**MLRC History**

The Minnesota Learning Resource Center (MLRC) was established in July of 1999 through funding approved by the state legislature during that year’s session. The main mission of the MLRC is to train teachers in the methods designed by A Chance To Grow (ACTG) and to assist in the replication of the programs in public schools throughout the state. This mission is accomplished through MLRC professionals training teams of teachers and then providing follow-up, on-site mentoring based on a three-year model.

ACTG was founded in 1982 by a group of parents looking for better outcomes for their disabled children. Today it is a multi-service human service agency headquartered in Minneapolis governed by a board of directors and subject to state and federal guidelines. ACTG promotes the maximum development of the whole child, serving a continuum of children ranging from “normal” to learning disabled and brain injured, through innovative, individualized and comprehensive brain-centered programs and services.

**Simple, Affordable and Replicable Learning Interventions**

ACTG’s work with learning disabled and brain-injured children led to the discovery of learning interventions that could help all children do better in school and in life. The MLRC promotes the use of these state of the art brain development tools to maximize the potential of every child in school. The interventions are:

**Stimulating Maturity through Accelerated Readiness Training (S.M.A.R.T.)**

A combination of physical and classroom activities, the curriculum stimulates high levels of pre-academic and early academic development among all children, from those at risk for failing due to receiving too little early stimulation to those fully prepared for academic learning. Students complete an obstacle course of activities which includes floor mats, re-bounders, overhead ladders, balance beams and spinning activities designed to improve hand/eye coordination, vision, fine motor skills, sequencing, left/right awareness and spatial relations.

**Johansen Individualized Auditory Stimulation**

Many children with learning problems have trouble processing sound. Students participating in JIAS listen to music CD’s 20 minutes a day that have been specifically formatted to stimulate their individual under-developed auditory skills. JIAS leads to improved auditory processing skills that allow the student to engage more easily in the classroom environment. This leads to improvements in basic reading de-coding skills and reading development.
Neurotechnology - Neurotechnology techniques are used to help children with attention problems, hyperactivity and other learning and behavioral problems achieve a calm and focused state. MLRC offers training in Audio Visual Entrainment (AVE) and EEG Neurofeedback. Children using these interventions demonstrate significant improvement after completing 30 - 40 sessions, with some children able to avoid, reduce or eliminate medication for hyperactivity, inattention and anxiety.

MLRC Training & Program Implementation for S.M.A.R.T. Schools

S.M.A.R.T. Teachers Get S.M.A.R.T.
Each year, the MLRC trains teachers from schools across the state and country. Throughout the school year and summer months, teams of educators attend S.M.A.R.T. workshops, either in Minneapolis or at various locations around the country. At the workshop they learn MLRC interventions and specific activities that, done over a given period of time, prepare children to learn. To date, the MLRC has worked with 250 schools across 12 states involving the training of over 3,000 teachers affecting more than 55,000 students.

Teachers benefit, even those with many years of classroom experience, from the training and mentoring. One Minnesota principal of two schools indicated recently that, while he knows S.M.A.R.T. is helping the students, he is particularly pleased with how the teachers' approach with the children has changed since the schools have become S.M.A.R.T.. He reports that because they have a better understanding of how a child’s brain develops, thereby affecting classroom performance, there is less blame placed on the child and, instead, the teachers are empowered with developmentally appropriate interventions to address those issues.

Workshops & Mentoring
Workshops for any of the three programs are held mainly during the summer months, but also throughout the school year. Some of these are held at the MLRC Training Center in Minneapolis and several are held in locations across the state and nation. In a given year, the MLRC hosts some 15 workshops, the majority held during the summer, which allows schools to send teams to regional trainings.

S.M.A.R.T. Schools
School’s can elect into an agreement of expectations with the MLRC that outlines each party’s responsibilities and indicates its commitment to replicate a program, and become a S.M.A.R.T. School. The number of schools the MLRC has worked with since 1999 has increased steadily each year and, as of today, 250 schools have been served by the MLRC with more on the waiting list to become S.M.A.R.T. School’s next year.

The funds provided by the state legislature, federal grants and, in some cases, individual school districts, have allowed schools to implement the MLRC's effective readiness programs, allowing them to become embedded in the school's culture as a standard intervention used in preparing children to learn.
On-site Mentoring is one of the major differences about the S.M.A.R.T. program as compared to other workshops. The MLRC provides on-site mentoring services, by an MLRC professional, to the S.M.A.R.T. Schools based on a three-year model. The Recommended Model involves up to six mentoring visits during the first year, up to four visits during the second year and three visits during the final year. This is the preferred model for all S.M.A.R.T. Schools but is adjustable based on a contract for services as determined between the S.M.A.R.T. School and MLRC.

