All Students Belong: Inclusive Education for Students with Severe Learning Disabilities

INTRODUCTION

Diversity is part of the normal range of human experience (Ballard, 1997), and inclusive education caters for diversity by recognising and differentiating according to the needs of all students, regardless of ability. No classroom is truly ‘inclusive’ unless it provides for the full range of individual difference. Such a philosophy has not always prevailed; however, as, until the last quarter of this century, people with severe and multiple disabilities were thought incapable of profiting from education and were excluded from schools altogether. Most spent their lives in training centres, at best learning a few basic daily-living skills. Since the early 1970s, however, there have been changes in our thinking about disability. These include:

- a recognition of the rights of all individuals with disabilities, no matter how severe, to participate in a community life that is as ordinary as possible
- a belief, based increasingly on research evidence, that all children are capable of learning.

Students with severe disabilities are a very small proportion of the school population, no more than two or three per thousand (Browder et al., 1995), and less than 10% of students with special needs (Goessling, 1998). Their disabilities arise from a variety of causes, including genetic or chromosomal anomalies, maternal illness, drugs, exposure to radiation or certain chemicals during pregnancy,
birth trauma involving injury or oxygen deprivation, or illness or injury during infancy. Such students often have severe impairments in learning, including vision or hearing problems, physical-motor difficulties and limited mobility, and significant language delays. Many may never learn to speak and may need to rely on alternative methods of communication. Some may have behavioural or emotional difficulties that arise directly from their neurological impairments. Health problems, sometimes life-threatening, may also be present. Despite such disabilities, people with severe and multiple disabilities have the potential to lead satisfying lives in the community, given appropriate support.

Their significant learning disabilities, combined with intensive support needs, led to an assumption that it was impractical to include such students in regular classes (Putnam, 1993). They were largely excluded from initial moves to integrate students with disabilities, and remained in segregated schools and classes following a curriculum that had little resemblance to that followed in the mainstream. Special education developed its own language, encompassing such terms as precision teaching, task analysis, baselines and ecological analysis (Goessling, 1998), cueing, prompting, assisting and reinforcing. It has been argued that this culture has served to maintain a belief that mainstream teachers could contribute little that was useful to their development, and that placement in regular classrooms would have minimal benefits.

The major thrust towards inclusive education has come from parent advocacy groups for people with severe disabilities, who insist on the right of all students to be included in age-appropriate classes in their neighbourhood schools. Parent advocacy requires a strong commitment, since it may mean ‘taking on the system’ if regular class placement is not normally an option (Hunt & Goetz, 1997). The motivation for this commitment includes:

- the child’s need for a sense of belonging, and social justice
- opportunities to model age-appropriate behaviour
- opportunities to develop friendships, and to learn social skills in the setting in which they will ultimately be applied - the mainstream community (Jenkinson, 1993)
- less negative attitudes as the community learns to accept the presence of people with disabilities without embarrassment or fear.

Both research and anecdotal evidence support the belief that inclusive education can work for students with severe disabilities (Lipsky & Gartner, 1997). While many parents still choose segregated educational settings (Jenkinson, 1998), the pertinent question is no longer ‘Can students with severe disabilities be included in regular classes?’ but ‘What factors best ensure successful education of students with severe disabilities in inclusive classrooms?’ These factors encompass:

- the goals and expectations of education
- school and classroom climate
- curriculum and classroom support
- behavioural issues.

The above factors are explored in some depth in the remainder of this paper.

**Goals and Expectations**

Goals and expectations for students with severe disabilities have changed with changing philosophies of education, as they have for all students. Early advocates of inclusion maintained that the goals of education were the same for all students, emphasising the following:

- Acquisition of skills and subject-specific knowledge required for community participation (Roach, 1998). Special educators maintained that these skills could be identified and taught in a segregated environment; inclusionists argued that skills should be taught in the environment in which they are to be applied - that is, the mainstream community.
- Contributing to the community in terms of economic productivity. This goal led to an emphasis on development of employment skills
in pre-vocational programmes, with the ultimate aim of open employment with appropriate support. Such productivity-related goals place a value on material or economic rather than humanistic aspects of education (Ware, 1990), ignoring the reality that full economic independence is an unrealistic goal for most students with severe disabilities.

