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#### ABSTRACT

North Carolina's Schools Attuned program offers teachers an instructional approach that helps increase students' classroom success by assessing strengths and weaknesses that influence learning. Approximately 400 teachers participated in the program's first year, 1998-1999, and an additional 400 began training in 1999-2000. Teams of teachers from a school receive intensive training in the summer, followed by monthly meetings during the school year. In the first program year, the evaluation team worked closely with program developers to refine the evaluation design and determine measurement strategies. During the second implementation year, evaluators are continuing to document the implementation process while placing more emphasis on outcome evaluation. Evaluators have been asked to expand the strategy as Schools Attuned begins operating as a national program. Throughout the evaluation, the collaboration between evaluators and program developers has heightened the evaluation effort. The initial evaluation design benefitted from the input of program developers, and evaluation information shared with program developers allowed for adjustments in program implementation. Evaluators and program developers emerged from the collaboration better able to assess the effects of the Schools Attuned Program. (SLD)



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# Collaborative Evaluation of Schools Attuned

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### Collaborative Evaluation of Schools Attuned

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#### Overview

The Schools Attuned program offers teachers an instructional approach that helps them increase students' classroom success by assessing strengths and weaknesses that influence learning. Beginning with the 1998-99 academic year, Schools Attuned received support from the North Carolina legislature to implement the program in 42 different schools across the state. Approximately 400 teachers participated in the program that first year and another 400 teachers began training in 1999-2000 with a third cohort to begin in Summer 2000. Teams of teachers from participating schools receive intensive training in the summer, followed by monthly meetings during the school year which are intended to assist teachers with understanding the approach and implementing it in their classrooms.

During the first year of implementation in North Carolina, the evaluation team worked closely with program developers to refine the evaluation design and determine measurement strategies. The emphasis in the first year was to document what occurred as well as to pilot-test outcome evaluation approaches. During this the second implementation year, evaluators continue to document the implementation process while placing more emphasis on outcome evaluation. Additionally, the evaluators have been asked to expand the evaluation strategies to the national Schools Attuned program, which this summer will begin training teachers at nine sites throughout the United States.

Throughout the evaluation, the intentionally collaborative approach between evaluators and program developers has heightened the evaluation effort. The initial evaluation design benefited greatly from the input of program developers. Evaluation information shared in a timely manner with program developers allowed for needed adjustments in program implementation. Development of certain outcome instruments required concerted collaboration. Together evaluators and program developers have emerged from the collaborative process better able to assess the effects of the Schools Attuned program implementation.



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### Background

Dr. Mel Levine, drawing on more than 20 years as a pediatrician, developed a model of components (neurodevelopmental constructs) important to learning that would help families and clinicians better understand learning difficulties. In 1987, soon after coming to the Center for Developmental Learning at the University of North Carolina at Chapel Hill, Dr. Levine was awarded a 1.2 million grant to develop and disseminate a comprehensive professional development program for use with teacher in schools and named it Schools Attuned. Since then more than 5,000 teachers (in 38 states as well as Canada and Denmark) have been trained to use Schools Attuned techniques in their classrooms. In 1998, the North Carolina legislature approved the dissemination of Schools Attuned throughout the state. Critical to the North Carolina Schools Attuned initiative is evaluation. Dr. Rita O'Sullivan and members of her evaluation team were engaged to evaluate the North Carolina Schools Attuned effort, thereby developing prototypical evaluation strategies for future endeavors.

The Schools Attuned model, as developed by Dr. Mel Levine, is clinically grounded and supported by extensive research literature. Each of the neurodevelopmental functions within the eight constructs of the model are commonly written about and observed by clinicians, educators, and researchers as important to students' academic success. Thus the validity of the neurodevelopmental constructs has been adequately established. Beyond construct validation of the model, however, and more important to All Kinds of Minds is validation of the model's application. This is to say, "Does using the model actually result in improved achievement for students?" Systematic evaluation of the model's application should be the key issue for Schools Attuned.

For the past 10 years, Schools Attuned has survived and continues to grow, which means that its face validity among practitioners has been soundly established with an additional 800 participants expected to begin training in Summer 2000. Further, anecdotal evidence abounds about the positive effects of the program for children, including the WGBH television series to be broadcast in January 2001. Data are emerging from the evaluation of the North Carolina Schools Attuned program, begun in 1998, that suggest positive teacher and student outcomes. Given projected expansion of the National Schools Attuned program, continued, broader-based, and more formal evidence of program effectiveness is certainly warranted.

