Disabilities Research: Mental Retardation

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Mental Retardation, as defined by IDEA is the “... significantly sub average general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period, that adversely affects a child's educational performance (National Dissemination Center for Children with Disabilities, 2003).”

Mental Retardation is diagnosed by below average IQ functioning (70 or less) which occurs under the age of 18, and is accompanied by the lack of two or more adaptive life skills (National Dissemination Center for Children with Disabilities, 2003). Adaptive life skills include communication, self-care, home living, social skills, health and safety, and community use and work (The ARC, 2002). On average in the United States only 1% of the population is diagnosed as mentally retarded. Within this diagnosis there are four levels of mental retardation determined by intellectual functioning. They range from mild to moderate, to severe to profound. 85% of all cases of mental retardation fall into the mild to moderate range (Mastropieri & Scruggs, 2003).

There is no specific cause of mental retardation, however four areas of potential causes have been identified. These include genetic conditions such as PKU and Down’s syndrome, problems with pregnancy such as the consumption of drugs or alcohol, or problems at birth such as the lack of oxygen to the baby. Problems after birth such as childhood diseases (i.e. - chicken pox, measles, etc) can also lead to the onset of mental retardation. Finally, poverty and cultural deprivation such as malnutrition and lack of cognitive stimulation can be linked to mild cases of mental retardation as well (The ARC, 2002).
Children with mental retardation have the capability to learn, however they often learn at a slower rate than their peers. Students with mental retardation generally do not fit into a specific mold, rather they have varying strengths and weaknesses throughout all subject areas. As a result, adaptations for children with mental retardation vary considerably case by case. The following adaptations will be presented from the perspective of a teacher in elementary grades 1-6 for students with mild to moderate mental retardation.

One topic that reoccurs often in teaching students with mental retardation is the need to teach based upon life skills. Life skills are imperative to learn so that the student can have the knowledge and skills to operate successfully in society. Students with mental retardation also require the modification that information is presented from concrete and familiar to abstract and unfamiliar. In social studies curriculum, one way to adapt lessons to fit these needs is to teach mapping skills. Mapping skills are necessary in life and can also be taught using the needed modification. For example, Luftig (1987) identifies that in teaching mapping to students with mental retardation, teachers should use the following hierarchy. They should begin by exploring the student’s local environment spatially, followed by creating a map of the environment, then teaching the manipulation of maps using scales. Teachers should then help students make predictions about their maps (ex: “If I turned left out of our classroom, would I be heading to the gym or to the cafeteria?”). Finally, in upper elementary grades students can create their own maps of areas other than the home environment from a description. An additional modification for map making would be to introduce topographical maps using raised maps so that students could better manipulate them (Luftig, 1987).
Another instructional modification that is appropriate for students with mental retardation in the area of social studies is the modification of worksheets or graphic organizers (Mastropieri & Scruggs, 2003). As stated earlier, students with mental retardation often have the ability to learn concepts, however they do so at a slower pace. The text suggests modifying worksheets so that students can complete them in the time allotted. Teachers suggest reducing the amount of reading necessary to complete the activity, however it is necessary to make sure that the reading covers all of the main concepts so that the students do not lose out on material. For example, if students are asked to read a chapter out of their social studies text (ex: The Revolutionary War), they could be asked to complete a “POSSE” chart where they predict, organize, structure, summarize and evaluate the information in the chapter. This would be too time consuming for students with mental retardation who read and evaluate slower than other students in the class. Teachers could modify the worksheet so that the organization process is begun for them by including key vocabulary words to identify, and the summary and evaluation section could be combined to ask for only one main point (Mastropieri & Scruggs, 2003).

Another modification that is appropriate for students with mental retardation is the use of multi-sensory approaches to teaching (Luftig, 1987). The multi-sensory approach includes content accessibility, process accessibility and access to manipulation. Such a modification is especially useful in science class. Using this modification, students discover information on their own without being specifically taught the information through lecture. Lecture teaching is often hard for students with mental retardation to generalize to real life. However, in using a multi-sensory approach
application to real life is constantly present through manipulation of objects. For example, in teaching about plant life, students can be given a pot with dirt and seeds, and can plant the seeds and take care of the plants to discover how a seed grows. This is a much more realistic application than if the teacher were to simply lecture that a seed becomes a plant through sunlight and water. This way, the students can discover this process on their own, using concrete manipulatives to help them understand the concepts (Luftig, 1987).

