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Difficulties That Are Met in Sports Lessons in Special Education by Children Who Have Mental Disabilities and Suggestions to These Problems

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Abstract: The aim of this study was to evaluate the various diffuculties of the physical education in the children of mentally retardation in Turkey conditions. Therefore, this investigation was conducted on the students of the private schools. As a result of this study, the students have been the successful both the education and the adaptaion to the life.However, all of the students have not anxiety, the depression in the teaching and the during the exercises.

Key words: Sports, education, mental disabilities, sports, lessons

INTRODUCTION

Besides the health of humans, the existence of many mentally retarded human beings is the reality in Turkey. It is the natural rights of mentally retarded people to get benefit of all the facilities at most that healthy humans have. One of the rules of development is that there are some different properties of people besides the similar properties, in other words people show individual differences from each other (Achenbach and Edelbrock, 1986; Akoojee, 2003, 2005; Akoojee *et al*., 2005; Aman *et al*., 1985; Badger *et al*., 1981; Baroff, 1991; Batshaw and Perret, 1992; Bester, *et al*., 2001; Biasini *et al*., 1998). Educators, parents and all people have to admit the fact that humans have different features behind the similarities. All of the children's physical, mental, emotional and social development processes differ from each other. If these differences are on acceptable levels, children can benefit from common education facilities, otherwise if the level of differences is high, children have to benefit from special education (Bornstein and Sigman, 1986; Bregman, 1988, 1991; Broman, 1978, 1979, 1987, 1989; Broman *et al*., 1987; Bryant *et al*., 1996; Bush and Beail, 2004; Camp *et al*., 1998; Citizen, 1970; Coates and Lewis, 1984; Corbett, 1985; Decoufle and Boyle, 1995; Doll, 1962). In order to explain the situations of children who need special education, the meanings of disability and handicap has to be defined. Disability is the problem of organs or some parts of body unable to meet the regular activities (Gostason, 1985; Grossman, 1973, 1977; Gualtieri, 1991; Hauser and Ratey, 1994; Hauser, 1997; Hay *et al*., 2001; Heber, 1961; Helling *et al*., 2006; Jacobson, 1990; Joshua and Shapiro, 2006; Khan *et al*., 1997; Kraak and Hall, 1999; Kruss, 2002; Lewis and MacLean, 1982; Lowry and Sovner, 1991).

As a result of that disability, person may not able to hear, speak, understand, run or learn enough. Handicap is the limitiations of disabled person in performing the need of social life. If disabled person does not face any restrictions because of his/her disabilities while performing the needs of social life, this person can not be called as handicapped. If she/he faces any restrictions then she/he is handicapped person. While, a disabled person can be called as a handicapped in some situations, if there are enough equipments for providing his/her demands in other ones, she/he cannot be thought as disabled (Lowry and Sovner, 1992; Lubetsky *et al*., 1995; McCarney, 1996; Mehrens and Lehman, 1991; Menolascino, 1977; Paris and Haywood, 1973; Pary *et al*., 1995; Pennington and Bennetto, 1998; Polloway *et al*., 1997; Powers, 2005; Pulsifer, 1996; Reid and Ballinger, 1987; Reiss *et al*., 1982; Reiss and Szyszko, 1983; Rimmer, 1994; Rispens and Van Yperen, 1997; Roid and Miller, 1997).

There are not enough and detailed studies in literature about the problems of mentally handicapped children in sports lessons. Therefore, this study aims to determine the potential problems of mentally retarded children in sports and physical education lessons and to find solutions to determined problems of them that are educated in Kutahya Yavuz Selim Mentally Retardation School, Kütahya Work Education Center and Cinikent Mentally Retardation School in Turkey.

MATERIALS AND METHODS

In this study, the mentally retarded students of Kutahya Yavuz Selim Mentally Retardation School, Kütahya Work Education Center and Cinikent Mentally

Retardation School in Turkey, problems of these students are discussed as a whole. The fundamental problems are assessed and discussed in the literature review.