The setting of unrealistic goals in terms of future independence will almost certainly lead to the perception that inclusion has failed. Goals and expectations should therefore be adapted to fit individual students. More realistic goals include:

- the achievement of a satisfying occupation
- the ability and opportunity to make choices
- the attainment of essential self-care skills that are within the student’s capacity and that enhance his or her dignity and quality of life (Jenkinson, 1997).

Kliwer (1998) has argued that a person only learns to be a member of a community by being a part of it, and that the acquisition of a specific set of skills should not be a prerequisite for what is essentially an individual’s right.

**School and Classroom Climate**

Studies of inclusive education demonstrate that positive acceptance of difference is essential for its success. A culture that accommodates and values diverse needs and ways of learning, in which teachers and students work in partnership, with the teacher as facilitator of the student’s learning, allows students to progress at their own pace (Roach, 1998). However, negative attitudes on the part of principals and regular and specialist teachers, and doubts that the needs of students with severe disabilities can be met in regular classrooms, remain the significant barriers to successful inclusion (Downing et al., 1997).

Research reviewed by Hunt and Goetz (1997) confirms positive change as class teachers become more experienced in including students with severe disabilities. Teachers develop greater confidence in interacting with students. High teacher self-efficacy (a belief in their ability to handle new situations) is related to classroom practices that foster inclusion of students with severe disabilities, including:

- commitment to educational innovation
- flexibility
- acceptance of new roles and responsibilities
- a preference for working collaboratively with other professionals on student-related concerns (Hunt & Goetz, 1997; Soto & Goetz, 1998).

However, in the most successful classes, a number of additional features are evident.

- The class teacher retains overall responsibility for the student, even if supported by a special education teacher and a teacher aide.
- Staff responsibilities are negotiated and clearly defined.
- Classroom modifications are designed to emphasise social and academic participation wherever possible, using a flexible approach; for example, classroom routines and physical environment may be altered to allow the student to sit near peers (Janney & Snell, 1997).
- Special education teachers assimilate into the mainstream culture, establish a new identity, and reappraise their values (Goessling, 1998).
- Class teachers and special education teachers collaborate to resolve practical problems, such as transport and mobility issues.

Peer attitudes and acceptance, no less than attitudes of school staff, are crucial for successful inclusion. Fisher et al. (1998) identified five factors important in the development of positive peer attitudes towards students with severe disabilities.

- Contact is well established as a positive factor, although the type of contact also needs to be considered.
- Adequate information, rather than no information or misinformation, helps eliminate negative behaviour or insensitive comments.
- Giving students with severe disabilities equal status with their peers creates a perception that they belong in a class.
Skill acquisition in the classroom reinforces the principle that all students are there to learn.

Opportunities for classmates to observe functional rather than stereotyped, negative behaviours avoids a perception that these students are helpless, or objects of pity.

Schnorr (1997) examined the participation and membership of students with moderate to severe disabilities in middle and high school classes, and concluded that few met the criterion for ‘belongingness’ of having a special group of friends. Students apply the same criteria for ‘membership’ to classmates with severe disabilities as they do to non-disabled students (Williams & Downing, 1998), and may take the attitude that it is up to students themselves to join a group. Students who are new to a class, have poor attendance, do not participate fully in class activities, are ‘troublemakers’ and likely to be perceived by their peers as non-members (Williams & Downing, 1998). A perception by classmates that the student belongs in the class is fostered by:

- having a place in the classroom
- being positively accepted by classmates
- not being made fun of or ‘put down’
- having a group of friends
- contributing to class projects
- being respected by teachers
- being treated by teachers as far as possible the same as other students.

Research has consistently demonstrated that inclusive classrooms foster increased social interactions and engagement in activities with non-disabled peers (Hunt & Goetz, 1997). Although a disproportionate number of these interactions are non-reciprocal, involving assistance by peers to the student with a disability (Lewis, 1995; Hunt & Goetz, 1997; Jenkinson & Hall, 1999), they reflect the support offered by society to people whose needs are greater than those of the majority. Parents of non-disabled children in inclusive classrooms report benefits in terms of their child’s social-emotional growth, and the absence of negative educational outcomes (Giangreco et al, 1993, cited in Hunt & Goetz, 1997). Teacher intervention to encourage productive interactions between students with severe disabilities and their peers is valuable (Hunt & Goetz, 1997). For example, class teachers may provide information to peers about how a communication device works in the context of a specific activity.

