

2 An overview of existing definitions and classifications

2.1 Definitions and classifications of intellectual disability

The terms 'intellectual impairment', 'intellectual disability', 'developmental disability' and 'mental retardation' are in common use. They are sometimes used interchangeably. In this section, the definition and use of these terms are discussed.

There are two broad approaches to the definition of intellectual disability and each approach has different assumptions. The traditional clinical approach (Heber 1959, 1961; Grossman 1973, 1983) considers intellectual disability as a characteristic of a person and a condition which is essentially within the individual and assumes that the source of the difficulty lies within the individual. The approach tends to define intellectual disability on the basis of either a medical model or a statistical model. The medical model focuses on pathology, which defines intellectual disability by the presence of pathological symptoms. The statistical model defines intellectual disability by identifying a certain group of the population as 'abnormal', using comparison of an individual's performance and the performance of a standardised norm group. The model measures the extent of disability by standardised tests, such as intelligence quotient (IQ) tests and social adaptation tests.

As an alternative, the social system approach assumes that an individual lives in a physical and social environment and that a disability is mainly the result of the interaction between the person and the environment. Mercer (1973a, 1973b) defines mental retardation as 'an achieved social status in a social system' so that individuals are labelled 'mentally retarded' as a function of their performance in a social environment. Mercer argues that the traditional approach is not adequate for identifying people with mild mental retardation. Gold (1980) suggested a concept which focused on the ability, or failure, of society to provide adequate training and education as the measure of mental retardation rather than on the failure of the individual (Patton et al. 1990).

It has been suggested that the traditional approach and the social system approach should not be viewed as alternatives, particularly in identifying people with mild mental retardation. Rather, the two approaches should complement each other, with the social system approach used first and followed by the traditional clinical approach (MacMillan 1982).

The latest (ninth) revision of the definition and classification by the American Association on Mental Retardation applied such a multidimensional approach. The new approach combined the traditional approach and the social system approach, and modified the classification system using descriptions which are more functional and oriented to service delivery (Luckasson et al. 1992).

2.1.1 The American Association on Mental Retardation (AAMR) definitions and classifications

The American Association on Mental Retardation (AAMR) definitions and classifications have wide, although not universal, endorsement in the United States. Most Australian institutions, either in administration records, legislation or studies at State or local levels, have adapted the AAMR definitions.

The latest (ninth) revision of the AAMR manual (1992) defines mental retardation as:

... substantial limitations in present functioning. It is characterised by significantly subaverage intellectual functioning, existing concurrently with related limitations in two or more of the following applicable adaptive skill areas: communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure, and work. Mental retardation manifests before age 18 (Luckasson et al. 1992).

The definition requires the diagnosis of mental retardation before age 18. However, mental retardation may occur at any age beyond the developmental period through an acquired physical trauma or central nervous system deterioration. If this happens, the condition is more properly classified as dementia (Grossman 1983). For people under age 18, the diagnosis of dementia is generally made when the condition is not identified satisfactorily by the diagnosis of mental retardation. A diagnosis of dementia requires that the memory and other cognitive deficits represent a significant decline from a previously higher level of functioning (American Psychiatric Association 1994). People with mental retardation are more likely to suffer from other associated mental disorders as compared with people without mental retardation. The most common associated mental disorders are attention-deficit/hyperactivity disorder, mood disorder, pervasive developmental disorders, stereotypic movement disorder, and mental disorders due to a general medical condition (American Psychiatric Association 1994).

Modifications of the AAMR definitions and classifications

The first comprehensive AAMR manual on definition and classification was published in 1959 (fifth revision) and was reprinted with minor corrections in 1961. In the 1959 and 1961 revisions, adaptive behaviour was formally introduced as a criterion in defining mental retardation. Since 1961, the manual has been revised periodically to reflect current information and development in the field, while the key definitional elements have generally remained the same: low general intellectual functioning, difficulties in adaptation and chronological age 18 (or 16 for the 1961 Revision) as a cut-off point for the presence of the conditions (Table 1).