The concept of special education: There are many definitions of private education. Besides the similar definitions, there are some different ones. Followings are some definitions of special education. Special education is the combination of education services that are individually planned for the students who have a significant level of differency from average student features and are targeted to increase the probability of living as an individual (Roswal and Williams, 2001; Rubin *et al*., 1985; Russell, 1985; Rutter *et al*., 1976; Saramma, 2001; Sheerenberger, 1983; Seltzer and Krauss, 1989). Special education is an extra education activity to fulfill the goals of education and learning in points of handicap or superior features of physical, mental, emotional and social developmental processes of children who need speacial service and measures. Moreover, special education can be defined as the studies of staff who are trained specially for the education of children that need special education by the help of developed education programs in specially settled places that are appropriate for these children's disabilities and features. As an other definition, special education is a regulation activity of educational variables about preventing, reducing or eliminating individuals' important deficiencies or faults on academic, communication, movement and adaptation fields (Simeonsson and Bailey, 1992; Szymanski and Wilska, 1997; Temple *et al*., 2006; Wechsler, 1981; Wechsler, 1989; Wilson, 1985).

The field of special education is an interaction network that guidance, treatment education and rehabilitation activities are combined. As it is understood from the above definitions, special education is some kind of planned studies for the disabled and handicapped children via the help of special education programs, expert staffs that are trained for the education of these children in specially settled places to make them participate in social life and be enough for themselves (Akoojee, 2003; Akoojee, 2005; Akoojee *et al*., 2005; Aman *et al*., 1985; Badger *et al*., 1981; Baroff, 1991).

The classification, prevalance and causes of being handicapped of students who need special education: The classification of students who need special education has been done differently by many scientists. However, a valid and reliable classification is like this (Broman, 1989; Bryant *et al*., 1996; Bush and Beail, 2004; Camp *et al*., 1998; Citizen, 1970; Coates and Lewis, 1984; Corbett, 1985; Decoufle and Boyle, 1995; Doll, 1962).

Students who need special education:

- Mentally retarded students (rate is 2.8% in the population of students).
- Students with learning disabilities (rate is 4% in the population of students).
- Students with emotional and behavioral disorders (rate is 8% in the population of students).
- Students with speech and language disorders (rate is 8% in the population of students).
- Students with hearing impairments (rate is 1% in the population of students).
- Gifted students (rate is 5%).

Causes of being handicapped: It can be listed in lots of criteria. Those are, causes which occured in rebirth, during the birth and after the birth.

- Causes occured in rebirth.
  - Chromosome, coming from the birth and environmental factors.
- Causes occured during the birth.
  - Remature and lack of oxygen.
- Auses occured after the birth.
  - Elated to physical health, caused by education and emotional, social causes.

Mentally retardation: The concept of mentally disabled is usually used as retardation. They are the most common group of children who need special education. Especially teachers who officiate at preschools and elementary schools face with those children. There are prejudious and unreal beliefs about retarded children that supports the idea they are not accepted by the society. Generally, retarded and insanity concepts are mixed with each other. While in medicine literature, retarded can not be cured and and is a hopeless situation, educators suggest that there are promising improvements in this argument with the lights of happenings (Helling *et al*., 2006; Jacobson, 1990; Joshua and Shapiro, 2006; Khan *et al*., 1997; Kraak and Hall, 1999; Kruss, 2002; Lewis and MacLean, 1982; Lowry and Sovner, 1991).

In a research, the condition of retarded is defined according to 6 criteria:

- Mentally subnormal.
- As a consequence of this, socially insufficient.
- Mentally retarded from innate.
- Deficient in maturity.
- Mentally reatarded due to heritage or illnessess.
- Permanent and incurable situation.

In the next scientific definitions, American Association on Mental Retardation(AAMR) is of paramount importance.

