

Chapter 3

THE MAINSTREAMABLE



WHO ARE THE MAINSTREAMABLE?

Some lack of clarity about mainstreaming extends to the question of who is to be mainstreamed. It is apparent to all that the concept includes those exceptional children traditionally served by the public schools. There is controversy over whether the concept also includes children presently enrolled in county or state facilities outside of the school's dominion. The movements of de-institutionalization and mainstreaming are cut from the same cloth: the right of all children to the best education possible. There is no easy answer to the "who" question, only an opinion: Public schools should evolve into organizations providing individualized instruction for all children, with the mainstreaming concept first applied to the children the schools now serve (West and Bates, 1979). Whatever the level of handicapped severity accepted for mainstreaming programs, it is essential to understand the types of handicaps and their nature, before establishing the appropriate design responses to accommodate the special needs of mainstreaming.

THE NATURE OF HANDICAP TYPES

In the most general sense, the term "exceptional children" refers to those children whose rate of development or learning deviates from the average to such an extent that special attention is required. The term refers to both the handicapped and the gifted child, though our attention is directed toward children with developmental lag.

Handicapped children may be considered to have one or more of the following disabilities:

- Mental retardation
- Visual difficulties
- Auditory difficulties
- Speech and language impairments
- Emotional disturbances
- Learning disabilities
- Orthopedic handicaps

While many of these disabilities occur exclusive of other disabilities, many appear in combination with each other. In some cases, one disability can influence the appearance of another.

It is important to note, however, that many handicapped children have below average abilities in one specific area and have average or above average abilities in all other areas. Thus, contrary to much belief, many handicapped children are not generally below average or sub-normal. They may not hear or see as well as the normal child, but are normal in all other areas of development. For the majority, the similarities between normal and handicapped children exceed the differences.

MENTAL RETARDATION

The mentally retarded child generally has an IQ below 70 or 80, has subaverage intellectual functioning, and impaired adaptive behavior, i.e., difficulty with sensory-motor skills, learning and social adjustment (Hewett, 1974).

Retardation can be caused by a number of factors:

- Genetic, e.g., Phenylketonuria or Down's syndrome
- Prenatal, e.g., Rubella disease, and according to recent reports, alcohol, drugs, and nicotine
- Perinatal, e.g., brain damage during delivery
- Postnatal, e.g., encephalitis
- Social factors, e.g., a greater incidence of mental retardation in families of lower socio-economic status

Degrees of severity of mental retardation range from mild, through moderate to profound.

Mildly or educably retarded children generally attain 2nd - 6th grade levels in academic achievement. Some may have a physical handicap (e.g., cerebral palsy) accompanying the mental disability. Also characteristic are moderate delays in speech and language (Dunn, 1973). Many mildly retarded children have the potential to get along independently in the community and to become partially or totally self-sufficient economically.

Moderately or trainably retarded children usually learn skills at a first grade level. Most have a physical or sensory impairment and rarely have the potential to live independently. Skill potentials are limited to working in a home, residential school, and most often only in a sheltered workshop.

For profoundly retarded children, on the other hand, the severity of mental retardation and accompanying physical disabilities make the child incapable of self care, socialization or vocational usefulness. These children require complete care and supervision (Hewett, 1974).

VISUAL IMPAIRMENTS

Visual handicaps include complete blindness, where visual acuity is 20/200 in the better eye; partial vision, where visual acuity is 20/70 to 20/200 after all treatment and lenses, and visual defects which can be remedied through treatment and optical aid.

The origins of complete blindness include prenatal causes, poisonings, diseases, and injuries. Partial vision may be caused by refractive errors, cataracts or albinism, muscle function defects, infection and injury (Hewett, 1974).

Children who are completely blind principally read braille. And while many studies show that blindness does not cause developmental disturbances when not complicated by other disorders (Cruickshank, 1971), it may affect mobility, interpersonal relations, and educational achievement.

The effects of partial vision on children are not as great. These children only require some instructional and physical environmental compensations (Moore, Cohen, Oertel, van Ryzin, 1979). Primarily they read large print books or regular print books under special conditions.

HEARING IMPAIRMENTS

The hearing impaired child may either be deaf (no auditory stimulation) or hard of hearing (difficulty hearing anything below 30 to 40 dB).

The cause of his or her disability may be genetic or due to disease or injury (e.g., rubella in early pregnancy). Evidence also suggests that high intensity noise and the mother's misuse of antibiotics during pregnancy can cause hearing impairment (Moore et al., 1979).