Table 1: Comparison of different versions of A.AMR definitions of mental retardation

Term	Fifth revision (Heber 1961)	Sixth revision (Grossman 1973)	Eighth revision (Grossman 1983)	Ninth revision (Luckasson et al. 1992)
General definition	Subaverage general intellectual functioning which originates during the developmental period and is associated with impairment in adaptive behaviour.	Significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behaviour and manifested during the developmental period.	Significantly subaverage general intellectual functioning resulting in or associated with concurrent impairments in adaptive behaviour and manifested during the developmental period.	Substantial limitations in present functioning, it is characterised by significantly subaverage intellectual functioning, existing concurrently with related limitations in two or more of the following applicable adaptive skill areas: communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure, and work. Mental retardation manifests before age 18.
Subaverage	Greater than one standard deviation below the mean.	Significantly subaverage: two or more standard deviations below the mean.	Significantly subaverage: defined as an IQ of 70 or below on standardised measures of intelligence, could be extended upward through IQ 75 or more, depending on the reliability of the intelligence test used.	Significantly subaverage intellectual functioning: defined as an IQ standard score of approximately 70 to 75 or below.
Assessment procedure	General intellectual functioning: may be assessed by one or more of the standardised tests developed for the purpose.	Same as Heber.	Same as Heber for intellectual functioning. Adaptive behaviour assessed by clinical assessment and standardised scales.	Multidimensional approach including a three-step procedure for diagnosing, classifying and determining the needed supports.
Developmental period	Approximately 16 years.	Upper age limit of 18 years.	Between conception and the 18th birthday.	Manifesting before age 18.
Adaptive behaviour	Impairment in adaptive behaviour: refers to the effectiveness of the individual to adapt to the natural and social demands of his environment. May be reflected in: 1. maturation, 2. learning, 3. social adjustment.	Defined as effectiveness or degree with which the individual meets the standards of personal independence and social responsibility expected of his age and cultural group. May be reflected in the following areas: <i>During infancy and early childhood:</i> 1. sensory-motor skills development, 2. communication skills, 3. self-help skills, 4. socialisation <i>During childhood and early adolescence:</i> 5. application of basic academics in daily life activities, 6. application of appropriate reasoning and judgment in mastery of the environment, 7. social skills <i>During late adolescence and adult life:</i> 8. vocational and social responsibilities and performances.	Impairments in adaptive behaviour refers to significant limitations in an individual's effectiveness in meeting the standards of maturation, learning, personal independence, or social responsibility that are expected for his or her age level and cultural group. May be reflected in the same areas as 1973.	10 adaptive skill areas: communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure, and work. The relevant skills within each adaptive skill area may vary with chronological age, so that assessment of functioning must be referenced to the person's chronological age.
Levels of severity	Borderline retardation IQ 68–84 Mild retardation IQ 52–67 Moderate retardation IQ 36–51 Severe retardation IQ 20–35 Profound retardation IQ < 20	Mild retardation IQ 52–67 Moderate retardation IQ 36–51 Severe retardation IQ 20–35 Profound retardation IQ < 20	Mild retardation IQ 50–55 to approximately 70 Moderate retardation IQ 35–40 to 50–55 Severe retardation IQ 20–25 to 35–40 Profound retardation IQ below 20 or 25 Unspecified	Intensities of supports: Intermittent Limited Extensive Pervasive

Sources: Grossman 1983; Luckasson et al. 1992; Patton et al. 1990.

Intellectual functioning is measured by standard intelligence quotient (IQ) test scores. The IQ cut-off criterion for significantly subaverage intellectual functioning has been specified in terms of standard deviation (15) below the population mean (100) with a possible standard error -5 or +5. The cut-off scores were defined as greater than one standard deviation below the mean (Heber 1961), two standard deviations below the mean (Grossman 1973) and then in absolute IQ scores (Grossman 1983, Luckasson et al. 1992).

As can be seen in Table 1, the 1961 definition was broad, setting the upper IQ score limit up to 84 with 'borderline retardation' as an extra level of severity. However, the 1973 definition was more exclusive, by inserting the word 'significantly' before the term 'subaverage general intellectual functioning', and setting an IQ cut-off score close to 70. In the eighth revision (Grossman 1983), *significantly subaverage* is defined as an IQ of 70 or below on a standardised measure of intelligence. Yet the cut-off ceiling is a guideline and could be extended up to an IQ of 75 or more, 'depending on the reliability of the intelligence test used', provided that 'behaviour is impaired and it is clinically determined to be due to deficits in reasoning and judgment' (Grossman 1983:11). The latest (ninth) revision defines *significantly subaverage* as 'IQ standard scores of approximately 70 to 75 or below', which allows a range of 70-75 rather than an exact cut-off (Luckasson et al. 1992). These changes in IQ cut-off scores for defining intellectual functioning have resulted in great variations in Australia's definitions and classifications (for detailed discussion see particularly Sections 2.2 and 3.3).