### • Evaluation Framework

Schools Attuned is an instructional approach that assumes changes in teachers' (or any educators') understanding of neurodevelopmental constructs and their functions will allow them to work more successfully with students who experience difficulty learning. Based on this new understanding, the teachers are expected to implement changes in their classrooms that should result in a number of positive students outcomes, including improved achievement and other classroom success factors. The most common sequence of events for effective instructional programs is:

#### Teacher Training → Teacher Understanding → Classroom Changes → Student Success

From an evaluation viewpoint, each of the events must be evaluated in sequence. A poor training program is unlikely to produce positive changes in teacher understanding. If teachers'



understanding does not change, classroom modifications are unlikely. Similarly, the types of changes made in the classroom will influence the desired final outcome of improving students' classroom success. This is particularly true with programs that evolve and improve over time. As programs emerge, evaluation of training and of participants' understanding that results from training (formative evaluation) is extremely important. As programs become more established and the quality of the training assured, then evaluation of outcomes (summative evaluation) becomes more important.

### **Evaluation Findings**

North Carolina Schools Attuned has afforded programmatic and evaluative opportunities for All Kinds of Minds. Two summers have yielded approximately 800 teachers and educators from almost 20 different school districts in the state who are participating in the program. State support for Schools Attuned has created a laboratory for evaluation that can be exported with some modifications to the National Schools Attuned efforts. With North Carolina Schools Attuned, we have followed the evaluation framework described above that looks at the sequence of Teacher Training to Teacher Understanding to Classroom Changes to Student Success. We have emphasized formative evaluation during the first year so that we could provide feedback to the program developers that would allow them to modify the program as needed. We also have developed a number of evaluation strategies and tools so that we are poised to begin a more summative evaluation of the project this year.

### TEACHER TRAINING

Where We Are		What We Know	What We Are Learning	
•	<b>Evaluation of Training</b> has been a strong evaluation component for some time. For North Carolina Schools Attuned we added a mid-year <u>Participant</u> <u>Phone Interview</u> to determine how teachers and other school staff in the program viewed the quality of the activities and their participation	Participants are generally positive about their participation. This evaluative information did trigger some refinements to the program.	Ways program developers continue to improve the program	

### TEACHERS' UNDERSTANDING

	Where We Are	What We Know	What We Are Learning
•	Building on two complex case studies used in training, evaluators and program staff developed scoring criteria to compare participants' enhanced ability to use neurodevelopmental constructs.	Refinement of the scoring process continues. Case studies were completed by all 1999-00 participants during summer 1999 training.	Extent that participants in the program understand Schools Attuned



Where We Are		What We Know	What We Are Learning	
•	<u>Changes in Teacher Behaviors</u> can now be compared using a pre- and post- survey that asks teacher how they respond to students with various learning difficulties.	Teachers report relying less on outside assistance (e.g., special education teachers, counselors, etc) and more on instructional strategies (e.g., individualizing assignments, demystification, etc.) with students experiencing difficulty.	How teachers are changing strategies that they use in their classrooms to help students succeed	
•	<u>Demonstrating Schools Attuned in Action</u> was pilot tested by video-taping 4 teachers during a half-hour lesson and then having them explain how what they did in the classroom is related to their understanding of Schools Attuned. Students' understanding of the program also was assessed through focus groups and drawing.	Additional pilot testing is needed for this promising source of rich evaluation information	Once teachers understand Schools Attuned, extent that they change their classroom practices	
•	<u>Changes in Classroom Climate</u> is tracked using a survey of students, specifically developed for Schools Attuned, that was successfully pilot-tested during spring 1999. For the 1999-00 school year, students in all North Carolina Schools Attuned classrooms will complete a pre- and post- assessment of their classroom environment.	To measure the validity of the survey, a factor analysis was conducted and confirmed that the classroom climate survey had construct validity. Student results will be available summer 2000	Students perceived changes in their classroom environment, relative to School Attuned	

### CLASSROOM CHANGES

### STUDENT SUCCESS

Where We Are		What We Know	What We Are Learning	
	1999-2000 teachers will complete end-of-year surveys that will share changes in students standardized test scores in relation to teachers' use of Schools Attuned with these children	Results should be available by Summer 2000	Whether student achievement improves as a result of Schools Attuned	
•	For a sample of students in North Carolina. Standardized test scores for students in participants' classrooms will be compared with their previous year's scores.	Wake and Durham, NC school districts are making scores available and analyses should be completed during 2000		
•	A self-concept measure was pilot tested in 4 classrooms to make sure it was appropriate for the age groups. For the 1999-00 school year, students in all North Carolina Schools Attuned classrooms will complete a pre- and post- assessment of their self- concept.	Results from the pilot testing were positive.	Whether other student outcomes, including self- concept, improve as a result of Schools Attuned?	