The condition of mental retardness shows important disabilities. This is the situation that shows limits in mental ability functions which is lower than normal and also accord skill fields (communication, self-care, living household, social skills, community benefication, managing himself, health and security, functional academic skills, spare time and work) of the two or more. Mental retardness occurs before the age of 18 (Pennington and Bennetto, 1998; Polloway *et al*., 1997; Powers, 2005; Pulsifer, 1996; Reid and Ballinger, 1987; Reiss *et al*., 1982; Reiss and Szyszko, 1983; Rimmer, 1994; Rispens and Van Yperen, 1997; Roid and Miller, 1997).

According to the curriculum of Trainable Primary School which is publicated in 1990 in Turkey, it is defined as:

It is called as retarded who may not be able to make use of normal education because of retardness and inadequacy in proportion of ¼ and higher relative to their peers as a result of pause, regression and a slow down in mental, social, maturity, psychodynamic functions and developments which occur by many reasons in rebirth, during birth and after the development processes (Simeonsson and Bailey, 1992; Szymanski and Wilska, 1997; Temple *et al*., 2006;Wechsler, 1981, 1989; Wilson, 1985).

With the lights of these identifications, it is classified as taking regulations of Special Education Schools in Turkey into consideration.

Trainable: IQ level is between 45-75 in various scales.

Teachable: IQ level is between 25-44 in various scales, children need special education and rehabilitation realized by workings with health institutions.

Clinically indigent: IQ level is always between 0-25, children certainly cannot be adapted to life and need clinical care and health facilities.

The causes of being mentally handicapped: We have defined the causes of being handicapped in three categories. The most widespread classification of mental handicapped people is AAMR classification. According to AAMR, the reasons are:

- Contagious disease and intoxications.
- Injuries and physical effects.
- Corruption in metabolism and nutrition.
- Brain illnesses.
- Unknown reasons in rebirth.
- Abnormality in chromosomes.
- Genetic corruptions.
- Psycho-social corruptions.
- Environmental effects.

The education of mentally handicapped children: They have learning difficulties when compared to their peers. Their learning is slow. They can not learn by themselves and transfer it to an another field. There are some differences among minimum, medium and maximum types of mental-retarded children. There are some ways to care their education (Akoojee, 2003, 2005; Akoojee *et al*., 2005). The rules are;

- To enable successful lives.
- To enable feed-back.
- To develop right answers.
- The evaluation of the child's capacity level.
- The analysis of the teaching subjects and behaviors.
- To help for transforming knowledge from one field to another.
- To enable repetitions of the learned information.
- Concentrate to learn.
- To limit the number of the learning conceptions.

Mentally handicapped's physical education lesson subjects in Turkey: The classes of the students must be formed as:

- Self-care, like the 1st, 2nd and 3rd classes of primary school, 4 h in a week.
- Units, like the 4, 5 and 6th classes of primary school, 4 h in a week.
- Work training, like the 7, 8th classes of primary school, 4 h in a week.

However, the curriculum of the physical education lessons are the same because of their being mentally handicaped. The syllabus of a physical education lesson applied to mentally handicapped students during the whole year of education and learning according to units (Hauser and Ratey, 1994; Hauser,1997; Hay *et al*., 2001; Heber, 1961; Helling *et al*., 2006; Jacobson, 1990; Joshua and Shapiro, 2006; Khan *et al*., 1997; Kraak and Hall, 1999; Kruss, 2002):

Unit I (Body movements)

- Aim is understanding of body parts.
- Aim is to define how body parts move.

Unit II (Order exercises)

- To enable students to get habits and balance in basic posture.
- Body rotations.
- Aim is to make students find directions and positions before movement.

Unit III (Basic movements)

- To enable students to do basic joint movements; head, shoulder, wrest, hip, knee ankle movements.
- To improve joint-muscle coordination with walking exercises.
- To improve joint muscle coordination and balance timing feature with running exercises.
- To improve timing feature of the muscle and timing changing directions with jumping exercises. With climbing exercises the muscle strength improves.