The eighth (1983) revision was intended to make the AAMR definition consistent with the International Classification of Diseases, ninth revision, (ICD-9) of the WHO, particularly in terms of medical classification. However, because the purposes of the two systems are somewhat different, the two manuals are not identical. The AAMR manual was mainly for use by clinicians whose primary interest is in mental retardation, while the ICD-9 was designed for use in the context of the entire range of medical diseases and syndromes (Grossman 1983).

Changes in the latest (ninth) revision

Substantial changes occurred in the definitions and classifications of the ninth (1992) revision of the AAMR manual in contrast to earlier versions. One of the major changes is the 'shift from a deficiency-model to a support-model of mental retardation' (Reiss 1994, Schalock et al. 1994). The ninth revision considers mental retardation as substantial limitations in present functioning and broadens the concept of mental retardation by defining it as a *state*, rather than a *trait*, in which functioning is impaired in certain specific ways and occurs within the context of community environments (Luckasson et al. 1992). The new revision emphasises that mental retardation is a disabling condition resulting from the interaction between a person and the environment rather than a deficiency associated with individuals as it had been viewed in earlier revisions. The intention is not to change who is and who is not considered to have mental retardation but to change how people think about mental retardation. It 'shifts some responsibility for the consequences of disability from

the person to the environment' (Reiss 1994). One of the authors of the ninth revision has given the following example to illustrate the change:

Under the old AAMR definition, if a child had a low IQ and learned slowly in regular classrooms, the slow learning was attributed to 'mental retardation', and the teacher had an excuse for not producing better results in educating the child. The child was removed from regular classrooms and educated in 'special' places. In contrast, the new AAMR definition provides a basis for holding the school more responsible for the outcomes of education. For example, if a child with a low IQ learns slowly, the school is expected to provide the supports needed to educate the child in the regular education environment. When the new definition is more fully adopted, education in special classes no longer will be an option in many instances (Reiss 1994).

This shift from the old deficiency model to the new support model was supported by consumer organisations (Reiss 1994).

The second major change of the ninth revision is that the definition is based on a multidimensional (four dimensions) approach which provides a comprehensive description of a person with mental retardation (Luckasson et al. 1992). The approach aims to broaden conceptualisation of mental retardation, to avoid reliance on IQ scores to assign a level of disability, and to relate the individual's needs to the appropriate level of supports. The four dimensions are: intellectual functioning and adaptive skills, psychological/emotional considerations, physical/health/etiology considerations and environmental considerations.

A three-step procedure was introduced for diagnosing, classifying and determining the needed supports of a person with mental retardation. Step 1 is the diagnosis of mental retardation and determines eligibility for supports. Step 2 is classification and description, and identifies strengths and weaknesses and the need for supports. The person's strengths and weaknesses are evaluated in reference to all the four dimensions mentioned above. Step 3 is the profile and intensities of needed supports, and identifies needed supports.

As a result, the ninth revision excluded the previous classification of severity of mental retardation (i.e. mild, moderate, severe, or profound). Instead, it introduced a new concept of 'intensities of needed supports' on the basis of the assumption that a person's level of needed supports parallels the individual's limitations. The authors of the new revision concluded that such descriptions are more functional, relevant, and oriented to service delivery and outcomes than the labelling classification used in earlier revisions (Luckasson et al. 1992). Four levels of supports were specified: intermittent, limited, extensive and pervasive (for details of definition and examples see Appendix A). These levels of needed supports are to be identified in each of the four dimensions mentioned above.

Another major change is the expansion of the concept of adaptive behaviour. Under the new definition, ten applicable skill areas are specified (Table 1), which are considered as essential for service provisions in order to optimise the present functioning of the individual in the community. The definition also emphasises the degree of the skills since it is most closely linked to the need for services (Luckasson et al. 1992).

The modifications in the ninth revision can be mainly explained by the changes in its goals and philosophy. The purposes of the eighth revision, as the author stated, were to contribute toward an acceptable system to be used around the world, to facilitate communication for diagnostic, treatment, and research purposes, and to facilitate prevention efforts (Grossman 1983). However, the

new revision was chiefly intended to facilitate the development of inclusive services for people with a disability. The definition and classification provided the terminology needed to 'facilitate inclusive education, supported or competitive employment, and supported living' (Reiss 1994).