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### Recommendations for All Kinds of Minds Evaluation Efforts - Year 2000

After 18 months, the North Carolina Schools Attuned evaluation is well on its way to gathering more evidence to answer the "What We Need to Know" questions. Unlike research that occurs in controlled environments, evaluation of programs in schools settings is an approximate science at best or rather a series of progressively more convincing approximations. Case-control methodology is resource intensive and not terribly useful with school events. More often than not, the time, money, and energy expended in identifying and maintaining control groups yields unsatisfactory findings. Rather, it is internally more valid to have students and teachers as their own controls in pre-test/post-test situations. Similarly, replications of positive findings (across participants and across sites) build extremely convincing evidence of program effectiveness. If Schools Attuned can demonstrate that students in participant North Carolina classrooms show greater than average academic growth for their school district and the same can be said for students in New Jersey or New Mexico, then the cumulative evidence becomes progressively weightier. Based on these considerations, I make the following recommendations for evaluation:

- Focus on the national implementation of Schools Attuned.
- Expand the North Carolina collaborative evaluation approach so that external evaluators work with program developers to integrate evaluation into the national Schools Attuned programs.
- Adapt instruments and evaluation practices developed for North Carolina Schools Attuned for the national program.
- Continue to support evaluation activities that will gather successively convincing evidence to convey detailed stories of the effectiveness of School Attuned.

### **Evaluation Plan for National Schools Attuned**

The National Schools Attuned program should be the central, immediate focus for the All Kinds of Minds evaluation. The North Carolina Schools Attuned program has had 350-400 participants each year with teams of teachers participating from the same school. Given these numbers and a service delivery system that has multiple teachers at one school, the North Carolina Schools Attuned evaluation should continue to provide a laboratory for instrument development and for testing evaluation methodologies. This said, an evaluation focus on the National Schools Attuned program would encompass: 1) modifying and integrating proven evaluation methods into the National Schools Attuned curriculum, 2) developing uniform and user-friendly mechanisms so that evaluation information is summarized and shared with appropriate stakeholders in a time and cost effective manner, 3) strategically designing studies, conducted by the external evaluation team, that will permit the collection of progressively convincing evidence of the effectiveness of Schools Attuned.

#### Importance of Working Collaboratively

Evaluation of the National Schools attuned program should occur through collaboration among program evaluators, developers, trainers, and implementers. To develop a useful, cost effective evaluation approach all stakeholders need to be actively engaged in the evaluation efforts. Just as evaluators strive to collect and make sense of evidence across national training center sites, trainers need to make sense of evidence across the many teachers they train, and teachers need to make sense of their observations of student behaviors. All of these are evaluation activities, and they need to be carefully developed.



### Plan of Evaluation Activities

### Winter 2000

- Develop detailed evaluation plan with input from National Schools Attuned faculty
- Review All Kinds of Minds Documents relevant to National Schools Attuned program
- Contact Training Centers to determine current practices and gather suggestions for the evaluation
- Examine North Carolina Schools Attuned Evaluation results for adaptation to National Schools Attuned

### Spring 2000

- Work with National Schools Attuned program staff to identify opportunities to imbed evaluation into curriculum practices.
- Select 4 national training center sites for cross-site studies
- Prepare evaluation instruments for summer training activities
- Present evaluation design to National Training Faculty for discussion during scheduled training
- Modify evaluation plans as needed based on National Faculty review

#### Summer 2000

- Distribute evaluation instruments to National Faculty
- Determine data collection and data summary needs for each National Training Site
- Observe Schools Attuned Training at National Training Centers
- Develop evaluation plans for each of the National Training Sites

#### Fall 2000

- Distribute students climate and self-concept instruments to National Training sites as requested.
- Summarize data as requested for National Training sites
- Conduct site visit to National Training sites and interview selected Schools Attuned participants
- Provide technical assistance in evaluation as needed to National Training Sites

#### Winter 2001

- Review and revise evaluation plan with input from National Schools Attuned faculty
- Review All Kinds of Minds Documents relevant to National Schools Attuned program
- Contact Regional Training Centers to evaluate mid-year implementation
- Re-examine North Carolina Schools Attuned Evaluation results for adaptation to National Schools Attuned

#### Spring 2001

- Continue to work with National Schools Attuned program staff to identify additional opportunities to imbed evaluation into curriculum practices.
- Revise evaluation instruments as needed for summer training activities
- Present National Schools Attuned evaluation design to National Training Faculty for discussion during scheduled training
- Modify National Schools Attuned evaluation plan as needed based on National Faculty review

#### Summer 2001

- Distribute evaluation instruments to National Faculty
- Hold Schools Attuned Evaluation Showcase to share national and site evaluation results
- Revise as needed data collection and data summary needs for each National Training Site
- Observe Schools Attuned Training at National Training Centers
- Revise evaluation plans for each of the National Training Sites
- Collect available student achievement data for 2000-2001 academic year





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