Unit IV (Ball exercises)

- To improve ball handing abilities according to the body position.
- To improve ball handing abilities according to the changes in body position.
- To improve ball handing abilities according to the different positions and speeds.
- To improving ball kicking abilities related to feet.

Unit V (Gymnastics with equipment)

- To improve movement and balance features on mat.
- To improve the attainment of Neromuscle coordination by rope environments.
- To improve the learning of the different features of body parts at the same time.
- To improve the features to make movements with different body positions by making gymnastics.

Unit VI (Playing games)

- To improve the figuring ability of physical position with imitation movements.
- To improve the abilities of learning game figures and obeying the game rules.
- To improve the emotions such as sharing, losing and playing the game friendly appropriate to rules of it.

Unit VII (Team games)

- To improve basic techniques of basketball.
- To improve basic techniques of volleyball.
- To improve basic techniques of football.
- To improve obeying the rules of the game and sharing in team games.

Unit VIII (Sports equipment and usage)

- To improve the recognition of sports equipments.
- To improve the ability to choose and use the best sport equipments in proportion to branches of sports.

Unit IX (Sports and health information)

- To enable students to understand the sports' physical and psychological benefits to health.
- To improve the ability and knowledge wearing appropriate to the sportive activity and taking care of themselves after sports lesson avoiding dangerous materials.

RESULTS

In the point of professional formation for the election of the current and future teachers in these schools, people must be employed that are so much patient, compassionate, merciful and full of human love. The physical education classes have to be revised in the aspect of teacher, curriculum and education environment. Appropriate regulations must be formed in the manner of taking advantage for trainable mentally handicapped students.

In order to examine the additive effects of physical education classes in development of students in this case, empirical researches has to be carried out. Parents must be included to the education program in order to be aware of the positive effects of physical education and sports activities in the progress of children and they must be guided to utilize spare times for placing sports activities. The research carried out in this subject shows that disabled children are calmer and more efficient in other classes on days they play sports; however, they are more ill-tempered when they do not play sports. It was observed that while behavioral changes occur on the less adaptable children, partially adaptation is filled with full adjustment. Sport is important to eject the accumulated energy.

In the research about the effects of basketball trainings on the behavior progress of mentally handicapped children, providing positive contributions of team sports, making changes on family, in class behaviors and making parents be pleased on that subject are

determined to be effective. Rule consciousness does not occur on children, who have obstacles to learn and live, but they make movements by the help of sports, they play games. However, they might not able to transfer that knowledge to another field. Because the primary way to be successful is sports for the progress of egotism respect and being successful, the attendance of these kind of children are necessary to physical education classes rather than classes with academic subjects and their needs to these kind of lessons as much as normal children are inevitable. Therefore, individual and musical activities are the best activities for the mentally retarded children and the everyday practice of these activities in particular times have to be provided.

Specific games for mentally handicapped individuals should be spread. Besides, regional, national and international sports should be organized. Mentally retarded students represent the neediest group for many activities; hence the necessary changes have to be done in current sponsor law, so a special statue has to be defined to allow them to take participate in those kinds of activities because it is known that the mentally retarded children generally exist in poor families. In addition to that, existence of retarded cases is usually met in pregnancy. Universities should spread the specific education departments and spare more quotas. Moreover, there must be specific education lessons and current curriculum should be reorganized for the class, physical education, sports teaching and any other relevant departments. Regional and national programs should be prepared by the media about the children that need special education. Playing sports makes the handicapped children healthy and strong, provides self-confidence, socializes them and facilitates the adaptation of them to society, makes them happy. It is also illuminated that families also accept their children by helping them to meet new people get used to environment. As a consequence of them, social integration accelerates.