The authors of the new revision believe that the process of defining mental retardation is essentially an exercise of 'selecting from a range of possibilities the language and concepts that might serve as the cornerstone of today's public policy' (Reiss 1994).

Like any new initiatives, the new definition and classification of the ninth revision are still in a developing process. They need to be tested empirically, particularly in the classification of mental retardation and in the measurement of adaptive skills. The AAMR Classification and Terminology Committee (subsequently referred to as the Committee) admitted that further research is needed to develop measures of the ten adaptive behaviour skills and to evaluate the impact of the ninth revision on schools and service provision systems (Reiss 1994).

Main criticisms of the latest revision

One of the important issues is the consideration of how much weight to give to consumer versus professional opinions in developing the definition and classification. The authors of the ninth revision thought that 'consumers were entitled to have a substantial degree of influence over their own future' (Reiss 1994). Consequently, the consumers did play an important role in drafting the new definition. However, this has attracted criticism that the Committee has emphasised the values of advocacy and consumerism over those of scientific and empirical principles in drafting the ninth revision. The definition and classification seem to be a result of 'a sense of advocacy and concern with policy rather than being designed to meet the needs of researchers, clinicians, and practitioners' (MacMillan et al. 1993, 1995).

Replacing the former classification of severity of mental retardation with 'intensities of supports' in the ninth revision was criticised as neglecting the fact that people with mental retardation differ markedly in severity, etiology (organic and non-organic) and behavioural characteristics, and that the differences in characteristics and etiologies are substantial, if comparing people with mild mental retardation with those who have severe or profound mental retardation. The use of levels of supports instead of severity 'will result in classification that is less precise and less reliable than the one it replaces' (MacMillan et al. 1993, 1995). However, the Committee (Schalock et al. 1994) argued that the traditional distinction of the two broad groupings of etiology of mental retardation is probably no longer entirely valid. The epidemiological studies show that about 50% of individuals with mental retardation have more than one possible causal factor, sometimes reflecting cumulative or interactive effects of the factors (McLaren and Bryson 1987).

The issue of what should be the maximum IQ score to define subaverage general intellectual functioning is another controversy relating to the ninth revision. The Committee insisted that they did not intend to increase the IQ limits in defining mental retardation but to continue the past practice of

flexibility in the interpretation of IQ cut-off scores (Reiss 1994). However, MacMillan et al. (1993, 1995) raised serious concerns about the 'imprecision' of the definition that 'fails to provide clear guidelines and decision rules for eligibility of people in the upper IQ ranges of mental retardation'.

A small increase in the cut-off score will result in substantial change in the percentage of the population eligible to be diagnosed with mental retardation. In a normal distribution, twice as many people are eligible when the cut-off is IQ 75 and below (4.7%) as when it is IQ 70 and below (2.3%) (MacMillan et al. 1993, 1995). The 1961 version of the definition (Heber 1961) set the IQ upper limits score to 84. With that guideline in diagnosis, it was possible to identify statistically about 16% of the population in the United States as 'mentally retarded,' with an increase from about 6 million to 32 million (Patton et al. 1990; Evans 1991).

Conceptual and assessment concerns were also raised about the use of ten adaptive skills specified as defining criteria of mental retardation in the ninth revision. In the previous definitions, the authors acknowledged that the expectations of adaptive behaviour vary for different age groups and thus the deficits in adaptive behaviour will vary for people at different ages (Grossman 1983). The ninth revision appeared to neglect the strong relation between the degree of mental retardation and the age at which a person is diagnosed as having mental retardation. The ten adaptive skill areas adopted fail to consider developmental factors and cannot be assessed reliably (MacMillan et al. 1993). For instance, in examining a case of an infant suspected of having Down syndrome, virtually none of the skill areas could be assessed (MacMillan et al. 1993). The new revision does not identify any specific measures of adaptive behaviour skills, while the Committee provided some guidelines for the development of procedures and selection of instruments.

