedures must be carefully controlled and monitored, not because of implied or theoretical problems, but because misuse does occur, placing all involved at risk.

It is suggested that the standards be used in a checklist manner, with school personnel examining each standard and deciding whether or not existing procedures meet the intent of the standard. ACDD requires that agencies meet a total of 70 percent of the total

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standards to receive accreditation.   As such, schools might consider acceptable performances to be in the ranges above 70 percent compliance.. Nonetheless, there is no reason that the overall outcome for applying best practices be complete compliance with the standards.   Instead of spending time and money on exhaustive documentation, the primary intent of which is usually to cover one's backside, schools can use existing structures, such as the IEP team, as the core of the process.

The Individuals with Disabilities Education Act (IDEA) is based, we believe, on principles of least restrictive alternatives and integration.   In order to provide all students with the opportunity to an appropriate education, schools must provide effective, acceptable interventions for student behavior problems.   In the past this was accomplished by contracting with smaller agencies who survived by accepting students with problem behaviors or by pulling students out of the mainstream and placing them in highly restrictive settings. Neither of these options are appropriate any longer. We suggest that by turning to the principles and procedures endorsed in these standards, schools can provide an option that is appropriate for their students with challenging behaviors.

REFERENCES

Adelman, H.S., Kaser-Boyd, N. & Taylor, L. (1984).   Children's participation in consent for psychotherapy and their subsequent response to treatment. *Journal of Clinical Child Psychology*, **13**, 170 - 178.

Avila, J.A. (1991).   Lithium in the management of behavior disorders in persons with developmental disabilities. *Dialogue on Drugs, Behavior and Developmental Disabilities,* **3**(3), 1 - 3.

Avila, J.A. & Sommi, R.W. (1991). Lithium basics. *Dialogue on Drugs, Behavior and Developmental Disabilities,* **3**(3), 3 - 5.

Bartlett, L. (1989). Disciplining handicapped students: Legal issues in light of Hoenig v. Doe. *Exceptional Children*, **55**, 357 - 366.

Barton, L.E., Brulle, A.R. & Repp, A.C. (1983). Aversive techniques and the doctrine of least restrictive alternatives. *Exceptional Education Quarterly*, **3**(4), 1 - 8.

Bird, F., Dores, P.A., Moniz, D. & Robinson, J. (1989). Reducing severe aggressive and self-injurious behaviors with functional communication training.   *American Journal on Mental Retardation*, **94**, 37 - 48.

Brakman, C. (1985).   A human rights committee in a public school for severely and profoundly retarded students. *Education and Training in Mental Retardation*,**20**,139-146.

Carr, E.G. & Durand, V.M. (1985).   Reducing behavior problems through functional communication training. *The Journal of Applied Behavior Analysis*, **18**, 111 - 126.

Carrao, J. & Melton, G.B. (1990). Legal issues in school-based behavior therapy. In J.C. Will, S.N. Elliot, & F.M. Gresham (Eds), *Handbook of behavior therapy in education.* New York: Plenum Press.

Casey-Black, J. & Knoblock, P. (1989). Integrating students with challenging behaviors. In R. Gaylord-Ross (Ed.), *Integration strategies for students with handicaps*. Baltimore: Paul H. Brookes.

Demchak, M.A. & Halle, J.W. (1985). Motivational assessment: A potential means of enhancing treatment success of self-injurious individuals. *Education and Training of the Mentally Retarded*, **20**, 25 - 38.

Donnellan, A.M., LaVigna, G.W., Negri-Shoultz, N. & Fassbender, L.L. (1988). *Progress without punishment: Effective approaches for learners with behavior problems*. New York: Teachers College.

Durand, M.V. (1990). The *aversives* debate is over: And now the work begins. The *Journal of the Association for Persons with Severe Handicaps*, **15**, 140 - 141.

Durand, M.V. & Carr, E.G. (1987). Social influences on *self-stimulatory* behavior: Analysis and treatment application. *Journal of Applied Behavior Analysis*, **20**, 119 - 132.

Durand, M.V. & Crimmins, D.B. (1988). Identifying the variables maintaining self-injurious behavior. *Journal of Autism and Developmental Disorders*, **18**, 99 - 117.

Evans, I.M. & Meyer, L.H. (1990). Toward a science in support of meaningful outcomes: A response to Horner et al. *The Journal of the Association for Persons with Severe Handicaps*, **15**, 133 - 135.

Fox, R.A., Hartney, C.W., Rotatori, A.F. & Kurpiers, E.M. (1985). Incidence of obesity among retarded children. *Education and Training of the Mentally Retarded*, **20**, 175 - 181.

Fox, R., Switzky, H., Rotatori, A.F. & Vitkus, P. (1982). Successful weight loss techniques with mentally retarded children and youth. *Exceptional Children*, **49**, 238 - 244.

Gerhardt, P., Holmes, D.L., Alessandri, M. & Goodman, M. (1991). Social policy on the use of aversive interventions: Empirical, ethical and legal considerations. *Journal of Autism and Developmental Disorders*, **21**, 265 - 277.

Goldberg, D.L., Van Riper, C.L., Barone, V. & Queen, M.A. (1992). Teens with disability need to manage weight. *Connections: The Newsletter of the National Center for Youth with Disabilities*, **2**(3), 1 - 4.

Griffith, R.G. & Henning, D.B. (1981). What is a human rights committee? *Mental Retardation*, **19**, 61 - 63.

Guess, D., Benson, H.A. & Siegel-Causey, E. (1985). Concepts and issues related to choice-making and autonomy among persons with severe disabilities. *Journal of the Association for Persons with Severe Handicaps*, **10**, 79 - 86.

Horner, R.H., Dunlap, G., Koegel, R.L., Carr, E.G., Sailor, W., Anderson, J., Albin, R.W. & O'Neill, R.E. (1990). Toward a technology of *nonaversive* behavioral support. The *Journal of the Association for Persons with Severe Handicaps*, **15**, 125 - 132.

Houghton, J., Bronicki, G.J.B. & Guess, D. (1987). Opportunities to express preferences and make choices among students with severe disabilities in classroom settings. *Journal of the Association for Persons with Severe Handicaps*, **12,** 18 - 27.

Iwata, B.A., Dorsey, M.F., Slifer, K.J., Bauman, K.E. & Richman, C.S. (1982). Toward a functional analysis of self-injury. *Analysis and Intervention in Developmental Disabilities*, **2**, 3 - 21.

Izen, C.L. & Brown, F. (1991). Education and treatment needs of students with profound, multiply handicapping, and medically fragile conditions: A survey of teachers' perceptions. The *Journal of the Association for Persons with Severe Handicaps*, **16**, 94 - 103.

LaVigna, G.W., Willis, T.J. & Donnellan, A.M. (1989). The role of positive programming in behavioral treatment. In E. Cipani (Ed*.), The treatment of severe behavior disorders: Behavior analysis approaches*. Washington, D.C.: American Association on Mental Retardation.

Lennox, D.B. & Miltenberger, R.G. (1989). Conducting a functional assessment of problem behavior in applied settings. *The Journal of the Association for Persons with Severe Handicaps*, **14,** 304 - 311.

Lindsey, P. & Luckasson, R.(1991).Consent Screening Interview for community residential placement: Report on the initial pilot study data. *Mental Retardation*, **29**, 119 - 124.

Meyer, L.H. & Evans, I.M. (1989). *Nonaversive intervention for behavior problems: A manual for home and community*. Baltimore: Paul H. Brookes.

Neel, R.S. & Billingsley, F.F. (1989). *Impact: A functional curriculum handbook for students with moderate to severe disabilities*. Baltimore: Paul H. Brookes.

Nelson, C.M. & Rutherford, R.B. (1983). Timeout revisited: Guidelines for its use in special education. *Exceptional Education Quarterly*, **3**(4), 56 - 67.

O'Brien, F. (1989). Punishment for people with developmental disabilities. In E. Cipani (Ed.), *The treatment of severe behavior disorders: Behavior analysis approaches*. Washington, D.C.: American Association on Mental Retardation.

Polsgrove, L. (1983). Foreword to *Aversive control in the Classroom*. *Exceptional Education Quarterly*, **3**(4), x - xi.

Rose, T.L. (1983). A survey of corporal punishment of mildly handicapped students. *Exceptional Education Quarterly*, **3**(4), 9 - 19.

Rose, T.L. (1989). Corporal punishment with mildly handicapped students: Five years later. *Remedial and Special Education*, **10**, 43 - 52.

Scotti, J.R., Evans, I.M, Meyer, L.H. & Walker, P. (1991). A meta-analysis of intervention research with problem behavior: Treatment validity and standards of practice. *American Journal on Mental Retardation*, **96**, 233 - 256.

Singer, G.S. & Irvin, L.K. (1987). Human rights review of intrusive behavioral treatments for students with severe handicaps. *Exceptional Children*, **54**, 46 - 52.

Spreat, S. & Lanzi, F. (1989). Role of human rights committees in the review of restrictive/aversive behavior modification procedures: A national survey. *Mental Retardation*, **27,** 375 - 382.

Thompson, T. (1990). The Humpty Dumpty world of *aversive* interventions. The *Journal of the Association for Persons with Severe Handicaps*, **15**, 136 - 139.

Turnbull, H.R., Ellis, J.W., Boggs, E.M., Brooks, P.O & Biklin, D.P. (1981). *The least restrictive alternative: Principles and practices*. Washington D.C.: American Association on Mental Deficiency.

Turnbull, A.P. & Turnbull, H.R. (1990). A tale about lifestyle changes: Comments on *Toward a technology of* nonaversive *behavioral support*. *The Journal of the Association for Persons with Severe Handicaps,* **15**, 142 - 144.

