



All Kinds of Minds®

A NON-PROFIT INSTITUTE FOR THE UNDERSTANDING OF DIFFERENCES IN LEARNING



Evaluating the Effects of Schools Attuned on Teaching Practices and Student Achievement

EXECUTIVE SUMMARY

In March 2003, the All Kinds of Minds Institute commissioned an independent panel of eight education research experts. The charge of the panel was to evaluate the quality of 12 proposed research studies of the Schools Attuned program submitted by independent researchers from universities and research organizations nationwide. Based on the expert panel's evaluations and recommendations, All Kinds of Minds contracted with the Center for Educational Assessment at the University of Massachusetts Amherst (UMASS). Research began in December 2003. The UMASS study examined the effects of the Schools Attuned program on teachers, teaching practices, and statewide Math and Reading achievement test data in North Carolina and Oklahoma. The UMASS research team was led by Principal Investigators Dr. Steven G. Sireci and Dr. Lisa A. Keller.

Research Questions and Methodology

This study involved two major components. The first component was a large-scale survey of teachers and other educators in North Carolina and Oklahoma who had participated in the Schools Attuned program. Four hundred and twenty-one educators reported on the strengths and limitations of the Schools Attuned program, their use of teaching strategies and practices learned in Schools Attuned, and the effects of the program on student outcomes. >

The second component of the study involved separate analyses of statewide standardized testing data. The purpose of these analyses was to determine the effect of the Schools Attuned program on student academic achievement. In one set of analyses, researchers examined the performance of North Carolina students on the state's End-of-Grade Math and Reading tests. These analyses used student-level data for grades 3 through 8 for the years 2003, 2004, and 2005.

A second set of analyses examined the performance of Oklahoma students on that state's statewide Math and Reading tests. These analyses used data for students in grades 3 through 8 for the years 2005 and 2006. However, to maintain anonymity, the data supplied to the research team by the Oklahoma State Department of Education only included data at the classroom level; individual student data were not available for these analyses.

Results and Conclusions

Teacher Instructional Practice

- Teachers generally understood how to implement Schools Attuned strategies and valued the skills they had gained, particularly learning how to identify students' strengths and weaknesses.
- Teachers reported high frequency of implementation of Schools Attuned strategies and felt confident with respect to the way they implemented these strategies.
- A majority of educators reported that Schools Attuned increased their ability to work effectively with their students, including their ability to protect students from humiliation, modify instruction based on learning profiles, and communicate more effectively with both students and parents.

Student Outcomes

- Teachers reported moderate positive effects on student outcomes of self-concept, motivation, behavior, attitude toward school, engagement and social interactions, and small positive effects on student course grades and standardized test scores due to Schools Attuned.
- Analyses of North Carolina End-of-Grade test scores in Reading and Math for students in grades 3 through 8 for the years 2003 through 2005 within test years showed several statistically significant differences between the comparison groups. There was also a tendency for middle school students taught by Schools Attuned teachers to score in the "Superior" level of these tests, in comparison to students taught by other teachers. However, the researchers noted that the absolute sizes of these observed differences were small in practical terms.
- Middle school students associated with Oklahoma teachers who had participated in Schools Attuned scored slightly lower on the Oklahoma Math and Reading tests relative to students who were associated with other teachers. Researchers postulated that schools with relatively lower performing students may have sent their teachers for participation in Schools Attuned. If so, the observed reduction in the achievement gap between these two groups that occurred between 2005 and 2006 could be encouraging.
- Researchers noted certain limitations of using statewide achievement test data to analyze the effects of Schools Attuned on student achievement. Statewide achievement tests are designed to provide only an overall estimate of students' proficiency in general subject areas, and are not likely to be sensitive enough to detect minor, but meaningful improvements in student achievement.

- Researchers concluded one of the strengths of Schools Attuned is that it is not limited to academic outcomes, as many programs are, but that it considers the whole child and provides a supportive environment where students, teachers, and parents work together to understand students and their needs to best meet the academic goals.

Key Recommendations

Based on their experiences in conducting this study and their findings, researchers made the following recommendations for future studies:

- Future research investigating the effects of Schools Attuned on student achievement should use multiple outcome measures, particularly ones that are likely to be most sensitive to the types of achievement the Schools Attuned program is designed to influence.
- Given the limitations of statewide data for measuring many meaningful types of student achievement, future studies may focus on gathering longitudinal evaluation data from schools with which researchers can develop close collaborations.

How This Study Informs All Kinds of Minds Programs

A key outcome of a rigorous research agenda is to respond to what is learned in order to provide the best programs possible. Since the launch of the multi-year UMASS study, All Kinds of Minds has been engaged in continuous improvement informed by cumulative results of this, as well as many other research activities. Results of these studies point to positive outcomes for students and teachers in areas associated with learning and school success, as well as ways in which

our programs may be modified to increase usability and effectiveness. UMASS results, for example, supported an enhanced understanding of the theory of change behind the Schools Attuned program, articulated in the *Schools Attuned Impact Model*. This model provides explicit links between program activities and intended outcomes of the program at the teacher, school, and student levels. In addition, results of this and other studies provide support for recent refinements made to the *Management by Profile* process in Schools Attuned. This process now provides explicit support for applying Schools Attuned through a protocol of Observation, Neurodevelopmental Analysis, Management, and Measurement of Impact. Built directly in to the Management by Profile process is a comprehensive procedure based on systematic data gathering, analysis, and measurement of outcomes.

For more information about All Kinds of Minds or the Schools Attuned Program:

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