There are also general criticisms about the IQ tests. The rationale for setting the IQ cut-off score is based on a statistical model. The classification model based on IQ cannot account for the fact that two people with mental retardation having exactly the same IQ scores may differ considerably in everyday social competence (Zigler and Hodapp 1986). The tests have been found to lack reliability when applied to very young children or people with severe levels of impairment. Many of them cannot be given tests at all because of their extreme behavioural or physical disorders. The tests are considered to have a cultural bias when applied to various minority groups.

2.1.2 World Health Organization (WHO) definitions and classifications

International Statistical Classification of Diseases and Related Health Problems (ICD-10)

The WHO ICD-10 defines mental retardation as:

... a condition of arrested or incomplete development of the mind, which is especially characterised by impairment of skills manifested during the developmental period, skills which contribute to the overall level of intelligence, i.e. cognitive, language, motor, and social abilities. Retardation can occur with or without any other mental or physical condition (WHO 1992).

The classification points out that degrees of mental retardation are conventionally estimated by standardised intelligence tests, which can be supplemented by scales assessing social adaptation in a given environment. Intellectual abilities and social adaptation may change over time and may improve by training and rehabilitation, so diagnosis should be based on the current levels of functioning.

The category of mental retardation includes: mild mental retardation, moderate mental retardation, severe mental retardation, profound mental retardation, other mental retardation and unspecified mental retardation (for details of degrees of mental retardation according to the ICD-10 see Appendix B).

International Classification of Impairment, Disabilities and Handicaps (ICIDH)

The ICIDH is a manual of classification relating to the 'consequences of disease'. A disease or disorder may result in impairments. Disabilities reflect the possible consequences of impairments in terms of functional performance and activity by the individual. The term 'intellectual impairments' is used in the manual, which includes intelligence, memory and thought impairments (for details of classification of intellectual impairments according to the 1980 ICIDH see Appendix C). The ICIDH is currently undergoing a process of revision and is likely to delineate the separation of three basic concepts: impairment as an effect at organic level; disability in terms of whole person functioning; and 'participation' which reflects the result of the interaction between disability and environmental factors.

Comparison of ICD-10 and ICIDH

One of the common features of the two WHO manuals (ICD-10, ICIDH) is that neither has specified an age as a cut-off point for the developmental period, while the ICD-10 definition refers to the condition as 'especially characterised by impairment of skills manifested during the developmental period'. The definition of intellectual impairments in the 1980 ICIDH seems to refer to the population in general during their life time.

The second common feature of the two manuals is the use of the same range of IQ scores in classifying severity of mental retardation with a maximum IQ score of 70, which is similar to the classification used in the eighth revision of the AAMR manual.

There are also marked differences between the two WHO manuals. Intellectual impairments defined in the 1980 ICIDH cover a wider range of impairments and syndromes than those of ICD-10, involving impairments in intelligence, memory and thinking. Mental retardation is considered as one of the sub-categories of impairments of intelligence. The 1980 ICIDH definition of intellectual impairments excludes impairments of language and learning (Appendix C).

In the ICD-10 classification, apart from IQ scores and functional ability, need for support is one of the indicators differentiating mild mental retardation from moderate, severe or profound mental retardation, while in the 1980 ICIDH classification of intellectual impairments, only IQ scores and functional ability are considered.

2.1.3 The American Psychiatric Association definitions and classifications (DSM-III and IV)

The American Psychiatric Association (APA) has published four versions of *The Diagnostic and Statistical Manual of Mental Disorders* (DSM). The manual is used by clinicians, medical and health professionals, and researchers of many different disciplines. The sections relating to mental retardation in the third (DSM-III) and fourth editions (DSM-IV) have been written and modified to be compatible with the AAMR definitions and classifications (American Psychiatric Association 1980, 1994). The latest edition of the APA manual (DSM-IV) has incorporated the ten adaptive skill areas, which were specified in the latest definition of the AAMR manual, into its general definition of mental retardation.

Nevertheless, there are differences between the DSM-IV and the latest revision (ninth edition) of the AAMR manual. First, DSM-IV set the criterion for significantly subaverage intellectual functioning as an IQ standard score approximately 70 or below, while the ninth edition of AAMR set the score as approximately 70–75 or below. Second, DSM-IV retained the levels of severity of intellectual impairment (mild, moderate, severe, profound and unspecified), following the eighth edition of the AAMR manual. The ninth edition of the AAMR manual has replaced the levels of severity of retardation by ‘patterns and intensity of supports needed’.