Wehmeyer, M.L. (1992). Self-determination and the education of students with mental retardation. *Education and Training in Mental Retardation,* **27**, 302 - 314.

Wehmeyer, M.L., Bourland, G. & Ingram, D. (1993). An analogue assessment of hand stereotypes in two cases of Rett Syndrome. *Journal of Intellectual Disabilities Research,* **37**, 110 - 117.

Wood, F.H. & Braaten, S. (1983). Developing guidelines for the use of punishing interventions in the schools. *Exceptional Education Quarterly,* **3**(4), 68 - 75.

CONSTRUCTING A SCALE FOR HANDICAPPED PROBLEMS IN THE UNITED ARAB EMIRATES

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The purpose of the study was to develop a Likert-type scale with several dimensions to assess the problems of handicapped individuals in the United Arab Emirates (UAE). A sample of 125 students (84 male, 41 female) were selected from centers across the U.A.E. to conduct this study. The scale items were analyzed using factor analysis with varimax rotation.

Recently the Arab states have begun implementing polices that create public awareness and facilitate projects that address the needs of handicapped individuals. The discovery of oil in the Gulf States has provided governments with unlimited financial resources. This helps to promote thinking about providing the public with welfare programs to create a holistic social development in order to prevent negative phenomena, such as poverty, illiteracy, and problems related to handicaps (Smadi & Sartawi, 1995).

The United Arab Emirates, (UAE), began implementing several programs to serve handicapped individuals across the country. These programs are affiliated either with the Ministry of Social Development, known as centers for the handicapped; or with the Ministry of Education, known as special classes or resource rooms associated with public schools.

The nature of services programs is random in the absence of needs assessment studies in UAE. Industrial countries have developed their own programs based on needs assessment studies. (Waksman & Jones, 1985). For example, research studies tackled the barriers to the provision of free, appropriate, public education to handicapped children in eight regions in the State of West Virginia in the United States (National Association of State Directors of the Special Education, 1987). Also, educational needs and problems of minority

handicapped children have been assessed by way of research (Gentry, 1983).

The psychometric studies in the Arab World face several obstacles and barriers related to the lack of professionals in the various subject matters, absence of governmental commitment toward the development of educational and psychological services, absence of public awareness about the necessity for standardized psychological assessment, and the attitudes of educational personnel about the feasibility of using psycho-educational tests. Therefore, several research studies have addressed such problems and needs of handicapped individuals (Rabadi, 1988; Rajhi & Ammar, 1983; Al-Khori, 1983). Reviewing these research papers revealed that researchers used structured interviews as a method of identifying problems due to the lack of valid and reliable scales. Therefore, the need for developing instruments to fill this gap became very urgent and obvious for the collection of valid and reliable data related to the problems of handicapped children. Thus, the purpose of this study was to develop a valid and reliable scale that assesses the problems of handicapped individuals in UAE. The development of such scale is expected to offer decision makers and planners with a valid and reliable mean of data collection for the first time in UAE. Also, it might open the road for further research and provide other researchers with a cornerstone to investigate the problems of handicapped persons in UAE in particular, and in the region in general.

Stages of the Scale's Construction

Constructing the Scale for Handicapped Problems (SHP) passed through several stages:

Stage one: Development of Scale Items

To develop the items of the scale, the researchers constructed a structured interview form and conducted about 20 interviews with handicapped individuals aged 15 years old and above. The theme of the structured interview form was to ask the subjects to list their various problems in each domain which were stated in the form based on previous research literature. Then, the subjects' responses were rewritten in a standard form as a Likert-type scale in which the respondents were instructed to choose one of the following four options (Always = 3; Mostly = 2; Sometimes = 1; does not apply = .0). The primary scale consists of 7 domains which are (a) social interaction, (b) financial support, (c) related services, (d) legislative and information, (e) health and medical, (f) education, and (g) psychological problems.

Using the respondents' answers and previous literature, the researchers were able to identify ten problems in each domain which gives a scale of 70 items in total.

Stage two: Content Validity

The researchers defined each domain procedurally and wrote the ten items under each domain. Then, the primary scale was given to a panel of 10 judges specialized in psychological measurement, special education, and language. They were asked to check out suitability, clarity, and belongings of each item to its domain. The panel's responses were analyzed; items with 90% agreement and above were accepted and items were rewritten as suggested.

Stage three: Training Interviews

In order to administer the scale, three specialists were trained to apply the instrument to the handicapped. In the case of mentally retarded individuals, teachers or parents were asked for help during the interview process.

Stage four: Sample of the Study

A sample of 125 handicapped students (84 male, 41 female) from various handicapped centers in the UAE participated in this study. The sample represents various disabilities: Mental retardation (47), hearing impairment (27), visually impairment (5) physical handicap (32) and multiple handicap (13).

Stage five: Validity

In addition to the content validity which was examined by the panel of 10 judges, data were analyzed and item-total score correlation were calculated. Items with a correlation coefficient greater than .32 were kept; and items with a correlation of less than .32 were deleted. This process produced a scale of 60 items. Then, factor analysis, using principle component with varimax rotation, was used to analyze the remaining items. The factor analysis revealed that the scale has (14) factors which explained 73% of the total variance. Because some of the factors had a small number of items, the data were reanalyzed using the same procedure based on two conditions:

1. the new analysis has to maintain the structure of the domains in the basic scale, and
2. each domain should have at least (3) items.

The resulting seven factors were extracted and rotated as presented in table 1.

When each of the scale items was listed under factors, the highest correlation of the item with prospective factor was used as a basis to determine its belonging .

Factor one	:	Psycho-social interaction problems (13 items)
Factor two	:	Financial problems (9 items)
Factor three	:	Accessibility and services problems (9 items)
Factor four	:	Legislation and information problems (9 items)
Factor five	:	Health and medical problems (9 items)
Factor six	:	Educational problems (7 items)
Factor seven	:	Public attitudes (4 items)

The obtained seven factors explain 57.5% of the total variance. Comparing these factors with the scale primary domains revealed that this scale has construct validity since its factors matched those of the hypothesized domains.

Table 1
Item Distribution Across the Seven Factors

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
2. My family excludes me from social events	.56						
3. Other people treat me as helpless	.65						
10. My handicapping condition does not allow me to express my feelings and emotions	.57						
23. I have problems developing friendship with non-handicapped people	.78						
24. I avoid interacting with others	.75						
31. I feel sad and depressed	.65						
37. I have problems participating in social events	.64						
38. I feel lonely because of my handicapping condition	.57						
44. Other people avoid me	.77						
45. I don't have enough knowledge about my strength	.60						
51. I have poor relationships with other handicapped	.62						
52. I have problems expressing my feelings	.70						
66. I'm ashamed of my appearance	.56						
4. I have malnutrition due to my financial status		.62					
11. I can't buy school instruments due to my financial status		.78					
18. I can't spend money like my friends		.76					
25. My financial status doesn't allow me to get equipment that helps me		.60					
39. My financial status stops me from getting necessary medical treatment		.71					
46. My allowance is a burden to my family		.74					
53. I need reliable financial resource		.61					
60. My family financial status stops me from fulfilling my needs		.82					
67. I don't have enough financial aid		.75					
6. I have a problem finding adapted transportation			.63				
19. I suffer because I travel a lot			.63				
20. I have a problem finding parking space			.70				
41. I am exhausted from traveling to the center			.59				
48. I have problem using regular buses			79				
55. Access to public buildings is a problem for me			.74				
61. I suffer from the side effects of the medicine			.33				
62. Streets are not suitable for me to use			.75				
68. I feel bad because of using equipment			.61				
13. I have little information about services I might need							
30. Mass media provide little information about handicaps				.40			
35. I have no chance to represent other handicapped							

No.	Item							
42.	Our needs are ignored by public institutions				.72			
49.	There are no laws to protect our rights				.62			
56.	There are no legislation that protect my right to work				.75			
63.	Private sector doesn't hire me				.76			
69.	Public institutions don't provide facilities for me				.81			
70.	I have a rare chance getting governmental job				.79			
5.	There is a shortage of medical equipment for handicapped people					.59		
12.	I don't find enough medical care					.57		
16.	There are no health and sport clubs for handicapped people in the local community					.40		
26.	I don't benefit from health education programs					.60		
32.	My handicapping condition requires further medical costs					.50		
33.	Paramedical staff don't understand my conditions					.68		
34.	I have no counseling services					.51		
40.	My health is deteriorated due to insufficient medical services					.70		
54.	I have problems obtaining necessary medical treatment					.47		
7.	I suffer from being in an isolated center for the handicapped						.37	
15.	I'm not satisfied with the program content						.48	
27.	Center programs are unsuitable						.66	
28.	I suffer from isolation in activities						.46	
29.	Personnel treat me in inappropriate manner						.52	
50.	My teachers don't understand my needs						.72	
57.	Instructional materials are above my capabilities						.62	
47.	I'm getting tired of doctors frequently hurting me							.47
58.	Public views of the handicapped							.68
59.	I'm bothered by people treating me as handicapped							.70
65.	People believe that I'm a weak person							.53

Correlation coefficients were calculated among these factors (Table 2).

Table 2 revealed that the factors are positively correlated with each other and this reflects the cohesiveness of the scale.