At certain times, retarded children should attend to the camps because camping activities offer important contributions for the incorporation of children along with the physical, social and programs of those students. Physical education is an indispensable field for retarded children, because I observed that the other fields are much restricted to express themselves in the period of my attendance to the sports activities for three years that are organized by Mentally Retarded Federation and Special Olympics together. I observed that when they comprehend they can express their thoughts and can achieve to do something, they get self-confidence. This is the most important point of special education: Self-confidence. They show the same feelings in physical education, work training and drawing lessons. One of the special education experts, physical education teacher candidates should have training courses in these schools and recognize them closely. As it is understood from this research, the problems of mentally retarded children in physical education and sports classes are obvious. The solutions of these problems are not difficult.

DISCUSSION

Because the learning abilities of children are low and slow, the applications in the lesson are repeated so much.

Difficulties that are confronted with according to interviews which were filled in throughout the research with teachers and school masters are listed in as follows:

- The students coming to these schools are not classified correctly, some of them are sufficient, some of them are not sufficient.
- The applications made in the school (nutrition, toilet, word knowledge, etc.) are not repeated at home.
- As the children are mentally retarded, they forget the things they did lastly and can not remember anymore.
- Even if the learning is slow and late, to teach a movement takes a lot of time.
- As the students' attention is limited to 2-3 min in this situation, this time period is not enough for teaching a movement.
- For the period of lesson, the attention can be changed to another field. So, it is hard to make students pay attention to the lesson.
- Because there is no transfer in learning, knowledge on a field can not be transmitted to another field.
- The obligation to teach the subject by educational games.
- By the reason of necessity of using equipments in the lesson, teacher has difficulties of being alone for the duration of teaching.
- During these stages, the little muscles of students are not improved. Therefore, it is not easy for them to make movements.
- As they do not know their hunger, they always eat something so this leads to difficulties in physical education lessons.
- As they do not have imagination skills, the teacher shows and repeats the movements many times.
- Parents do not accept the manner of their children and hope great expectations from the school and lesson.
- As a result of characteristics of students with mental disabilities who do not have ideas about perception, usage of discipline and evaluation, teachers have problems specially in classroom management.