2.1.4 Developmental disability and mental retardation

Definitions of developmental disability

The concept of developmental disability was not in general use until it was used in the US in a legal context—1970 *Developmental Disabilities Services and Facilities Construction Act* (PL 91–517).

Developmental disability has been defined as a broad term which includes mental retardation, cerebral palsy, autism, epilepsy, and other neurological impairments (Summers 1986). The term developmental disability is also used

in Australia to refer to severe chronic disabilities attributable to intellectual and/or physical impairment which occur before age 6 years.

Most of the definitions of developmental disability used in Australia are modified versions based on the US *Developmental Disabilities Services and Facilities Construction Act (PL 95-602)* which defined it as:

A severe, chronic disability of a person which

- (a) is attributable to a mental or physical impairment or combination of mental and physical impairments;
- (b) is manifested before the person attains age 22;
- (c) is likely to continue indefinitely;
- (d) results in substantial functional limitations in three or more of the following areas of major life activity:
 - (i) self-care,
 - (ii) receptive and expressive language,
 - (iii) learning,
 - (iv) mobility,
 - (v) self-direction,
 - (vi) capacity for independent living, and
 - (vii) economic self sufficiency; and
- (e) reflects the person's need for a combination and sequence of special, inter-disciplinary, or generic care, treatment, or other services which are of lifelong or extended duration and individually planned and coordinated (Summers 1986: 3-4).

The establishment of the age of 22 as the cut-off point for the developmental period is arbitrary (the previous version of the Act set the age at 18). The main intent of using the age of 22 (or 18) as the cut-off point for manifestation of the disability is that the disability must be present in a visible form during a person's formative years (Summers 1986).

In Australia, Victorian legislation defines the development period as 'before the child attains the age of 6 years' (*Intellectually Disabled Persons Services Act 1986*).

The US legislative definition has several main features. First, it is a broad term which encompasses a very heterogeneous population group ranging from people who are intellectually sound but who have severe physical impairments, to those who are physically fit but have severe intellectual impairments.

Second, the definition relies on broad categories of impairments: mental or physical impairment or both, rather than clinical diagnosis. The focus of the definition is on functional limitations (what a person can or cannot do) which then results in substantial limitations in a set of major life activities.

Third, this revised version of the definition emphasises the severity and chronicity of the impairment (to be 'likely to continue indefinitely') and the need for special and generic services. The definition's requirement for substantial functional limitation in three or more major life activities was intended to ensure provision of services to people with more severe impairments.

According to Seltzer (1983), the revision of the legislative definition (PL 95-602) resulted in a functionally oriented definition which considered that people living on their own and not needing services would no longer be classified as 'developmentally disabled' (cited from Evans 1991). The revision, with particular emphasis on severity of the impairments, has resulted in a 27%

reduction in numbers of the target population by exclusion of people with mild developmental disabilities (Henney 1980). This change demonstrated the great sensitivities of estimates of prevalence to the amendment of the definition as well as the impacts on accessibility and provisions of services.

Difference between developmental disability and mental retardation

Mental retardation is a particular state of functioning which begins in childhood and in which limitations in intelligence coexist with related limitations in adaptive behaviours. In this sense, it is a more specific term than developmental disability (Luckasson et al. 1992). The AAMR definition of mental retardation overlaps in many aspects with the US legislative definition of developmental disability but there are also marked differences.

Both definitions are developmental in origin and emphasise multiple areas of functional limitations and the need for a wide range of services from a multiplicity of service providers. Thus, both of the definitions are intended to link service planning, provision, and eligibility determination to the individual's capability (Luckasson et al. 1992). Most clinical types of mental retardation contain central nervous system pathology and IQ scores below approximately 55, which meet both the physical and mental criteria of the developmental disability definition. This subgroup of mental retardation is defined as having permanent impairments and 'substantial' functioning limitations (Grossman 1983).

The main difference between the two definitions of developmental disability and mental retardation occurs in describing the upper range of IQs. The AAMR definition of mental retardation does not emphasise chronicity or irreversibility of the condition; on the contrary, it applies only to present levels of functioning. Those children with mild mental retardation often are 'functionally impaired' in the school years only. They have no visible neurological disorders and achieve some level of adult independence after school years. Therefore, they fall outside the definition of developmental disabilities (Grossman 1983).