Table 2
Matrix Correlation Coefficient Between Factors and Total Score

	F.1	F.2	F.3	F.4	F.5	F.6	F.7	F.8
F.1		.31	.18	.37	.18	.35	.49	.64
F.2			.44	.31	.51	.35	.42	.70
F.3				.44	.56	.17	.43	.68
F.4					.57	.38	.37	.75
F.5						.36	.38	.75
F.6							.34	.54
F.7								.67

Reliability

Internal consistency of the items was examined using Cronbach-Alpha. The result revealed that the full scale has a Cronbach-Alpha of .94. The Cronbach-Alpha for each factor was

F.1	=	.90
F.2	=	.91
F.3	=	.88
F.4	=	.88
F.5	=	.85
F.6	=	.74
F.7	=	.79

Reviewing Cronbach-Alpha for the scale and its factors reflects that it has a high reliability.

Using content validity, item-total score correlation, factor analyses, and internal consistency (Cronbach-Alpha) indicated that this instrument is valid and reliable. These results supported the use of the instrument in order to investigate problems of the handicapped in UAE as well as in the region in general.

Conclusion and Recommendations

The scale for the Handicapped problems is a new Arabic version that measures the problems of a wide range of handicapped (15 years and above). It has been tested for validity and reliability for the assessment of the problems of the handicapped in seven domains. It can be used to help researchers in other Arab countries to develop similar instruments applicable to their environment. This scale can be used for research purposes and need assessment in developing programs for the handicapped. The instrument has some limitations such as the small sample size and the lack of reference norms. Therefore, the researchers recommend further studies to develop such norms using a large and comprehensive sample.

REFERENCES

Al-Khori, S. (1983). *Evaluation of amputee children.* Queen Alia foundation for social and Volunteer work. Amman - Jordan. (in Arabic).
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Gentry, R. (1983). *Assessing problems and needs in educating minority handicapped children.* ED. 234565.

National Association of State Directors of Special Education (1987). *Barriers to provision of free appropriate public education to handicapped children in West Virginia: An assessment of eight regions.* ED 284407.

Rabadi, H. (1988). *A study of problems of physically handicapped in Irbid-Jordan.* Department of physical education. Yarmouk University, Irbid-`Jordan (in Arabic).

Rajhi, M. & Ammar, A. (1983). A study of the handicapped in Arab countries. *Arab Journal for Educational Research,* 2(21), 1-18 (in Arabic).

Waksman, S. & Jones, V. (1985). *A suggested procedure for the identification of and provision of services to seriously emotionally disturbed students.* ED 314888.

REACTIONS OF PARENTS OF NONDISABLED CHILDREN TO MAINSTREAMING OVER TIME: IMPLICATIONS FOR EDUCATION PRACTITIONERS

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The purpose of this study was twofold: (a) to examine the open-ended comments made by parents of regular education students to the benefits and drawbacks of mainstreaming, and (b) to examine stability and change in parents' comments over a 10-year interval. In 1981, 761 parents were sampled from one rural and one suburban location in state of Illinois (USA). In 1991, 483 parents were sampled from the same locations. All parents responded to a Parent Attitude Scale Toward Exceptional Children. The study revealed two main findings. First, parents were neutral toward mainstreaming for students with mild disabilities and were opposed to mainstreaming for students with severe disabilities, and this view did not change during the 10-year interval of the study. Second, parents became less extreme in their view that mainstreaming would promote social gains for all children, and also became less extreme in their view that mainstreaming would cause instructional harm to all children.

The past decade has witnessed considerable fervor among professional educators regarding the placement of educationally disabled students in regular education programs. Several years ago, Will (1986), former assistant secretary in the United States Department of Education, advanced the concept of regular education initiative (REI) which asserted that children with disabilities should become more intimately involved in the general education program. More recently, the field of special education has become concerned with the issue of full school inclusion for all, the placement of all children with disabilities in general

education classrooms, which has its strong proponents (e.g., Lipsky & Gardner, 1989; Stainback & Stainback, 1992) and its opponents (Fuchs & Fuchs, 1994; Jordan & Powell, 1994; Kauffman, Gerber, & Semmel, 1988). Both the REI and the inclusion movement are an outgrowth of the legal principle of the least restrictive environment, the portion of federal legislation providing for placement of children whose are educationally disabled together with nondisabled peers to the maximum extent appropriate (e.g., Public Law 94-142 of 1975 in the USA). Similar legislation and procedures requiring the placement (mainstreaming) of children with disabilities where appropriate alongside their age peers, within ordinary classrooms and schools are also documented in other industrialized countries, such as the U.K., Canada, and Australia (Buchner, Denholm, & Pieterse, 1991; Center, Ward, Parmenter, & Nash, 1985); in the Scandinavian countries (Jull, 1989); as well as in many third world countries (UNESCO, 1988). The LRE or mainstreaming mandate must be viewed in the context of another major component of special education legislation (i.e., Public Law 101-476 Individuals with Disabilities Act, 1990 in the USA) which requires that parents of children with disabilities be involved in all aspects of their child's educational program, including the educational placement the child should be afforded.

Despite the clear intent of these laws to actively involve parents in the child's education, only few studies focused on parents' views and wishes regarding their child's educational placement. Is it true that parents of children with disabilities want their children to participate in the mainstream of general education? Results reported from such studies have been mixed. For example, Simpson and Myles (1987) reported that many parents of children with mild disabilities expressed positive attitudes toward the integration of their children contingent upon the implementation of several educational modifications. Similarly, Mylnek, Hannah, & Hamlin (1982) found support for mainstreaming by parents of children with learning disabilities but parents of children with behavior disorders and mental retardation were less supportive. Recently, however, Green and Shinn (1994) reported that parents of students with learning disabilities expressed reluctance to return their child to the regular classroom. Focusing on parents of children with severe disabilities, McDonnell (1987) found that parents whose children were in special schools viewed the potential placement of their children in integrated programs negatively. On the other hand, parents of children who attended integrated programs were supportive of their placement in regular school programs. Similarly, Hanline and Halvorsen (1989) found that parents of children with severe disabilities in an integrated program recognized the benefits of integration yet identified also several areas of major concerns.

The issue of parental views and involvement in mainstream education transcends those of parents of students with disabilities. The attitudes of parents of nondisabled peers, the numerically dominant group in all general education classes, must also be considered. If parents of nondisabled youngsters are antagonistic to the presence of children with disabilities in the same classes as their own children, the negative attitudes can easily be transmitted to their children. Unfortunately, only a limited number of investigations

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attempted to examine these parents' views. Results from these studies tend to be inconsistent. For example, Gottlieb and Corman (1975) found that public attitudes indicated, in general, an acceptance of children with retardation. Yet, this acceptance was not accompanied by an equally strong acceptance of integrated educational placements for students who are mentally retarded. More recently, Berryman (1989) found that persons not having children in school since 1975 (passage of PL 94-142) expressed more favorable attitudes toward mainstreaming than parents having children in school, and Hayes and Gunn (1989) reported that parents of children who attended school with a mainstreaming program in its first year, held more negative attitudes toward mainstreaming than parents of children in schools without such programs.

Different outcomes were noted by Turnbull, Winton, Blacher, and Salkind (1982). These investigators reported that parents of nondisabled children who attended a mainstreamed kindergarten were supportive of mainstreaming as were the parents of the special needs children in the program. The authors also reported a high level of agreement between both sets of parents on the benefits and drawbacks of mainstreaming. The greatest benefit of mainstreaming was identified by parents as related to social outcomes. Both groups identified the greatest drawback to be in the instructional realm, i.e., teachers are not qualified or trained, and handicapped children do not receive individualized instruction they need.

Support for mainsteaming by parents of nondisabled and disabled children was also observed in a recent study by Lowenbraun, Madge, and Affleck (1990). The authors found that parents of children with mild disabilities who were mainstreamed as well as parents of general education students in these classes, were very satisfied with the integrated classroom and with their children's academic and social progress.

The purpose of this study was twofold: (a) to examine the views of parents of nondisabled children regarding various aspects of mainstreaming, especially on its benefits and drawbacks, and (b) to examine the stability and change of these views about mainstreaming/integration over a 10-year interval, from 1981 to 1991. During 1981 the full effects of Public Law 94-142 in the USA had taken hold, but schools' procedures for placing a wide range of students with disabilities in mainstream settings were still in their formative stages. By 1991 mainstreaming, REI, and inclusion became a part of the special education vocabulary. Schools were alert to the mandated need to place learners with disabilities in the mainstream, procedures to do this were well established, and, in fact, almost 70% of students identified as disabled, ages 3-21 were mainstreamed in regular education classes for the major portion of their education (U.S. Department of Education, 1993).

Method

Sample

Subjects were parents of nondisabled children in the large midwestern state of Illinois. In 1981, 1,000 questionnaires were distributed to parents of regular education elementary and junior high students who resided in two locations in the state. One location was at the

northwestern corner of the state and comprised of 14 small rural school districts. The other location was comprised of two suburban school districts outside Chicago. The districts selected to participate in the study were quite representative of many other rural and suburban school districts in the state, in terms of demographics and types of special education programs. Data provided by these districts regarding SES levels indicated that parents in the rural group were mainly of lower to upper lower class economic levels, while families residing in the suburban communities tended to be middle class economic status. Questionnaires were returned form parents of 761 students, 76.1% of those to whom questionnaires were distributed.

Ten years later in 1991 the identical questionnaires were distributed to 800 parents of regular education students in the same locations although not to the same parents. A total of 483 (60.4%) questionnaires were returned.

Mothers were the primary respondents. In 1981, 70.8% of the questionnaires were completed by mothers, 17.6% by both mothers and fathers, and 9.6% by fathers only (the remaining forms were filled out by others, or had no information). In 1991, 76.4% of forms were completed by mothers, 8.1% by both mothers and fathers, and 13.2% by fathers only.

Respondents were not asked to indicate their race or ethnicity on the attitude questionnaire. We know, however, after contacting the districts that 89% of the population of the suburban school districts were white, 9% were Asian, 1% were black, and 1% were Hispanic. In the rural communities 95% were white with 1% black, 1% Asian, and 3% Hispanic.