Cook and Semmel (1999) suggest that classmates extend acceptable boundaries for performance to encompass the obviously atypical performance of these students. The extension of behavioural boundaries results in greater tolerance for difference in classmates generally.

Curriculum and Classroom Support Issues

Students with severe and multiple disabilities have significant problems with learning.

- They take longer to grasp new skills or concepts.
- They require intensive practice or a breakdown of tasks into minute steps that can be taught one at a time.
- They will be unable to learn many abstract skills and concepts that are an essential part of an academic curriculum.
- They may need to be specifically taught many of the basic self-care, social and community-living skills that most people perform daily without formal instruction.
- New skills may not be readily generalised to new situations, so will need to be taught in several different environments.
- The presence of sensory impairments and language delays means that alternatives to conventional forms of instruction may have to be devised.
- They require intensive support on a one-to-one basis.

These difficulties have led to a view that students with severe disabilities require a curriculum that is somehow different from that followed by the majority of students, with priority given to the
teaching of functional living skills (Male, 1998; Wehman, 1997). A functional curriculum focuses directly on practical skills required to function in a range of living environments (family, the community, school or work). A functional curriculum may include:

- basic self-care and hygiene
- domestic skills
- safety
- community access
- using public transport
- social interaction, recreation and leisure
- at secondary level, pre-vocational skills.

Ideally, a functional curriculum should enhance students’ existing strengths and competencies so life becomes less challenging (Wehman, 1997), with an individualised, yet flexible, set of educational objectives based on the student’s needs and future goals.

There is currently some debate about a functional life-skills curriculum for students with severe disabilities. Surveys of parents indicate generally low expectations of future independence in either work or living situation (Male, 1998). Parents give equal importance to skills required in forming friendships and social relationships, such as sharing games or equipment, initiating interactions, and co-operating (Hamre-Nietupski et al., 1992). The focus of current research on social interaction reflects a move away from a perception that functional skills are necessary to promote community inclusion, to a view that community participation is a right and should not be dependent on skills acquisition (Nietupski et al., 1997). Nietupski et al expresses serious concern over this change in emphasis, and advocates a better balance between academic, social, and functional aspects of the curriculum:

‘... although belonging, participating and valuing are important elements in an effective education program, they must be balanced by teaching the life skills individuals need once school ends ... To promote regular class activities without regard to life skills may have serious repercussions in adulthood. Likewise, acquiring functional life skills or academics without developing social relationships can lead to a life of isolation’ (1997 pp49-50).

Criticisms of functional education have been reinforced by the widespread introduction of a mandatory core curriculum. This poses dilemmas for students with severe disabilities, for whom many aspects of the core curriculum, especially at secondary level, are seen as irrelevant. Perceived benefits of participation in a core curriculum by students with severe disabilities include:

- the recognition that ‘planned dependence’ may be a more realistic goal for students with severe disabilities than full independence
- an end to excessive time spent on teaching functional skills that may never be fully mastered
- greater emphasis on enjoyment of learning for its own sake
- broadening of educational experiences for students with severe disabilities as they take their place alongside classmates in a range of learning areas.

However, these benefits will occur only if support is provided to adapt both the curriculum and teaching strategies to facilitate their participation.

Supports that occur naturally in the classroom environment are least intrusive. Teaching strategies can be reorganised to capitalise on ‘people support’ (Onosko & Jorgensen, 1998), either from classmates or from adults in the classroom setting. Support from adults may come from team teaching, or from a collaborative approach in which a qualified special education teacher provides expertise in curriculum adaptations and instructional techniques, while the class teacher maintains overall responsibility for curriculum implementation (Jenkinson, 1997). In a more direct approach, the special education teacher adopts an instructional role with the student. This approach is least preferred because it implies a parallel curriculum that is not fully inclusive.

Class teachers prefer to rely on the moral support provided by special education teachers in the form of shared goals and a framework for including the student in the regular classroom, as
well as the provision of resources and technical support through teamwork (Hunt & Goetz, 1997). Least preferred are:

- goals that are irrelevant in the regular classroom
- assistance that is intrusive, disruptive, or too technical and specialised
- withdrawal of the student
- the presence of multiple specialists and visitors associated with the student
- use of activities and materials that are not typical of the regular classroom.

Teacher aides can support students with severe disabilities in the regular classroom by fulfilling a variety of functions:

- personal care
- assistance with mobility or communication
- curriculum adaptations
- implementing one-to-one instruction under the direction of the class teacher
- facilitating social interactions.