2.1.5 Learning disability and mental retardation

In the United States, the federal *Education for All Handicapped Children Act* (PL 94-142) defined learning disability as:

... a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, speak, read, write, spell, or do mathematical calculations (Batshaw and Perret 1992).

The definition includes conditions which have been referred to as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, developmental aphasia, etc. It excludes learning problems which are due primarily to visual, hearing, or motor handicap, to mental retardation, emotional disturbance, or to environmental disadvantage (Grossman 1983). The definition fails to clarify what the 'basic psychological processes' are and how to measure the 'imperfect ability' (Batshaw and Perret 1992).

By the legislative definition, an important difference between learning disability and mental retardation is the level of measured intelligence. In learning disability, there are impairments in specific areas (e.g. reading, expressive language) but there is no general impairment in intellectual development and adaptive functioning. Therefore, learning disability should exclude mental retardation and, presumably, include people of at least average intelligence. People who have mental retardation can have learning difficulties, which correspond to general impairment in intellectual functioning (Grossman 1983).

There has been much debate relating to the definition and identification of learning disabilities. A particular issue is whether learning disability can occur concurrently with other disabilities. To address this issue, the US National Joint Committee on Learning Disabilities published a revised definition:

Learning disability is a generic term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual and are presumed to be due to central nervous system dysfunction. Even though a learning disability may occur concomitantly with other disabling conditions (e.g. sensory impairment, mental retardation, social and emotional disturbance) or environmental influences (e.g. cultural differences or insufficient/inappropriate instruction), it is not the direct result of those conditions or influences (Hammill 1990, cited from Batshaw and Perret 1992).

This definition admitted the possibilities of co-existence of learning disability and mental retardation. But learning disability is not considered as a direct consequence of mental retardation.

Gething (1992) suggested that learning disability is a more specific term than intellectual impairment. It refers to limitation in a specific area and can occur in people with all levels of intellectual functioning, including those classified as above average.

The American Psychiatric Association manual DSM-IV pointed out that in learning disorders, development in a specific area (e.g. reading, expressive language) is impaired but there is no generalised impairment in intellectual development and adaptive functioning. However, DSM-IV also suggests that, while in mental retardation learning difficulties correspond to general impairment in intellectual functioning, in some cases of mild mental retardation the level of achievement in academic skills (reading, mathematics or written expression) is significantly below expected levels given the person's schooling and severity of mental retardation. In such cases, an additional learning disorder diagnosis should be made (American Psychiatric Association 1994).

2.2 Australian administrative definitions of intellectual disability

2.2.1 Legislative definitions

Many of the Australian administrative or legislative definitions of intellectual disability have adapted the AAMR definitions. For instance, the *Western Australian Authority for Intellectually Handicapped Persons Act 1985* adopted the

AAMR definition and classification. The Authority for Intellectually Handicapped Persons was a State government agency where all people with an IQ score less than 70 were eligible for registration (Wellesley et al. 1992).¹

The *Victorian Intellectually Disabled Persons Services Act 1986* defines intellectual disability as:

... intellectual disability, in relation to a person over the age of 5 years, means the concurrent existence of (a) significant sub-average general intellectual functioning; (b) significant deficits in adaptive behaviour; each of which became manifest before the age of 18 years (Intellectually Disabled Persons Services Act 1986, Reprinted 3 August 1995 incorporating amendments up to Act No. 48/1995).

The major difference between the Victorian Act and the AAMR definition of mental retardation is that the former excludes people under age 6. This is related to the modification of the definition of developmental delay in the Victorian Act, which specified that the developmental delay must be manifested before the age of 6.

The *Social Security Act 1991* provided tables for assessment of impairment as part of the assessment for eligibility for the Disability Support Pension. Intellectual impairment is assessed using three key criteria shown in Table 2. The scores of all the three assessment criteria are added, and weighted, to convert to a whole person impairment score using a specified table. The table contains the weights for conversion to whole person impairment scores with a starting point of 10% for a total score of 3. Each increase in the total score of the key criteria by one unit will result in an increase of 5% in the whole person impairment score. The Act specified an impairment score of 20% or more as one of the eligibility criteria for the Disability Support Pension (Department of Social Security 1993).

The assessment criteria set the cut-off IQ scores between 70 and 80 rather than below 70 or 75. People with IQ scores of 50 and less and with severe behaviour problems will be considered as 'totally dependent' in terms of capacity for independent living (Department of Social Security 1993).