In the suburban schools, special education services available included resource rooms for students with learning disabilities and students with behavior disorders. There were no self-contained classrooms. Special education students spent less than half of the day in the resource rooms. Most, however, spent there only between 30-60 minutes per day. In the rural districts, special education services available in the schools included programs for high incidence students, i.e., students with mild or moderate behavior disorders, learning disabilities, and mental retardation. These students were served in self-contained classrooms and in resource/instructional programs. Students in self-contained classes were mainstreamed into regular classrooms for some academic subjects, and in larger numbers for non-academic activities (e.g., art, music, physical education).

Procedures

The questionnaire was distributed with the cooperation and assistance of building principals in the suburban schools and the assistance of the director of special education in the rural districts. Principals in the two suburban schools selected about half of the teachers at random in their building and asked them to select at random students in their classes. These students were asked to take the form home for their parents to fill out. Completed forms were later returned to the teachers and then to the principals who mailed them to the university address provided. In the rural school districts, forms were sent to the director of special education, who distributed about 15-20 forms to building principals in 25 small

schools. A similar procedure as described for the suburban schools was used in the distribution and collection of the forms. Follow-up mailings were sent to the districts. Pupils in schools who did not return the forms were reminded that their questionnaires were missing. This procedure resulted in the return of additional forms.

Instruments

The questionnaire employed as a modified version from previous surveys of parents of disabled children (Leyser & Cole, 1984). The instrument was composed of items seeking information on: background (i.e., parents' age, education, occupation, number of children); contact with disabled individuals (i.e., *Do you have any social friends that have a handicapping condition?*); availability of information about mainstreaming (i.e., *Have you received any information about mainstreaming or Public Law 94-142?*); the degree of support for mainstreaming (i.e., *Do you think it is a good idea to have handicapped children in the regular classroom?*); and benefits and drawbacks of mainstreaming for the disabled child, his or her nondisabled peers, and for the teacher (i.e.,*Do you think it is fair to the handicapped child to place him in a regular classroom?, Do you have any concerns about the behavior your child might see from handicapped students?, and Do you feel that the regular teacher would have time to help your child individually if handicapped children were included in the regular classroom?*). Ample space was provided for personal comments or views on the issues. (The term handicapped children was used in the questionnaire as in PL 94-142. This term was changed in the law of 1990 to individuals with disabilities.) Findings from the analyses of the structured portion of the questionnaire are reported in another paper (Gottlieb & Leyser, in preparation). The focus of the current research is on the open-ended written responses of parents during the 1981 and 1991 data collections to the last item on the questionnaire which was labeled *Comments*. This item was included to allow parents the opportunity to provide personal commentary regarding their views and opinions about mainstreaming and to enable them to elaborate and expand on any answer or response given earlier. Of the 761 parents who returned completed questionnaires during the 1981 study, 414 (54.4%) volunteered written comments. Of the 483 forms returned in 1991, 253 (52.3%) offered written comments. The difference in the rate of parents' comments for those who returned the questionnaires is not statistically significant. The group of 667 parents (414 + 253) represents the sample examined here.

Scoring of Parent Comments

During both the 1981 and 1991 data collections, two graduate assistants, who were graduate students in special education, read the written responses to the open-ended questions in which parents expressed their views and ideas about mainstreaming. Raters were directed at both times to rate each parent's overall response for degree of support for mainstreaming. Ratings were done on a 5-point Likert scale, where 1 = no support for mainstreaming, 2 = little support, 3 = some support, 4 = strong support, and 5 = very strong support. Examples of responses which resulted in a rating of 1 to 5 were as follows:

        1. *Unfair, poor idea, need special classes, against mainstreaming, students don't belong all together, they learn better with their own kind.*

2.   *Classes are too full already,   extremely difficult for handicapped child emotionally, If child has special needs, he needs special teacher.*

3.   *Don't approve or disapprove,   depends on condition,   if and only if handicapped child will feel successful, many concerns for the teacher.*

4.   *Good idea if teacher has time, they are more alike than different,   probably will be a good experience and build compassion.*

5.   *Very good idea, right to good education for all, exposure to handicaps will help normal kids, disapprove of segregation and labeling.*

In addition to quantifying parents' rating of support for mainstreaming, the raters were asked to identify and record the categories of exceptionality mentioned by each parent (e.g., blind, mentally retarded), and to tally the number of times these categories were specifically mentioned.   The nature of parents' open-ended responses in both data sets indicated that they were divided into two general subsets.   One subset of responses focused on parents' comments directed toward children with mild to moderate disabilities.   A second subset focused on mainstreaming of children with severe disabilities.

Raters also recorded and tallied the statements made by parents about drawbacks and benefits of mainstreaming, as well as their suggestions about factors associated with the success of mainstreaming.   The length of most comments was between one-half page to a full page.   Some parents wrote lengthy narratives of between one and two pages.   The categories used for grouping the written comments were developed from categories reported in previous similar studies (i.e., Turnbull et al., 1982) and input from team meetings.

During 1981 and 1991, raters were provided with several training sessions.   These included a detailed presentation of the rating procedures followed by repeated independent ratings of written transcripts which represented views about mainstreaming.   The ratings were compared each time and discussed until raters reached agreement.

Results

Our initial analyses concerned inter-rater agreement on the 5-point ratings of the favorability of parents' responses.   The Pearson product moment correlation coefficient for the 1981 data indicated a coefficient of .70. The comparable coefficient for the 1991 data was .83. The raters disagreed by more than one favorability unit (e.g., a rating of 2 and 4) in only 3% of the ratings.

(a) Parent Overall Disposition Toward Integration

Perusal of the data indicated substantial differences in parents' comments regarding mainstreaming of students with mild and severe disabilities.   Consequently, we analyzed responses to the two groups separately.

The mean score for the two raters on 373 parents' statements about integration of youngsters with mild and moderate disabilities was 3.10 (SD = .98) for the 1981 data. The corresponding rating for 214 parents' ratings in 1991 was 3.15 (SD=1.08) for the 1991 data.   These scores indicate that parents were neither favorable nor unfavorable toward mainstreaming, and that the results were statistically similar during both data collections (t=.57, df=585, p=NS).

The mean rating of 41 parents' responses during the 1981 study for the degree of support for integrating students with severe disabilities was 1.16 (SD = .28). The mean rating of 39 parents on the follow-up study was 1.08 (SD=.68). These scores indicate a strong disapproval by respondents during both data collection periods. Again, there was no statistically significant differences over time in favorability of parents' responses. The t-value for unequal variances was .68 (df=50, p=NS).

(b) Acceptability of Various Groups of Exceptional Students

Information about the degree of support for mainstreaming for different exceptional categories was obtained by recording statements in which a specific category of students was mentioned. Quite often parents stated that their degree of support depends on the disability, i.e., *Depending on the type of disability/physically disabled yes/mentally disabled no.* As can be seen in Table 1, overall parents in both studies were most supportive of the integration of students with physical disabilities followed by students with hearing impairments and visual impairments. Several supported the integration of students with learning disabilities. The least support (none in 1981 and a few in 1991) was lent to the integration of students with mental retardation and behavior disorders. The reverse pattern can be noted on the rejection column. Parents opposed integration of students with mental retardation and behavior disorders. Several expressed opposition to the integration of students with learning disabilities, and a few held negative attitudes about inclusion of students with physical and sensory disabilities.

Table 1
Number of Parents Supporting and Opposing Mainstreaming by Disability
In 1981 (N=414) and 1991 (N=253)

Disability	Support Mainstreaming				Oppose Mainstreaming			
	1981		1991		1981		1991	
	N	%	N	%	N	%	N	%
Physically Impaired	58	(16.7)	31	(12.2)	3	(2.2)	1	(0.3)
Visually Impaired	14	(5.3)	10	(3.9)	4	(1.5)	5	(1.9)
Hearing Impaired	16	(6.0)	11	(4.3)	2	(0.7)	3	(1.1)
Learning Disabled	12	(4.5)	9	(3.5)	14	(5.3)	8	(3.1)
Mentally Retarded	0	(0)	6	(2.4)	52	(19.7)	19	(7.5)
Emotionally Disturbed	0	(0)	1	(0.3)	68	(25.8)	47	(18.5)

Although there were no statistically significant differences over the decade in the extent or nature of parents' statements of support for various categories of disabled children there

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were significant differences in their expressions of opposition. The most notable differences were for students who are mentally retarded and emotionally disturbed. A smaller percentage of parents in 1991 than 1981 opposed the integration of students who are mentally retarded (power=.99) or emotionally disturbed (power=.60).

(c) Benefits and Drawbacks of Mainstreaming

Parents often provided a rationale for their statements regarding their degree of support for or opposition to mainstreaming. Many of their comments indicated benefits and drawbacks. Parents who focused on students with severe disabilities tended to be uniformly, unfavorable toward inclusion and were not specific about benefits and drawbacks. Parent responses regarding benefits and drawbacks presented below include their comments, regardless of the disability category which they mentioned.

Perusal of parents' comments indicated that they divided the benefits and drawbacks of mainstreaming into two categories: social/attitudinal and instructional.

Social benefits. Overall, there was a significant and statistically powerful decline between 1981 and 1991 in the percentage of responses that indicated mainstreaming was socially beneficial. As is indicated in Table 2, 30.2% of the parents' in 1981 and 18.5% of the parents in 1991 stated that there were social benefits for students with disabilities. This decline was statistically powerful (power=.93). The corresponding percentages of social benefits for classmates who are nondisabled were 44.2% and 20.9%, also a statistically powerful decrease (power=.90).