Though hands on experiments are the best way to teach science, especially to students with disabilities, health and safety can be a concern, especially since students with mental retardation often lack experience with the life skills necessary to safely carry out laboratory tasks (Mastropieri & Scruggs, 2003). They should not, however, be limited in their exposure to these experiences. One modification that can be made is to the equipment and safety rules used in the laboratory. Velcro can be used to attach objects to the table, all equipment should be clearly labeled with bold writing, and equipment such as beakers should be ordered in larger sizes to make pouring tasks easier in order to eliminate spills. Following directions is key to safety in the science lab. Directions should be reviewed multiple times during the class period. Rules should be written on the wall in language that is easy to understand. All rules and directions should be color coded, from most important to least important, so the students can easily recognize the important tasks of the day. If each of these modifications is followed in the lab, students with mental retardation will have no problem navigating experiments as easily as other students (Mastropieri & Scruggs, 2003).
As discussed above, students with mental retardation often have trouble generalizing information from one setting to another (Mercer, 1998). This can present a problem, as skills learned in the classroom may not be utilized elsewhere because of generalization problems. Mercer’s text describes teaching modifications to help students generalize learning. In a classroom with students with mental retardation, an appropriate lesson to use this modification in would be a math lesson on money. Mercer breaks down the process of teaching to promote generalization into steps. Step one indicates that teachers should develop a motivation in the students to learn. For example, teachers could discuss how using money is a responsibility that all people have. Secondly, throughout the process of instruction teachers should stop to discuss why a math skill is being learned. Teachers could discuss that the class is learning about money because when they grow older they will have to know how to make change and give correct amounts of money to cashiers in order to buy food and clothes, etc. Thirdly, teachers should provide students with a variety of examples or experiences that involve the use and practice of money. The class could open a class store where the children can play “shopper” and “cashier” and help each other make change In another lesson they could manipulate coins as one would in a bank, sorting and identifying. Varying the people who teach the lesson also helps with generalization. For example, one lesson could be taught by a teacher and another by a paraprofessional, etc. A final way to teach generalization is to teach students to solve problems pertinent to their daily lives and to reinforce behaviors that would occur in the natural environment. This skill could be reinforced during the store activity. Stores are activities pertinent to daily living, and the teacher can explicitly reinforce the correct behaviors in the checkout line (Mercer, 1998).
According to Mastropieri and Scruggs (2003), students with mental retardation may also have problems acquiring math concepts and remembering procedures for solving. One suggestion for a modification to counteract such problems is to teach acquisition through practice. Counting, for example, can be a difficult concept for young students with mental retardation. The book suggests that while teaching counting, to use acoustic counting where each number is recited in sequence. Have students start in a large group where they can model other students. Begin with a few numbers (such as one through three), and practice with students and have them clap as each number is said. Slowly introduce more numbers and continue practicing several times each day until counting abilities are acquired (Mastropieri & Scruggs, 2003). As students acquire more counting abilities they may no longer need the support of a group and can being to exercise skills in an individual setting.

In writing these modifications for students with mental retardation, I have learned many things about the importance of inclusive education. The fact that I consider most important to the paper, is that students with mental retardation have the capabilities to learn just as every other student has, however they often require modified instruction and pace. They should not automatically be separated from the class because of their diagnosis. By using the above modifications, as well as others implemented with the assistance of a special educator, students with mental retardation can be successful in any setting.

However, because of the broad range of capabilities that students with mental retardation possess, modifying activities for students can be complex and time consuming. It is important to keep the standards of the class aligned with each
modification, so that the student receives the best education possible. Many of the modifications I came across can be easily built into any lesson with careful planning and consideration.

In teaching students with mental retardation I believe the most important concept to keep in mind, is that life skills are pertinent to the child’s education, and whenever possible, they should be incorporated into a lesson. All other modifications are based upon this concept, as it is of central importance that students with mental retardation are taught the skills and concepts that are necessary to live successfully in the community as both a child and an adult. In conclusion, I believe that the modifications described above will greatly assist both the teacher and students in creating a positive and beneficial education for students with mental retardation.


http://www.nichcy.org/pubs/factshe/fs8txt.htm