Not all tasks need to be related to the individual student–teacher aides may also be used to relieve class teachers of routine tasks or support class teaching. Assigning a teacher aide solely to an individual may actually interfere with the development of social relationships, as interdependence and co-operation should be balanced with development of self-reliance and independence (Onosko & Jorgensen, 1998).

Support from classmates includes peer tutoring, student-initiated interactions and special friends. Peer tutoring has the added benefit that it involves classmates in a constructive activity and helps to foster positive attitudes towards students with severe disabilities (Lewis, 1995). Co-operative learning in small groups encourages social interactions in a positive climate, particularly if projects are structured so that each student contributes in ways that are compatible with their abilities. Such activities need to be carefully planned and are more likely to be successful if students are given social skill instruction in advance (Putnam et al., 1989).

Putnam (1993) reviewed several studies of co-operative learning projects involving students with severe disabilities in primary, secondary and recreational settings, including science projects, art, cooking, music, academic and pre-academic tasks, and group recreation activities. Co-operative learning was generally associated with:

- significantly higher levels of positive social and verbal interactions
- greater interpersonal attraction, indicated by choices on a sociometric questionnaire
- academic gains by all students comparable to those achieved in competitive and individual situations.

Curricular adaptations, or modifications to instruction, curricular content or materials are crucial in enabling students with severe disabilities to participate wholly or partly in class activities. Adaptations may help the student compensate for intellectual, physical, sensory or behavioural problems, and should not be seen as an end in themselves. The following adaptations were the most effective:

- build on existing skills to develop new skills
- adjust content to make it more concrete, compatible with student competencies, and relevant to the student’s current and future life
- take the student’s learning style into account (Udvari-Solner & Thousand, 1997).

Learning materials and instructional methods can be modified in a number of ways.

- Students use the same materials but interact with only part of them, for example by completing only a proportion of learning tasks or set exercises.
- Complete content is retained, but the format of the material changed, for example by re-phrasing sentences, asking questions that challenge the student at an appropriate level, or require multiple-choice rather than open-ended responses.
- Teaching materials are supplemented with examples and models.
Different materials are substituted, such as audiotaped rather than printed material (Onosko & Jorgensen, 1998).

Advances in behavioural technology, such as methods of prompting and graduated guidance, are incorporated into instructional strategies (Browder et al., 1995).

Computer technology has been hailed as offering new possibilities for enhancing the accessibility of the curriculum for students with severe and multiple disabilities. However, not all technology is easily accessible to people with severe disabilities, and unless used appropriately may act against inclusion rather than enhancing it (Pressman & Blackstone, 1997).

Age-appropriate software designed to meet the needs of students with severe disabilities may not be readily available.

Difficulties with fine motor control, visual problems, poor control of eye gaze, lack of reading skills and difficulties in establishing links between cause and effect may all affect the use of computers (Esposito & Campbell, 1993).

Modifications can be made to a standard keyboard to suit the student's positioning, by using colour to assist identification of keys, by allowing some keys to lock, or using overlays or touch-sensitive keyboards (Male, 1997). Alternatives to keyboard use include a detachable touch window. There is a need for careful assessment of the individual student, for training in the use of specific programs where appropriate, and for adapting both software and hardware to suit the individual's learning style.

Not all technology requires the use of a computer. One of the most effective uses of technology is the development of augmentative communication devices. Owens (1996) divides these devices into low and high technology aids.

Low technology, or non-electronic devices, may include cards containing graphic symbols. For example, the COM PIC system developed in Australia uses pictographs which enable students to make requests, express needs or opinions, make choices, and contribute to discussions, using a communication board, cards or a computer. Because it is based on widely recognised symbols, COM PIC can also be used to foster social interaction through communication with classmates.

High-technology devices include electronic keyboards for typing out messages, scanners, switching devices and computerised voice output. Most of these may be less appropriate for students with severe disabilities, and again careful assessment will be needed to make the best use of appropriate aids.

Clearly, there is no one best instructional strategy for students with severe disabilities, any more than there is for the majority of students. Behavioural techniques place the student in a relatively passive role, and their use may best be limited to some essential skills and knowledge, such as safety concerns (Marvin, 1998). Marvin advocates the use of interactive methods in which students take the initiative and learn through engagement with adults and their environment. Objectives may be less precise, but at least students are learning in the more complex social context in which performance ultimately takes place.