The MLRC mentors are all experienced professionals with strong backgrounds in the area of education. Together the team has developed the S.M.A.R.T. workshop and a Curriculum Guide that serves as a handbook, detailing all of the program activities. The MLRC team includes a former elementary school principal, a certified occupational therapist, a DAPE certified physical education teacher, reading and vision specialists and a number of former classroom teachers. These professionals provide mentoring service that includes:

- Individual program consultation and observation
- Meeting with the school S.M.A.R.T. team of staff and administrators
- Providing recommendations to keep the program moving forward
- Addressing parent and community groups about the S.M.A.R.T. program
- Gathering data to confirm that the program is on track for expected gains

**S.M.A.R.T. Documented Success**

The MLRC is well aware that students benefit greatly from the S.M.A.R.T. program as reflected by test scores collected and analyzed each year. Although it is recognized that Curriculum Based Measures are a meaningful way to track student gains for the local school district, the MLRC works with districts to determine appropriate nationally normed measures for use in comparing S.M.A.R.T. student growth.

At the Kindergarten level, the Metropolitan Readiness Test 6, Level 2 is often used as a reliable readiness measure. The MRT6 is a widely-recognized, nationally-standardized, scripted, test of readiness for reading and early math levels, presented appropriately in several sessions for Kindergarteners.

The MRT6 supplies four global scores in the areas of Beginning Reading Skill, Story Comprehension, Pre-Reading Composite (combining Reading Skill and Comprehension scores) and Quantitative Concepts.

The measure selected for use with first and second grade S.M.A.R.T. students is word identification on the nationally standardized Slosson Oral Reading Test (SORT-R3) wordlist. The SORT-R3 provides an indication of the visual recognition language ability rather than decoding through phonemic/phonetic analysis.

A summary of S.M.A.R.T. Kindergarten, 1st and 2nd grade students in Minnesota has been completed and specific information is cited below. Other MLRC data and reports are available online at www.themlrc.org.
Kindergarten - Metropolitan Readiness Test 6, Level 2 (MRT) shows that two of every three S.M.A.R.T. Kindergarten students scored above the national mean for reading readiness.

The MRT's Pre-Reading Composite is a combination of scores from Beginning Reading Skills and Story Comprehension. When testing 412 Minnesota Kindergartners from 18 classrooms, the scores from the Pre-Reading Composite distribution shown in the graph below reveal that:

- Only 9% of the students scored in the lowest quartile in reading readiness versus the expected 25%
- 72% scored above the national mean versus the expected 50%
- 91% scored in the average range or superior
- 31% scored at the superior level

The 9% of students who ranked in the lowest quartile are expected to improve to normal levels with a second year of S.M.A.R.T. stimulation. S.M.A.R.T. produces high-level results in 1st grade readiness for reading among regular students, including students who are at-risk of academic difficulties such as economically disadvantaged and racial/ethnic minorities.

In addition, the MRT scores of the 412 S.M.A.R.T. Kindergarten students tested in Quantitative Concepts display the high proportions and levels of readiness predicting success in primary-grade mathematics curriculum:
• 85% scored at normal levels or higher
• 61% scored above the national mean
• 31% scored in the highest quartile

Distribution on the graph below shows that these regular S.M.A.R.T. Kindergarteners are performing at expected levels of maturity compared to national norms. These students are predicted to make steady progress in primary-grade mathematics curricula.

1st and 2nd Grade - The reading measure selected for use with 1st and 2nd grade S.M.A.R.T. students is word identification on the nationally standardized Slosson Oral Reading Test (SORT-R3) wordlist. At the end of 1st grade, the median class is expected to read at grade level 2.0. When testing 403 Minnesota students from 21 classrooms, graph scores below reveal a half-year advantage to the median S.M.A.R.T. 1st graders who scored at 2.5 grade levels.

Over→
And, when testing 271 2nd grade students involving 17 classrooms, the advantage for the median S.M.A.R.T. class increased even more to 3.8 reading level compared to the expected 3.0 at the end of two years of reading instruction.

Over two years of S.M.A.R.T. stimulation, the teachers of the median classes were able to boost the acquisition and retention of word recognition by almost one year before entering third grade. Half of the S.M.A.R.T. classes achieved at higher levels than the median class.