Table 2
Mainstreaming Benefits for Disabled (D) and Nondisabled (ND) Classmates
Identified in 1981 (N=414) and 1991 (N=253)

	Social Attitudinal				Instructional			
	D		ND		D		ND	
Study	N	%	N	%	N	%	N	%
1981	125	(30.2)	183	(44.2)	0	(0)	0	(0)
1991	47	(18.5)	53	(20.9)	18	(7.1)	4	(1.6)

Although the overall response patterns during the decade changed, with fewer parents recognizing the social benefits to mainstreaming, respondents felt that mainstreaming has the potential for facilitating in their own children a more accepting attitude toward children with disabilities. Parents also commented that a benefit of integration was that nondisabled classmates would exhibit increased levels of compassion, tolerance, and understanding of differences, and reduced levels of prejudice, discrimination, and stigma. An example of a statement was: *Can benefit from becoming friends. Learn to understand types of disabilities. School system should replicate adult world.*

Parents also mentioned social/attitudinal benefits for the exceptional child emphasizing the idea that being mainstreamed will promote mutual understanding, a sense of normalcy, and improved self esteem. An example of a comment was: *Handicapped children might want to get with normal kids just to be normal instead of outcasted for being different*.

Instructional benefits. As can be noted in Table 2, during both 1981 and 1991 few parents mentioned the instructional benefits that result from mainstreaming. During the 1981 study none of the parents mentioned any instructional benefits of mainstreaming either for the exceptional child or for the nondisabled classmates. During the 1991 follow-up, however, several parents recognized academic benefits for the exceptional student and a few mentioned instructional benefits for the nondisabled peers. These differences were not statistically significant. An example of a comment was: *Handicapped and other children would benefit from learning together*.

Social drawbacks. As is evident from inspection of the data in Table 3 overall there was little change in parental reactions to the social/behavioral drawbacks of mainstreaming for the special needs child and for nondisabled classmates. Several parents indicated that nondisabled classmates are often mean, cruel, or hard on a child who is disabled, and that they may verbally abuse him or her. Some stressed that mainstreamed students may be put under too much stress, feel inferior, or encounter adjustment difficulties. An example was: *Children with mental and psychological problems would not be able to survive socially in the mainstreamed classroom*. On the other hand, some parents expressed concerns about *normal* classmates being negatively affected by mainstreamed students. They mentioned physical danger or harm and the possibility of learning negative behaviors. An example was: *Normal kids would start adapting the behavior patterns of the handicapped child to gain the teacher's attention*. As shown in Table 3 a slightly higher percent of parents in 1991 than in 1981 expressed concerns about social/behavioral drawbacks for their nondisabled children.

Instructional drawbacks. Findings shown in Table 3 revealed that there was a statistically significant, and powerful, decrease in parents' comments regarding the instructional drawbacks for both groups of learners. The power for the difference for instructional drawbacks for children was disabilities was .99 and the corresponding power for nondisabled children was 1.00.

In discussing drawbacks of mainstreaming, parents expressed primarily instructional concerns, while fewer raised social/behavioral concerns. This was in marked contrast to parents' comments regarding benefits (Table 2), where comments about social effects were primarily raised. Parents' greatest fear was that mainstreaming might impede the academic progress of nondisabled classmates. They mentioned the impact on the teacher who would have to spend excessive amounts of time and attention to help the exceptional learner.

Parents also stressed the heavy teaching load and problems that teachers already face in schools especially regarding discipline. Some expressed worries about the slower pace and the possibility of a decrease in the quality of education or the lowering of educational standards.

An example of a comment was: *My great concern is that my child would probably not get individual help from the teacher if there were handicapped children in the classroom.*

Table 3
Mainstreaming Drawbacks for Disabled (D) and Nondisabled (ND) Classmates
Identified in 1981 (N=414) and 1991 (N=253)

| | Social Attitudinal | | | | Instructional | | | |
| | D | | ND | | D | | ND | |
Study	N	%	N	%	N	%	N	%
1981	46	(11.1)	18	(4.35)	110	(26.6)	149	(35.9)
1991	23	(9.0)	19	(7.5)	34	(13.4)	48	(18.9)

While parents raised instructional concerns for nondisabled children, many also expressed concerns about mainstreamed students. First, parents indicated that regular classroom teachers are not trained and qualified to teach exceptional students. Several stated that mainstreamed students would receive inferior education in the classroom and that their progress would be hindered. It was the view of many that students with disabilities would be served better and benefit more from placement in a special classroom taught by a special education teacher. An example of a comment was: *Would not be fair to the handicapped children to place them in an environment that would put pressure on them that they would not be capable of handling.*

(d) Improving the Mainstream

In addition to the comments regarding benefits and drawbacks of mainstreaming, parents also offered several ideas, and words of advice about how to make mainstreaming more successful. We classified the ideas shared at both times into three groups: Pupil Variables, Teacher Variables, and School/Environmental Variables.

Pupil variables included suggestions to consider the type and severity of the disability, the child's educational level and capacity to learn, the degree to which the child has needed readiness skills to enter the regular classroom, and his/her attitudes. Some mentioned the child's tolerance level and his/her own choice, while others suggested placing the child on a trial basis to determine if he or she can make it.

Regarding Teacher Variables, parents identified a need to prepare and train teachers for working with mainstreamed students, e.g., *Continuing education for teachers should be mandated.* Several parents identified a need to modify teacher attitudes and feelings about integration, while some mentioned that the final decision or choice should be made by the teacher, who is the person *to deal with the issue on a daily basis.* Parents also indicated that there is a need to provide additional support staff, aides, and volunteers. Cooperation between all persons involved, teachers, parents, and principals, was perceived as important by several respondents.

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Parents' responses focusing on school/environmental variables emphasized the need for additional funds, availability of space, learning aids, and materials, reduced class size and the updating of testing and evaluation procedures.   Parents also suggested sharing information with parents *to dispel myths and increase support* and prepare nondisabled peers with needed knowledge about children with disabilities.

Discussion

The main purposes of this investigation were (a) to explore views and concerns of parents of nondisabled children about mainstreaming and (b) to examine stability and change in their perspectives over a formative decade (1981 to 1991) of special education integration movement.

Findings have shown that, in general, most parents in the two samples examined did not express unfavorable attitudes toward the idea of mainstreaming children with mild disabilities.   Their overall disposition was neutral.   This data do not support previous findings which indicated either that parents of nondisabled school-age children generally hold an unfavorable disposition toward integration (Berryman, 1988; Hayes & Gunn, 1988) or a favorable disposition (i.e., Turnbull et al., 1982; Lowenbraun et al., 1990).

A closer examination of parental responses, however, revealed that although they neither strongly endorsed nor rejected the mainstreaming alternative outright, many were more supportive of the integration of some groups of pupils with disabilities than others.

Findings revealed that parents were most supportive of the mainstreaming of students with physical disabilities followed by students with sensory disabilities. An ambivalent attitude was expressed toward pupils with learning disabilities, while students with mental retardation and behavior disorders were rejected by a sizable minority of parents.

Interestingly parents' responses in 1991 were slightly less oppositional than 10 years earlier to the integration of mentally retarded children and also to the integration of students with behavior disorders.

A similar hierarchical acceptance pattern of individuals with exceptionalities found here was also reported in studies of teachers (Hannah & Pliner, 1983; Harasymiw & Horne, 1976; Leyser & Bursuck, 1986), the general public (Berryman, 1989; Brulle, Martin, & Barton, 1985; Horne & Ricciardo, 1988), and in attitude research of children (Horne & Ricciardo, 1988; Jones, Gottfried, & Owens; 1966).

Although the 10-year interval appeared to have moderated some parents views regarding mainstreaming of mentally retarded and emotionally disturbed children, parents in both 1981 and 1991 expressed strong negative feelings toward the idea of including children with severe disabilities in classrooms with nondisabled peers. Considering the trend to place students with severe disabilities in age-appropriate public schools and to educate them *side by side* with nondisabled students, educators will be required to exert considerable effort to gain public support for this educational movement. Many current efforts to include youngsters with severe disabilities into general education classes do not appear to court parents of general education children very actively, however. The wisdom of this approach remains to be demonstrated.

Some noticeable shifts in parent perspectives about the benefits and the drawbacks of mainstreaming were reported between the two samples. Shortly after the integration movement was initiated, in about 1981, parents perceived the primary benefit of mainstreaming to be social and attitudinal for both groups of students, while at the same time they expressed major concerns about instructional aspects of integration. A decade later fewer parents in the sample emphasized the potential social and attitudinal benefits. At the same time a much smaller percentage than in the earlier sample expressed instructional concerns for both student groups. It appears that over the course of a decade parents' reactions have become less extreme and perhaps more realistic. The idealistic view that mainstreaming would result in social benefits to all children had moderated. The gloomy view that mainstreaming would cause instructional harm to children had also moderated.

The types of benefits and drawbacks that were identified, however, were quite similar for both samples of parents. For example, for social/attitudinal benefits, parents stressed the positive outcomes of interactions between mainstreamed exceptional students and their nondisabled peers that will lead to greater tolerance, acceptance, and understanding of individual differences. Concerns about instructional aspects of integration included the view that classroom teachers will devote excessive amounts of attention and time to help mainstreamed students and be less available to teach their own children.

Parents also indicated that teachers were not prepared, trained, nor qualified to work with special needs learners. Instructionally, particularly during 1981, many parents pointed out that students with disabilities will be better served in special classrooms taught by special education teachers. The social/behavioral concerns emphasized the possibility that classmates will be cruel and abusive of the mainstreamed child while on the other hand concerns were expressed about the possibility that classmates may model undesirable behaviors employed by exceptional students. Similar perspectives about the benefits and drawbacks of mainstreaming were also reported by Turnbull et al. (1982) for parents of disabled and nondisabled children in kindergarten settings, and by Hanline and Halvorsen (1989) in their data on integration concerns by parents of students with severe disabilities.