Table 2: Classification of intellectual impairment

Score	Intellectual	Behaviour	Capacity for independent living
0	Normal	Normal	Self-sufficient
3	Borderline (IQ 70–80)	Slight problem	Needs minor help
4	—	Moderate problem	Needs regular help
5	Mildly impaired or worse (IQ 50–70)	Moderate to severe problem	Needs major help
6	Moderately impaired (IQ 30–50)	Severe problem	Totally dependent
8	Moderately to severely impaired (IQ 20–30)	—	—
10	Severely impaired (IQ < 20)	—	—

Source: Department of Social Security 1993.

¹ The *Western Australian Authority for Intellectually Handicapped Persons Act 1985* was repealed by the *Western Australian Disability Services Act 1993* and the Disability Services Commission was established in 1993 through amalgamation of the former Authority for Intellectually Handicapped Persons and the former Bureau for Disability Services.

2.2.2 Definitions in national data on disability support services

The Commonwealth/State Disability Agreement (CSDA) Minimum Data Set (MDS) provides data items and definitions which are used to compile nationally consistent data on disability support services provided or funded under the CSDA (Black and Madden 1995).

Disability type, one of the data items of consumer profile in MDS, is used for a broad categorisation of disabilities in terms of the underlying impairment, condition or cause. In the 1995 national collection, the category of intellectual/learning disability generally refers to conditions identified during the developmental period (age 0–18) with concurrent learning difficulties and the need for more support in daily life-skills compared to others of the same age (Black and Madden 1995). The category of developmental delay is applicable to children aged 0–5 only and refers to conditions appearing in the early developmental period, with no specific diagnosis (Black and Eckerman 1997).

The MDS is being progressively developed and the 1996 collection has separated the learning disability from the former category of 'intellectual/learning'. Learning disability generally refers to a group of disorders, presumed due to central nervous system dysfunction rather than an intellectual disability, covering significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical skills (Black and Eckerman 1997).

2.2.3 Working definitions

In some working documents in Australia intellectual disability was more loosely defined even though the definitions were adapted from the AAMR definition. The following working definition, for example, was used by the joint Commonwealth and State review into the needs of people with intellectual disability in Tasmania:

... an intellectually disabled person is someone with below average intellectual functioning which results in slower development of social and behavioural skills than other people of the same age (Foster et al. 1984).

The imprecise working definition might be the result of limitations in data source and quality. The review's survey was able to identify only 1,089 service recipients with intellectual disability in Tasmania and for nearly 30% of the 1,089 clients there was no information about their severity of retardation at the time of the survey (Foster et al. 1984).

A project on patterns of service for people with an intellectual disability conducted by the South Australian Health Commission (1981) adopted the AAMR definition. The project team found that although the AAMR definition was the most satisfactory definition available, there were limitations when it was used as an operational definition. As previously mentioned, the AAMR definition consists of three key criteria: low general intellectual functioning, difficulties in adaptation, and chronological age 18 as a cut-off point for the presence of the disabling condition. Some people had one or two but not all the three criteria but they needed or benefited from services similar to those provided for people with an intellectual disability.

The following five groups of people were identified by the project team (South Australian Health Commission 1981):

- *Adults with borderline or low normal intelligence who have psychotic behaviour disorders.* As a result of the interaction of the two conditions, they may require services similar to those for people with more severe mental retardation.
- *People with borderline intelligence and multiple disabilities.* While the severity of retardation of those people may be only in the borderline category, their other physical or sensory disabilities often mean they have similar needs for services and benefits.
- *Children with borderline intelligence and their only adaptive behaviour deficit is incapable to cope with normal schooling.* This group could include people with autism. These children would face similar problems and need similar services to those with mild retardation during their adolescence or young adulthood.
- *Children too young for accurate assessment.* Children with mild to moderate retardation who are too young for accurate assessment may or may not eventually be identified as having intellectual disability. They share the need for early intervention programs with children having more severe retardation.
- *Adults with brain injury.* Adults with brain injury who have all the characteristics of intellectual disability but would be excluded from the AAMR definition because of the late age of onset of their disabling conditions.

These practical issues arising from field experiences suggest that it is necessary to adopt a multidimensional approach, and to include assessment of intensities and patterns of need for support as one of the components of the definition and classification. This is the direction which the new AAMR definitions and classifications are moving towards.