Finally, a broad and flexible view of the core curriculum may be adopted so that skills and knowledge considered necessary for students with severe disabilities are slotted into key learning areas (Jenkinson, 1997). For example, safety and community access may be included under social studies; special communication methods may be included under languages other than English. Carried to extremes, though, this flexibility may result in students with severe disabilities following what is essentially a parallel curriculum. Strategies for including all students in these activities may need to be developed.

Assessment is a logical outcome of a curriculum, and the introduction of a standard curriculum has also meant standardised assessment, often by formal testing, which clearly poses problems for students with severe disabilities. Various ways around this requirement have been found, including:

- Introducing additional levels of assessment broken down into small steps that reflect targeted objectives.
- exempting students from assessment altogether (Jenkinson, 1997)
- designing individual evaluation plans - for example, using oral rather than written tests, allowing multiple-choice answers, or shortening assignments
- evaluating effort, participation and behaviour, or giving extra credit for doing extra projects (Onosko & Jorgensen, 1998).

**CHALLENGING BEHAVIOUR**

The disproportionate prevalence of challenging behaviour, or behaviour that is considered unacceptable for the individual’s age and environment, has been one of the most forceful arguments against the inclusion of students with severe disabilities in regular classrooms. Challenging behaviour includes:

- relatively harmless but disruptive actions such as being out of a seat, wandering around, or calling out
- more serious behaviour that, particularly if it is aggressive, may threaten the safety of other students, the student with a disability, or teaching and other staff
- ‘stereotypical’ behaviour that appears purposeless and involves repetitive body movements such as hand-flapping, head-banging or body-rocking, or the adoption of unusual postures, which can be distracting and interfere with more productive behaviour; neither the cause nor the function of stereotypical behaviour is fully understood.

Classroom disciplinary strategies usually employed by teachers may be of little help in dealing with challenging behaviour. Indeed, Weigle (1997) found that both special and regular class teachers had limited knowledge of behavioural principles, lacked both skill and time to implement interventions targeted at specific behaviours, and were unlikely to use effective behaviour-management techniques to deal with challenging behaviour. An approach based on principles of positive behaviour support was proposed, focusing on changes in lifestyle to reduce unacceptable behaviour. The model incorporates functional analysis of behaviour, and attempts to build interventions that recognise its complex nature, including the context in which behaviour occurs. If the function of the behaviour in the individual’s repertoire is understood, it can be replaced with more acceptable behaviour that serves the same function (Browder et al, 1995). Weigle’s approach is well-argued, but requires further research into its efficacy, as it means that teachers need to accept that a change in their system of handling behavioural problems in the classroom is necessary. Like other aspects of inclusive education, adaptation of the system, rather than adaptation of the student, is seen as the key to successful intervention.

**CONCLUSION: OVERCOMING DOUBTS**

Despite evidence that inclusive education can work for students with severe disabilities, there are still significant elements of doubt (Chesley & Calaluce, 1997). A ‘culture of segregation’ continues to prevail in some schools or education authorities (Mamlin, 1999). Parents, too, retain doubts about the feasibility of including students with severe disabilities (Jenkinson, 1998; Male, 1998), though often this doubt stems from lack of experience in inclusive settings, or lack of commitment on the part of schools. The very real health needs of many students with severe and multiple disabilities, and the provision of health and therapy services in the regular school setting, pose additional dilemmas that need to be resolved in the context of a resource pool that is not unlimited. Technology offers solutions to many of the issues faced in the inclusive classroom, but we need to be cautious about being over-optimistic.

There are numerous dilemmas in inclusive education, particularly for students with severe disabilities, on which consensus has not yet been reached (Fried & Jorgensen, 1998). Many of these dilemmas apply to education generally, and include questions about a defined body of knowledge that
all students should acquire, whether knowledge should be discipline-based or problem-centred, and how to individualise educational programmes without lowering standards. In a recent debate about inclusive education for students with severe disabilities (Chesley & Calaluce, 1997; Kliwer, 1998, 1999), Kliwer (1998) maintained that education itself is about community membership, and that membership can only be learned by being part of that community. Such arguments are the strongest for including students with severe disabilities in the regular classroom.

References


Downing, J. E., Eichinger, J. & Williams, L. J. (1997) Inclusive education for students with severe disabilities: comparative views of principals and educators at different levels of implementation. Remedial and Special Education 18 133-142.


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