This study investigated the physical and mental properties and the physical educations of students with mental retardation. Mental retardation is an idea, a condition, a syndrome, a symptom and a source of pain and bewilderment to many families. Its history dates back to the beginning of man's time on earth. The idea of mental retardation can be found as far back in history as the therapeutic papyri of Thebes (Luxor), Egypt, around 1500 B.C. Although, somewhat vague due to difficulties in translation, these documents clearly refer to disabilities of the mind and body due to brain damage. Mental retardation is also a condition or syndrome defined by a collection of symptoms, traits and/or characteristics (Helling *et al*., 2006). It has been defined and renamed many times throughout history. For example, feeblemindedness and mental deficiency were used as labels during the later part of the last century and in the early part of this century. Consistent across all definitions are difficulties in learning, social skills, everyday functioning and age of onset (during childhood). Mental retardation has also been used as a defining characteristic or symptom of other disorders such as Down syndrome and Prader-Willi syndrome. Finally, mental retardation is a challenge and potential source of stress to the family of an individual with this disorder (Joshua and Shapiro, 2006; Lowry and Sovner, 1992; Lubetsky *et al*., 1995; McCarney, 1996; Mehrens and Lehman, 1991). From identification through treatment or education, families struggle with questions about cause and prognosis, as well as guilt, a sense of loss and disillusionment about the future. During investigation some factors were extracted including: task orientation, social integration, fitness, team orientation and social affective. Achievement goal theory is one of the most popular theoretical perspectives from which to address motivation in sport and physical activity. Achievement goal theory assumes that a person's individual achievement goals govern achievement beliefs and guides behavior in achievement settings. To understand motivation of people, it is important to know why one is in the achievement context. According to achievement goal theory, the driving force behind achievement behaviors is the demonstration of competence. Title is known about achievement goals of individuals with Mental Retardation (MR). Given the cognitive nature of achievement goal theory, the lack of theoretical application to athletes with MR is largely because of measurement difficulties. Several measurement scales have been used to assess perceptions of competence and achievement motivation in persons with and without MR. Liker type scales in which both magnitude and confidence are assessed is a traditional way to assess motivation. The complexity of such scales, however, prevents the accurate assessment of achievement goals of individuals with MR. Individuals with MR tend to be unable to differentiate the importance of the items. On the basis of responses, participant's cognitive ability to determine and respond to the reasons for participation needs to be separated from the cognitive processes subsumed under a response format of determining magnitude of importance of the respective motives. A second factor influencing responses of persons with MR on Liker scales is the use of anchoring labels. Regardless of whether the labels arc related to all points along a scal or simply to the two ends, individuals with MR demonstrate difficulty remembering the various descriptors and may interpret meanings assigned to response options differently (Seltzer and Krauss, 1989; Simeonsson and Bailey, 1992; Szymanski and Wilska, 1997; Temple *et al*., 2006; Wechsler, 1981, 1989; Wilson, 1985). The person may have trouble learning. It may take longer for the person to learn social skills, such as how to be friends or how to communicate with other people. The person also may be less able to care for himself or herself and to live on his or her own as an adult. Sometimes kids who have mental retardation get teased or bullied. This is especially sad because these kids really need friends and people who will be kind to them. Just because they have learning problems doesn't mean they don't have feelings! Just like you, these kids want to be liked and to have fun at school. During school, a kid with mental retardation will probably need help. Some kids have aides that stay with them during the school day. Special education and other services are available to help with learning and behavior. They can also receive help in learning life skills. Life skills are the skills people need to take care of themselves as they get older, such as how to ride a public bus to get to work. More and more, people with mental retardation are able to have jobs and to live independently (Akoojee, 2003, 2005; Akoojee *et al*., 2005; Lowry and Sovner, 1992; Lubetsky *et al*., 1995; McCarney, 1996; Mehrens and Lehman, 1991; Powers, 2005). Mental retardation is not a disease itself. It occurs when something injures the brain or a problem prevents the brain from developing normally. Many times we don't know why a person has mental retardation. These problems can happen while the baby is growing inside his or her mom, during the baby's birth, or after the baby is born. Mental retardation can't always be prevented. However, a couple can have tests done to determine if they are at risk of having a child with certain medical conditions that may include mental retardation as part of the condition. When a woman is pregnant, it's important that she eats healthy foods and avoids alcohol

and drugs. And after a baby is born, blood tests are done to check for certain problems. Some of these problems can cause mental retardation, but if they are treated right away, mental retardation can be prevented (Polloway *et al*., 1997; Powers, 2005; Pulsifer, 1996).

Also, it's important for kids to do what they can to prevent brain and head injuries. With babies, it's important that they are protected by car seats and that great care is used so that they don't fall from changing tables or other places. Older kids can protect themselves by wearing seat belts in the car and wearing helmets while riding bikes, in-line skating, or using scooters (Lowry and Sovner, 1992; Lubetsky *et al*., 1995; McCarney, 1996; Mehrens and Lehman, 1991; Menolascino, 1977; Paris and Haywood, 1973; Pary *et al*., 1995;Pennington and Bennetto, 1998; Polloway *et al*., 1997; Powers, 2005; Pulsifer, 1996; Reid and Ballinger, 1987; Reiss *et al*., 1982; Reiss and Szyszko, 1983; Rimmer, 1994; Rispens and van Yperen, 1997; Roid and Miller, 1997).

Assessment of a child suspected of having a developmental disability, such as mental retardation, may establish whether a diagnosis of mental retardation or some other developmental disability is warranted, assessing eligibility for special educational services and/or aid in determining the educational or psychological services needed by the child and family. At a minimum, the assessment process should include an evaluation of the child's cognitive and adaptive or everyday functioning including behavioral concerns, where appropriate and an evaluation of the family, home and/or classroom to establish goals, resources and priorities (Bornstein and Sigman, 1986; Bregman, 1988, 1991; Broman, 1978, 1979, 1987, 1989; Broman *et al*., 1987; Bryant *et al.,* 1996; Bush and Beail, 2004; Camp *et al*., 1998; Citizen, 1970; Coates and Lewis, 1984; Corbett, 1985; Decoufle and Boyle, 1995; Doll, 1962).