Deafness is often irremediable and can affect language and speech. The deaf child may also have balance and perceptual difficulties (A Playground for All Children, 1978). Deafness does not, however, affect intellectual ability when not complicated by other handicaps (Dunn, 1973).

The hard of hearing child is not effected in any of the above-named areas of development. His or her sense of hearing, though defective, is functional with or without a hearing aid (Cruickshank, 1971).

SPEECH AND LANGUAGE IMPAIRMENTS

Children's speech and language impairments take many forms and vary greatly in degree of severity.

Speech impairments include problems of articulation, voice, and stuttering. Language impairments are disorders of oral comprehension and expression as well as deficiencies in reading and writing.

The cause of language disabilities is probably related to a central nervous malfunction. Both speech and language difficulties may be related to a lack of experience due to poor linguistic models in the environment. Hearing difficulties, and association with more severe disabilities (e.g., cerebral palsy, mental retardation) can also account for speech impairments (Dunn, 1973).

While the disability may affect interpersonal relations and social maturity, normally it does not affect general intelligence (Moore, 1978).

LEARNING DISABILITIES

Children with learning disabilities do not have obvious physiological disabilities or signs of mental retardation, but cannot learn specific things in school and home situations. These children are normal in most respects, but have one or more marked, specific learning difficulties (Moore, 1978).

The cause of the disability may be neurological, emotional, or behavioral.

Some of the effects of the handicap include hyperactivity, perceptual-motor impairment, general orientation defects, short attention span, distractability, and difficulty acquiring, processing, and expressing information (Hewett, 1974).

ORTHOPEDIC HANDICAPS

Orthopedic handicaps include a variety of motor and neurological impairments ranging from mild motor incoordination to complete paralysis (Dunn, 1973).

For some children, the disability may be due to the loss of full use of one or more limbs. In this case, the crippling condition does not directly alter the learning abilities of the disabled child.

For other children, the disability may be due to neurological impairments occurring prenatally, paranatally, or postnatally, as in the case of cerebral palsy and spina bifida (Dunn, 1973).

Children with one of these disabilities may simply walk with a limp (e.g., mild cerebral palsy), ambulate with the aid of a leg or knee brace and/or crutches (e.g., spina bifida) (Moore, 1978), or be completely helpless in a wheelchair (e.g., the severe muscle weakness, postural imbalance and excessive involuntary motion of severe cerebral palsy) (Dunn, 1973). The nature of the disability will depend on which of the two conditions the child has and the severity of the particular condition.

In addition, many children with cerebral palsy and spina bifida have secondary handicaps. Most prevalent are defects of speech, vision, and mental retardation (Dunn, 1973).

Neither cerebral palsy nor spina bifida are progressive conditions, and in the case of mild cerebral palsy, the condition can be corrected (A Playground For All Children, 1978).

Also affecting motor stamina or performance but of a physical origin, are other health impairments like congenital heart defects, or rheumatic fever. While these impairments may slightly or severely affect physical activity, they do not affect other areas of development and learning if the child is properly cared for (Moore, 1978).

Pregnant school-age girls may also be considered to have potential mobility problems. For these children, pregnancy can produce some degree of anemia, high blood pressure, and excess weight. There is also a greater incidence of premature births and toxemia among pregnant school-age girls (Dunn, 1973).

INCIDENCE OF DEVELOPMENTAL DISABILITIES

As many as one in every ten children has some form of mental or physical handicap. However, this number represents the cumulative incidence of handicapped children for a fiscal year. Estimates are that 7.5% to 8.5% of all children require exceptional education services at any one time (Blessing, 1978). A breakdown of this figure into handicap types is known for some states, and can be compared with cumulative totals, as shown in Table 1.

A review of Table 1 indicates that speech and language is the most prevalent type of developmental disability; mental retardation is the next most common. Many children formerly listed under emotional disturbances are now seen to have some form of specific learning disability. Percentages in this category can be expected to continue to rise relative to the other handicap types.

TABLE 1:
DISTRIBUTION OF
DISABILITIES
AMONG ALL CHILDREN

Disability Type	1968 BEH Estimates ^a	1978 BEH Reports ^b
Speech Impaired	3.5%	3.5%
Mentally Retarded	2.3%	2.3%
Learning Disabled	1.0%	2.0%
Emotionally Disturbed	2.0%	2.0%
Hearing Limited	.6%	.11%
Visually Limited	.1%	.06%
Physically Handicapped	.5%	.5%
	10.0%	10.47%

Sources

^a U.S. Office of Education, Bureau of Education for the Handicapped, 1969; from Kirk, 1972

^b U.S. Office of Education, Bureau of Education for the Handicapped, 1978; from Blessing, 1978