During both 1981 and 1991, parental recommendations and ideas about factors that are necessary for successful mainstreaming correspond with many variables identified by experts and empirical studies as most important to assure effective mainstreaming. Included were teacher factors, i.e., need for training and in-service programs to increase knowledge, skills, and attitudes for working with mainstreamed students, student variables, i.e., type and severity of disability, child's readiness, skills, and attitude, and environmental factors: i.e., class size, adequate support services, and coordination between administrators, teachers, and parents (see for example Bishop, 1986; Hayes & Gunn, 1988; Lewis & Doorlag, 1994; Mitchell, 1994; Simpson & Myles, 1989; Wood, 1992).

There are several implications that emerge from this study. The data presented reveal a need to address the reluctance of many parents (and the general public) to mainstream some groups of exceptional children (i.e., students with mental retardation and behavior

disorders). The limited support given to the inclusion of students with learning disabilities, the largest group currently placed in the LRE (see for example, U.S. Department of Education, 1993) is of particular concern. Concerted efforts are needed to promote and facilitate a better understanding and sensitivity to the needs of these students and the merits of their integration. Considering the controversies and debates surrounding *the schools for all*, or the full inclusion movement, and the strong opposition expressed by respondents in our sample to mainstream students with severe disabilities, parents should be provided with more information about the rationale and philosophy of this movement, about issues and perspectives raised by experts, and with examples of successful approaches for educating these learners in age-appropriate educational settings.

Findings in this study revealed that parents had a basic knowledge of the mainstreaming process. Yet some misconceptions and a lack of understanding of school and classroom procedures and operations were noted (see also, Simpson & Myles, 1989). Ministries of education, state, and local education authorities and schools need to disseminate more information about procedures and approaches being used to promote successful mainstreaming in heterogenous classrooms. For example, provide explanations and examples of models of collaboration and consultation, school-based teams, cooperative teaching, roles of support personnel, and resource teachers, and of instructional practices such as peer-assisted learning, cooperative group learning, and computer-aided instruction, as well as, options of curricular alternatives and behavior management procedures.

The authors would like to mention some limitations of the study associated with the sample, which require caution in the interpretation of the data. The first problem relates to the volunteering of responses to the open-ended questions. We noted that parents who offered written comments tended to express more favorable views about mainstreaming on a number of ratings on the questionnaire than did parents who opted not to provide comments. Second, although the overall response rate in our survey was quite high, about one third of parents contacted did not even bother to return any portion of the questionnaire. Is it possible that this group as a whole harbored the most negative attitudes of all, or were these parents just indifferent? We have no way of knowing.

Researchers may wish to continue to measure changes in perspectives of parents and the general public over time toward inclusion. Especially interesting would be attitude studies of parents of school-age children who were themselves enrolled in school since the time that legislation and regulations related to mainstreaming were implemented.

Considering that mainstreaming is becoming a world-wide movement, researchers may wish to explore and compare perspectives of parents about integration across various nations while considering differences in cultural, socioeconomic, and political variables as well as in policies and legislation pertaining to mainstreaming and inclusion.

REFERENCES

Berryman, J. D. (1989). Attitudes of the public toward educational mainstreaming. *Remedial and Special Education*, **10**(4), 44-49.

Bishop, V. E. (1986). Identifying the components of success in mainstreaming. Journal of *Visual Impairment and Blindness*, **80**(9), 939-946.

Buchner, S., Denholm, C., & Pieterse, M. (1991). Attitudes in integration in preschool: A comparative study of preschool directors in Canada and Australia. *International Journal of Special Education*, **6**, 279-296.

Brulle, A. R., Martin, J. E., & Barton, L. E. (1985). Mainstreaming: Attitudes of parents whose children do not have exceptional needs. *ICEC Quarterly*, **34**(2), 18-24.

Center, Y., Ward, J., Parmenter, T., & Nash, R. (1985). Principal's attitudes toward the integration of disabled children into regular schools. *The Exceptional Child*, **32**, 149-161.

Fuchs, D, S., & Fuchs, L. S. (1994). Inclusive schools movement and the radicalization of special education reform. *Exceptional Children*, **60**, 294-309.

Gottlieb, J., & Corman, L. (1975). Public attitudes toward mentally retarded children. *American Journal of Mental Deficiency*, **80**(1), 72-80.

Gottlieb, J., & Leyser, J. (in preparation). *Parent attitudes toward mainstreaming over a formative decade of special education.*

Green, S. K., & Shinn, M. R. (1995). Parent attitudes about special education and reintegration: What is the role of student outcomes? *Exceptional Children*, **61**, 269-280.

Hanline, M. F., & Halvorsen, A. (1989). Parent perceptions of the integration transition process: Overcoming artificial barriers. *Exceptional Children*, **55**, 487-492.

Hannah, M. E., & Pliner, S. (1983). Teacher attitudes toward handicapped children: A review and synthesis. *The School Psychology Review*, **121**, 12-25.

Harasymiw, S. J., & Horne, M. D. (1976). Teacher attitudes toward handicapped children and regular class integration. *Journal of Special Education*, **104**, 393-400.

Hayes, K., & Gunn, P. (1988). Attitudes of parents and teachers toward mainstreaming. *The Exceptional Child*, **35**, 31-38.

Horne, M. D., & Ricciardo, J. L. (1988). Hierarchy of response to handicaps. *Psychological Reports*, **62**, 83-86.

Jones, R. L. (Ed). (1984). *Attitudes and attitude change in special education: Theory and practice.* Reston, VA: ERIC Clearinghouse on Handicapped and Gifted Children, The Council for Exceptional Children.

Jones, R. L., Gottfried, N. W., & Owens, A. (1966). The social distance of the exceptional: A study at the high school level. *Exceptional Children*, **32**, 551-556.

Jordan, R. R., & Powell, S. D. (1994). Whose curriculum? Critical notes on integration and entitlement. *European Journal of Special Needs Education*, **9**, 27-39.

Jull, K. D. (1989). Some common and unique features of special education in the Nordic countries. *International Journal of Special Education*, **4**, 85-96.

Kauffman, J. M., Gerber, M. M., & Semmel, M. I. (1988). Arguable assumptions underlying the regular education initiative. *Journal of Learning Disabilities*, **21**, 6-11.

Lewis, R. B., & Doorlag, D. H. (1994). *Teaching special students in the mainstream* (4th ed.). Englewood Cliffs, NJ: Merrill an imprint of Prentice Hall.

Leyser, Y., & Bursuck, W. (1986). A follow-up study of regular education students trained in mainstreaming competencies. *Teacher Education and Special Education*, **9**(3), 136-144. ·

Leyser, Y., & Cole, K. (1984). Perceptions of parents of handicapped children about school and parent-teacher partnership. *The Exceptional Child*, **31**, 193-201.

Lipsky, D. K., & Gartner, A. (1989*). Beyond separate education: Quality education for all.* Baltimore: Brookes.

Lowenbraun, S., Madge, S., & Affleck, J. (1990). Parental satisfaction with integrated class placements of special education and general education students. *Remedial and Special Education*, **11**, 37-40 (36).

McDonnell, J. (1987). The integration of students with severe handicaps in regular public schools: An analysis of parent perceptions of potential outcomes. *Education and Training in Mental Retardation*, **22,** 98-111.

Mitchell, D. (1994, January*). Inclusive Education in Asia: Policies, problems, and possibilities.* Keynote address to the International Conference on Special Education: A Noncategorical Approach. Bangkok, Thailand.

Mylnek, S., Hannah, M. E., & Hamlin, M. A. (1982). Mainstreaming: Parental perceptions. *Psychology in the Schools*, **19**, 354-359.

Simpson, R. L., & Myles, B. S. (1989). Parents' mainstreaming modification preferences for children with educable mental handicaps, behavior disorders, and learning disabilities. *Psychology in the Schools*, **26**, 292-301.

Stainback, S., & Stainback, W. (1992). *Curricular considerations in inclusive classrooms.* Baltimore: Brookes.

Turnbull, A. P., Winton, P. J., Blacher, J., & Salkind, N. (1982). Mainstreaming in the kindergarten classroom: Perspectives of parents of handicapped and nonhandicapped children. *Journal of the Division for Early Childhood*, **6**, 14-20.

UNESCO. (1988). *Review of the present situation of special education.* Paris, France. (ERIC Document Reproduction Service NO. ED 312 820.)

U.S. Congress. (1975*). Public Law 94-142, The Education of All Handicapped Children Act.* Washington, DC: Author.

U.S. Congress. (1990). *Public Law 101-476, Individuals with Disabilities Education Act.* Washington, DC: Author.

U.S.Department of Education.(1993).*Fifteenth annual report to Congress on the implementation of Individuals with Disabilities Education Act.* Washington, DC: Author.

Will, M. C. (1986). Educating children with learning problems: A shared responsibility. *Exceptional Children*, **52**, 411-415.

Wood, J. (1992). Adapting instruction for mainstreamed and at-risk students. New York: Merrill, an imprint of MacMillan Publishing Co.