Globally defined, child assessment is the systematic use of direct as well as indirect procedures to document the characteristics and resources of an individual child. The process may be comprised of various procedures and instruments resulting in the confirmation of a diagnosis, documentation of developmental status and the prescription of intervention/treatment. A variety of assessment instruments have been criticized for insensitivity to cultural differences resulting in misdiagnosis or mislabeling. However, assessments have many valid uses. They allow for the measurement of change and the evaluation of program effectiveness and provide a standard for evaluating how well all children have learned the basic cognitive and academic skills necessary for survival in our culture. Given that the use of existing standardized instruments to obtain developmental information as part of the assessment process may bring about certain challenges, there does not appear to be a reasonable alternative. Thus, it becomes necessary to understand assessment and its purpose so that the tools which are available can be used correctly and the results can be interpreted in a valid way (Akoojee, 2003; Akoojee, 2005; Akoojee *et al*., 2005; Aman *et al*., 1985; Badger *et al*., 1981; Baroff, 1991; Batshaw and Perret, 1992; Bester *et al*., 2001; Biasini *et al*., 1998; Decoufle and Boyle, 1995; Gualtieri, 1991; Hauser and Ratey, 1994; Hauser, 1997; Hay *et al*., 2001; Heber, 1961; Helling *et al*., 2006; Jacobson, 1990; Joshua and Shapiro, 2006; Khan *et al*., 1997; Kraak and Hall, 1999; Kruss, 2002; Lewis and MacLean, 1982; Lowry and Sovner, 1991).

The four components of assessment, norm-referenced tests, interviews, observations and informal assessment, complement each other and form a firm foundation for making decisions about children. The use of more than one assessment procedure provides a wealth of information about the child permitting the evaluation of the biological, cognitive, social and interpersonal variables that affect the child's current behavior. In the diagnostic assessment of children, it is also important to obtain information from parents and other significant individuals in the child's environment. For school-age children, teachers are an important additional source of information. Certainly, major discrepancies among the findings obtained from the various assessment procedures must be resolved before any diagnostic decisions or recommendations are made. For example, if the intelligence test results indicate that the child is currently functioning in the mentally retarded range, while the interview findings and adaptive behavior results suggest functioning in a average range, it would become necessary to reconcile these disparate findings before making a diagnosis (Pary *et al*., 1995; Pennington and Bennetto, 1998; Polloway *et al*., 1997; Powers, 2005; Pulsifer, 1996; Reid and Ballinger, 1987; Reiss *et al*., 1982; Reiss and Szyszko, 1983; Rimmer, 1994; Rispens and Van Yperen, 1997; Roid and Miller, 1997).

In diagnosing infants or preschoolers, it is important to distinguish between mental retardation and developmental delay. A diagnosis of mental retardation is only appropriate when cognitive ability and adaptive behavior are significantly below average functioning. In the absence of clear-cut evidence of mental retardation, it is more appropriate to use a diagnosis of developmental delay. This acknowledges a cognitive or behavioral deficit, but leaves room for it to be transitory or of

ambiguous origin. In practice, children under the age of 2 should not be given a diagnosis of mental retardation unless the deficits are relatively severe and/or the child has a condition that is highly correlated with mental retardation (e.g., Down syndrome). An invaluable resource in evaluating and treating children with mental retardation is the child's family. Consequently, including the families of children with or at-risk for disabilities in every phase of intervention, from identification to planning to implementation through monitoring should be considered. However, including families in decisions about the treatment or management of their children's problems presents new challenges. Nevertheless, trying to understand and include families in the decision-making process can ultimately be rewarding and beneficial for all involved (Hay *et al*., 2001; Powers, 2005; Pulsifer, 1996; Temple *et al*., 2006).

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