CAREER EDUCATION - EXPECTATIONS OF TEACHERS AND STUDENTS WITH DEVELOPMENTAL DISABILITIES AND MENTAL RETARDATION

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The study sample included 72 graduates who were in a transition period between school and work, and were, at the time of the study, out of school for six months or less. The average age of the study sample was 18.11 years (range: 16 -19.5). Out of the total sample, 63% (N = 54) were male, and 38% (N = 27) were female. The mean IQ was 66.30 (range: 40 -85). At the time of the study, 24 subjects had full time permanent employment while, the remaining 48 subjects were either at home, in vocational rehabilitation centers, or in sheltered employment. In the present study, a very clear orientation regarding career education and vocational ntegration emerged. Both staff and young graduates expressed the opinion that career education priorities are personal and social dimensions such as self concept, functional independence, and social integration, more than employment or income from productive work. This finding confirms the findings of other studies (Bryen et. al., 1987, Herr, 1992) and observations which indicate that, in Israel, professionals and experts regard personal and social aims as the most important aspects of special education and rehabilitation.

Much progress has been achieved in the philosophy, policy and services in the area of vocational rehabilitation and work placement of adults with developmental disabilities. During the seventies and eighties, when the principle of normalization was the most innovative guiding ideology, experts and service providers emphasized the development of

work skills and the teaching of work related skills to persons with disabilities (Parmenter, 1993). Recent years, however, have witnessed a shift of emphasis. While no one will argue the legal right of persons with disabilities for a normal life, their right for a *life of quality* has become the new focal point of concern (Brown, et. al., 1992). The principle of normalization layed down the foundations for the legal rights of the individual person with disabilities to be *like everyone else*. The concept of *quality of life* adds to this the right to *be different*, to lead a life according to unique personal needs and styles. This new outlook is realistically expressed by Smull (1994) in a list of things people with disabilities want their job coaches to know. For example: *Understand how I want to live , Understand the role of work in my life , Do not place me- offer me a job that you think will make sense for me , Do not try to make me independent*.

The *quality of life* concept implies that there is correlation match between the needs and desires of the individual, his/her values and believes, and between the environment (Schalock, et.al., 1994, Schalock, 1989). Thus, professionals are called upon to listen not only to the needs and desires of the individual, but to learn about his values as well and try to understand his views regarding life.

The aim of the present study was to find out the expectations of special education schools graduates regarding career education and vocational integration, and to compare them with their teachers' expectations regarding the most important outcomes of career education. The present study was part of a larger research concerning the school to work transition of final year students and graduates with mental retardation, from all special education schools in Haifa (Reiter, Palnizky, 1994).

Israeli professionals strongly emphasize personal welfare and the broad outcomes of career education and vocational rehabilitation, more so than having work or improving income. The assumption is that if a person with disability has a positive self concept, is socially cared for and is independent, then employment and financial gains will follow.

Indeed, special education and the welfare system in Israel are based on a medical-welfare model which focuses on health and care. This focus is also exhibited in the powers vested in the establishment, be it the educational system or the welfare system, to make decisions concerning plans and programs for the individual child or adult. It is also expressed in the categorical terminology still used by the education system according to which children are allocated to specific special education schools (Herr, 1992).

This model differs markedly from the developmental model and the emphasis placed in the U.S.A. employment and financial gains as the prerequisites for independence and social relations in adulthood (Bryen et. al., 1987).

The recent concern with the role of schools in the preparation of students for employment is demonstrated by the numerous follow up studies done in the past few years. Most of them focus on the distribution of post special education schools, and special education classes graduates in various places of work and in vocational preparation courses (Sitlington et. al., 1993, Thomson et. al., 1993). Findings indicate that only a small percentage of graduates find jobs in the open market. Most graduates of special education

schools or classes within regular education end up in low level jobs, often below their competencies.

The importance of personality attributes and the major role that individual personal characteristics play in successful vocational adjustment has been demonstrated by research progress (Reiter, Friedman, Molcho, 1988). Studies in which comparisons were made between individuals with developmental disabilities who were vocationally successful and individuals who did not adjust to life in the work force, consistently showed that it was not the lack of vocational skills that distinguished between the *successes* and *failures*. Rather, the low motivation and inadequate behavior exhibited by high dependency, moodiness, passivity, and helplessness, which usually lead to failure (Bryen et. al., 1987, Reiter, Asgad, 1988).

One major implication of the above findings for schools is that changes of emphasis should be made in career education. Instead of teaching students mostly *normal* working skills and *proper* habits, career courses should encourage students to apply self initiative and to be assertive in their demand for meaningful involvement in work. Schools should strive to develop the students' personal autonomy and enhance the students' awareness of their own expectations and views concerning their life in the work force (Dillon, 1993).

The aim of modern career courses should indeed be to develop self initiative in students so that they may become personally involved and motivated to look for work, find jobs, and persist at their work. Supported employment should not be a service that is provided to individuals who lack personal initiative in finding jobs, but rather assistance given at an advanced stage of adjustment to work, indeed after the person with disabilities has been personally active in finding a suitable job.

A basic assumption of the present study was that an understanding of teacher and student expectations are regarding career education and vocational integration is the first step in planning a student centered career development program.

Method

Subjects

Four special education schools for students with developmental disabilities and mental retardation were chosen for the present study.

The study sample included 72 graduates who were in the school and work transition period, and were, at the time of the study, out of school for six months or less. The average age of the study sample was 18.11 years (range: 16 - 19.5). Out of the total sample, 63% (N = 54) were male, 38% (N = 27) were female.

Mental retardation was the main disability of 84.7% of the study sample, while the major disability of the remaining 15.3% was minimal brain damage. 43% of the study sample had additional disabilities such as physical handicaps, sensory disorders and speech impediment. The mean IQ was 66.30 (range: 40 - 85).

At the time of the study, 24 subjects had full time permanent jobs. The remaining 48 subjects were either at home, in vocational rehabilitation centers or in sheltered employment.

From table number 2 it appears that, in the area of improving income level, mean scores obtained from one school's staff were significantly lower than the mean scores obtained from the other three schools. The latter were very similar in scoring this area. It should be noted that the school where staff members gave the lowest rating to *income level* receives the more severely developmentally disabled students.

Permanent employment was the other area in which significant differences appeared. The variability between schools on this topic was higher than regarding the area of income.

Next, we calculated student expectations of career education as expressed by their ratings of priorities. Mean scores obtained from the students in each of the areas of career education are presented in Table number 3.

Table 3
Graduates rating of priorities in career education
mean scores and standard deviations

Outcomes	All graduates (N=720)	
	M	S.D.
Independance	9.6	1.15
Social Relations	9.35	1.27
Self Concept	9.21	1.10
Work Skills	9.21	1.03
Work Satisfaction	9.11	1.21
Permanent Work	8.45	1.44
Income	8.17	1.47
Autonomy	8.14	1.52

From table 3 it appears that students rated *independence, social integration*, and *self concept* as the three most important areas in their career education. They, like the staff, rated permanent employment and improving income as being of low priority. Work skills and satisfaction from work were granted only moderate importance.

We continued to compare teacher and student ratings of priorities in career education. Mean scores assigned by students and teachers (on the second round) responses are presented in table number 4.

Several significant differences appear between teacher and student perceptions of the importance of the different career education benefits. Teachers gave higher ratings to self concept and autonomy. Students, on the other hand, gave significantly higher ratings than did teachers to the four areas which are specifically concerned with work: skills, satisfaction, permanent employment and income. In spite of the significant differences in emphasis, no differences appeared on the general pattern of priorities.

Apart from the outcome of *autonomy*, which was placed as least important by the students, and as moderately important by teachers, all other areas were rated similarly by both groups.

Table 4
Mean scores, standard deviations and F values of the
differences between school staff and graduates rating of
priorities in career education

Outcomes		School staff (N=53)	Graduates	F	P
Independance	M	9.85	9.60	2.33	0.129
	S.D.	0.41	1.15		
Self Concept	M	9.66	9.21	7.39	0.007
	S.D.	0.65	1.27		
Social Relations	M	9.34	9.35	0.00	0.968
	S.D.	0.65	1.27		
Autonomy	M	8.81	8.14	7.91	0.006
	S.D.	0.98	1.52		
Work Skills	M	8.72	9.21	7.39	0.007
	S.D.	0.95	1.03		
Work Satisfaction	M	8.30	9.11	18.59	0.000
	S.D.	0.75	1.20		
Permanent Work	M	7.91	8.49	5.95	0.016
	S.D.	1.11	1.44		
Income	M	7.64	8.17	5.50	0.021
	S.D.	0.81	1.47		

One third of the student group was fully employed in the open market at the time of the study. Comparisons were made between them and those who were unemployed and were either at home or in sheltered workshops. Presented in table number 5 are the mean scores gathered from the two groups.

From table 5 it appears that differences existed between graduates who were employed and those who were not in two related areas, *autonomy* and *independence*. Graduates who were unemployed gave higher ratings to being independent and being autonomous than did graduates who had full time jobs.

The pattern of priorities in career education benefits, however, was similar. Social integration, self concept, work skills and independence were rated as being the most important outcomes while work related areas such as satisfaction, permanent employment, and income were rated least important. Autonomy was regarded by both the employed and the unemployed graduates as least important.

Table 5
Priorities in career education, rated by employed and
unemployed graduates, mean scores and standard deviations

Outcomes	Unemployed Graduates (N=48)		Employed Graduates (N=24)	
	M	S.D.	M	S.D.
Independence	9.79	0.87	9.21	1.50
Social Relations	9.35	1.28	9.33	1.27
Work Satisfaction	9.21	1.07	8.92	1.44
Work Skills	9.19	1.00	9.25	1.11
Self Concept	9.17	0.97	9.29	1.33
Permanent Work	8.65	1.41	8.17	1.49
Autonomy	8.40	1.35	7.62	1.74
Income	8.21	1.52	8.08	1.41

Discussion
The most important innovation of the present study is in the systematic investigation of subjective variables that represent different orientations of career education and vocational integration among special education school graduates and teachers.
With the present day emphasis in special education and rehabilitation on quality of life issues (Brown et. al. 1989) it is important to find ways to investigate variables such as expectations, opinions, attitudes and belief systems.
Indeed, as was shown by Schalock (1988), it is the belief
system that provides the link between individual needs and
environmental conditions.
In the present study a very clear and unanimously accepted orientation of career education and vocational integration emerged in four special education schools in Israel. Both staff and young graduates expressed the view that the priorities in career education are not placement in permanent work or income from productive work, but rather personal and social aspects such as self concept, functional independence and social integration.
These findings confirm other studies (Bryen et. al., 1987, Herr, 1992) and observations according to which, in Israel, professionals and experts in Israel regard personal and social aims as the most important aspects of special education and rehabilitation.
This is in marked contrast with the fact that three out of the four schools investigated are officially defined as being prevocational high schools. The formal descriptions of the schools' aims and goals indicate that the most important aim is that of the vocational

integration of graduates in the community and in the open market, (A guide for special services, Haifa and the North, Joint-Israel, 1985/6). Only one school, which received the more severely developmentally disabled students indicated that its formal aim was to prepare graduates for, social integration and provide general preparation in daily living skills.

One explanation for the discrepancy between the officially declared emphasis on vocational integration of special school graduates the low emphasis placed by teachers and students on this goal may be that professionals and experts in Israel are exposed to the latest and up-to-date literature on vocational rehabilitation which presents the model that emphasizes the supremacy of vocational placement. Thus, the discrepancy found between official declarations and teacher opinions concerning the most important aims of their career education program can be explained by the difference between their model of rehabilitation, according to which the independent and socially integrated person can find work independently, and international literature emphasizing vocational placement as being the vehicle for independence and social integration.

Another discrepancy was found between the emphasis on personal and social aspects. Qualities such as functional independence and the self concept are declared as being important outcomes of career education, while at the same time autonomy, defined as having an internalized set of a value system according to which one makes decisions, chooses among alternatives, and judges one's life events, received a very low priority rating among graduates, and only a moderate priority among teachers.

Indeed, the finding which indicates that even among graduates who were employed, autonomy was rated very low should be taken seriously as a sign of conformity and dependency on the educational system and, later on, on the social welfare services. Findings of the present study indicate a strong similarity between student and teacher viewpoints regarding the most and least important areas of career education. This finding points to the strong influence teachers have on student attitudes and values. Thus, both teachers and students placed low priority on vocational placement. The result was that only one third of the special education school graduates were employed six months after graduation. This fact raises a serious doubt as to the validity of the model followed by Israeli teachers according to which social integration and independence, rather than autonomy or employment, are prerequisites for later vocational integration.

Our findings indicate that career education should place the highest priority on finding employment and on providing work experience for students and regard both being prerequisite for independence.

Our findings also point out clearly the conceptual difference between independence, which is functional and concerns daily living skills, and autonomy, which refers to an internalized value system. The principle of normalization is widely acknowledged in Israel, and teachers emphasize the achievements of functional independence. This, however, is not followed by a similar emphasis on quality of life variables such as the ability to choose, the development of motivation based on student participation in planning their own future, and meaningful

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The teacher sample included the entire staff of the four schools involved in the research. A total of 53 grade teachers, headmistresses, school counsellors, and special subjects' teachers, were interviewed. All staff members had professional training in special education.

Procedure

A previously designed questionnaire was used to find out student and teacher priorities and expectations of career education (Bryen et. al., 1987). For the purpose of the present study, the questionnaire was re-worded to apply to career education rather than vocational rehabilitation.

The questionnaire designed was based on the Delphi Process - a procedure for gathering evaluation and consensus of action or plan from service providers, professionals, policy makers, and consumers. This procedure is especially suitable for areas in which information is provided by value judgments based on attitudes and believes, rather than by *hard facts* (Linstone and Turoff, 1975).

The questionnaire investigates 8 main areas of desired career education benefits:

- stable employment
- improved income level
- personal work satisfaction
- adjustment to work skills
- personal autonomy
- independence
- social integration
- self-concept

Respondents were asked to rate each area according to their opinion regarding its importance in career education. Ratings were done on a scale from 1 (low priority) to 10 (high priority) on each of the items presented.

Findings

The Delphi process was used to find out the schools' staff perceptions of the most desired outcomes of career education. Staff members were asked to answer the priorities questionnaire twice. Following the first administration, the mean scores of each of the areas investigated by the questionnaire were calculated and recorded. In the second round, respondents were supplied the average score each item received, and were then asked to rate their perceived priorities in the career education of students again.

In table number 1 schools' staff mean scores in the first and second rounds are presented.

From Table 1 it appears that the staff considered the three most important benefits of career education to be *independence, self concept* and *social integration*. The three least valued benefits were *income level, stable employment* and *work satisfaction. Autonomy* and *work skills* were in the middle.

Comparisons between the first and second rounds of the questionnaire administration, revealed that teachers tended to give higher scores in the second round on all items except

one - social integration. The pattern of priorities remained similar in the two rounds.

Table 1
Mean scores and standard deviations of ratings of priorities in career education
perceived by teachers - first and second rounds

	Round A (N= 53)		Round B (N=53)	
Objectives	*M*	*S.D.*	*M*	*S.D.*
Independance	9.30	1.49	9.85	0.41
Self concept	9.09	1.43	9.66	0.59
Social relations	8.72	1.61	9.34	0.65
Autonomy	8.17	2.01	8.81	0.98
Work skills	8.36	1.74	8.72	0.95
Work satisfaction	8.04	1.87	8.30	0.75
Permanent work	7.74	2.42	7.91	0.81
Income	7.45	2.49	7.64	0.81

School staff regarded areas concerned with the individual, such as being independent, having a positive self concept and being socially integrated as having the highest priority in career education and being more important than areasconcerned with actual work, such as being employed or improving income level. The areas concerned with personal variables, such as having work satisfaction, having work skills and being autonomous were rated as having only moderate priority. Since four different schools took part in the present study, there was a possibility that significant differences exist between them in their expectations of career education. Comparisons between the mean scores of the four schools' staff revealed only two significant differences in the areas concerned with employment.
Table number 2 presents the mean scores obtained by the four schools' staff in the areas of *income* and *permanent employment*.

Table 2
Mean scores, standard deviation and F values of priorities in which differences were found between the four schools' staff

Outcomes	Study Group	School A (N=15)	School B (N=12)	School C (N=12)	School D (N=14)	F	P
Income	M	7.87	7.00	7.83	7.79	3.78	0.016
	S.D.	0.64	0.85	0.83	0.70		
Permanent	M	8.40	7.17	8.50	7.50	5.73	0.002
	S.D.	0.83	0.94	0.67	1.34		

involvement in life experiences which enhance the ability to judge one's life events according to individual needs (Dillon, 1993).

The finding that graduates placed *autonomy* as least important among the possible outcomes of career education could mean that they simply did not understand the term.

This, however, points to the fact that there was not a special program that dealt with issues concerning autonomy.Any career education program for students with developmental disabilities and mental retardation should include specific reference to processes that underlie personal autonomy. The differences in terms between independence and autonomy should be delineated, explained, and their implications in life experiences practiced.

REFERENCES

Brown, R.I., Bayer, M.B., & Brown, P.M. (1992). *Empowerment and developmental handicaps, choices and quality of life*. New York: Chapman & Hall.

Bryen, D.N., Newman, E., Reiter, S., & Hakim, S. (1987). *Barriers to employability of persons with handicaps: A bi-national study in the United States and Israel*. Philadelphia: Temple University Developmental Problems Center, UAP.

Dillon, M.R. (1993). Morality and freedom: Challenges to a field in transition. *Mental Retardation*, **31**, iii-viii.

Herr, S.S. (1992). Human rights and mental disability: Perspectives on Israel. *The Israel Law Review Association*, **26,** 142-194.

Linstone, H.A., & Turoff, M. (1975). *The delphi method techniques and applications*. Massachusetts: Addison-Wesley.

Parmenter, T.R. (1993. International perspective of vocational options for people with mental retardation: The promise and the reality. *Mental Retardation*, **31**, 359-367.

Reiter, S., Friedman, L., & Molcho, M. (1985). Motivation, vocational interests and job satisfaction of mentally retarded adults. *International Journal of Rehabilitation Research*, **8,** 19-28.

Reiter, S., Asgad, B. (1988). Career education, developing the work personality of children and young adults with mental retardation, the example of *Even Hen*, Israel. *Issues in Special Education and Rehabilitation*, **5,** 101-114.

Reiter, S., Palnizky, A. (1994). *Special schools graduates - vocational integration in the community*. Paper presented at the International Conference on Developmental Problems, Beit Issie Shapiro, Ra'anana, Israel.

Schalock, R.L. (1989). The concept of quality of life in community-based mental retardation programs. *Issues in Special Education & Rehabilitation*, **5**, 5-32.

Schalock, R.L., Stark, J.A., Snell, M.E., Coulter, D.L., Polloway, E.A., Luckasson, R., Reiss, S., & Spitalnik, D.M. (1994). The changing conception of mental retardation: Implications for the field. *Mental Retardation*, **32,** 181-193.

Sitlington, L.P., Frank, R.A., & Carson, R. (1993). Adult adjustment among high school graduates with mild disabilities. *Exceptional Children* , **59**, 221-233.

Smull, M. (1994). What I would want my job coach to know and do. *News & Notes*, 7, 3-4.

Thomson, G.O.B., Ward, K., & Dyer, M. (1992). Pathways to adulthood for young people with special educational needs. *Issues in Special Education and Rehabilitation*, 8, 51-62.

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