General education faculty involved in inclusive education efforts often lack the common vocabulary and basic skills needed to comfortably collaborate with their special education colleagues. This frequently leads to a “mine” versus “yours” mentality regarding students with special needs. Schools Attuned, a professional development and service delivery program, is described here as a potential model for collaborative intervention. Using Schools Attuned to perpetuate a three-tier model for support and intervention allows educators to come together with a shared vision, common principles and language, and additional skills. This article describes Schools Attuned, identifies its potential role in creating a collaborative atmosphere for inclusive education, and reviews its limitations and benefits.
the least restrictive environment (LRE) and as high-stakes testing continues to gain momentum, we propose two possible scenarios.

First, the divide between special and general education might become more divisive as general and special educators are mandated to unite so that remediation of academic and social challenges of students with disabilities in inclusive settings can be implemented. Second, general and special educators will unite willingly and a new collaborative system of serving students with disabilities will result. While certainly preferable, the latter is unlikely as it will require a major change in the cultures of schools. Without a common language, a shared vision, a set of guiding principles, and powerful intervention strategies a unified system of education is, at best, difficult. With two separate educational systems, general educators will continue to feel marginalized as they attempt to include students with disabilities in their classrooms. Special educators will continue to feel excluded and frustrated as they try to provide the LRE for students with disabilities.

There is hope, however. Dr. Mel Levine has proposed a new philosophy of working with students with learning difficulties that provides opportunities for exactly what is needed in today’s educational environment. This vision includes what was lacking previously, namely a common language, shared vision, set of guiding principles, and powerful intervention strategies. More important, his model, called Schools Attuned, provides educators with a delivery system that is highly feasible and provides both general and special educators with the tools needed to collaboratively serve students with learning difficulties. We contend that the Schools Attuned program is exactly the type of impetus needed to engage general and special educators in truly collaborative and inclusive forward action for working with all students. In addition, we propose that Schools Attuned provides a framework that can be used to implement a three-tiered model of intervention. This three-tiered model can enhance special and general education collaboration and has the potential to result in more effective methods of providing services for students with and without disabilities in general education classes.

**Schools Attuned**

**Definition and Philosophy**

Schools Attuned is a professional development program designed around the work of Dr. Mel Levine and implemented through the All Kinds of Minds Institute (www.allkindsofminds.org). As a pediatrician, Dr. Levine has focused his academic inquiry on observing how students learn and on significant discoveries in neuroscience. His neurodevelopmental approach is based on more than 25 years of research on brain-based learning (Rubin, 2002). These years of research with students led Dr. Levine to develop the philosophy that all students learn differently based on how their brains are “wired.”

Embedded into the Schools Attuned service delivery program are nine principles that have resulted from his years of study:

1. view the learner’s neurodevelopmental diversity in a positive way;
2. value and stress the developmental nature of the learner’s profiles;
3. be specific in understanding the learner’s strengths and weaknesses;
4. avoid labeling and emphasizing the phenomena that the learner exhibits;
5. collaborate among all the stakeholders in the learner’s life, including the professional, the parents, and the learner;
6. reinforce the learner’s strengths and affinities and remediate the learner’s weaknesses;
7. make the learner aware of his or her learning challenges, as well as strengths and affinities;
8. instruct the learner about how he or she learns while engaged in academic subjects;
9. help the learner see his or her potential for a productive and gratifying life (Levine, 2002).

Most educators would certainly agree that these principles are foundational for both special and general educators. Certainly, schools today are facing increasing numbers of diverse students who exhibit an array of learning needs, not merely those individuals with identified disabilities. Engaging in dialogue around these principles is a first step to ensuring that all persons involved in collaboration and inclusion are sharing a common vision for their school in terms of the way students are viewed, treated, and taught.

**Training**

The All Kinds of Minds Institute has provided professional development training in the Schools Attuned model since 1987 (Rubin, 2002). To date, more than 19,000 educators have been trained nationally; in fact, North Carolina and Oklahoma have both adopted Schools Attuned as statewide initiatives. Currently, in order to be trained in the Schools Attuned model, in-service faculty (i.e., teachers who are already in the field) can volunteer to attend the weeklong training. Training programs are commonly dictated by administrators and those in district offices but not with Schools Attuned. Participants are asked to volunteer to attend the 35-hour training and to commit to being involved with ongoing support in this area. Once training is completed, ongoing consultation is provided via an assigned mentor who is able to come directly to schools to work with the trained teachers. Participants
also have access to online support (www.schoolsattuned.org) and are asked to complete a case study assignment (through an online practicum) to be certified. Reunion or refresher meetings are also scheduled throughout the year following the training.

During the training, participants (predominantly general and special education faculty, but increasingly involving administrators, school psychologists, and other school-based personnel) learn about the principles of Schools Attuned and are then introduced to the eight neurodevelopmental constructs and their impact on student learning. Levine (2002) asserted that students should not be viewed as having disabilities in learning. Instead, by looking at the various neurodevelopmental constructs, he claims that all students are simply “wired differently,” thus each individual child learns in a unique way. This philosophy is what led to Schools Attuned and is the underpinning of Dr. Levine’s best-selling books, entitled A Mind at a Time (2002) and The Myth of Laziness (2003).

Once participants are introduced to the neurodevelopmental constructs and the way in which they manifest themselves in individual learners, the facilitators teach participants how to use specially designed protocols to involve parents, teachers, and students in an assessment and diagnostic process. These protocols allow faculty to attune a student—basically, a process designed to ascertain how that student learns and what strengths and areas of need the student has—based on input from the student, a family member, and the teachers. Although this is an elaborate and somewhat time-consuming process, facilitators have emphasized that teachers are not encouraged to “attune” every one of their students, merely those for whom additional information is needed.

Following instruction on the attuning process, participants are then provided with extensive handbook resources (which they can take back to their schools) that provide numerous strategies for working with students with different learning needs. The resource notebook and the facilitators have emphasized focusing on students’ strengths rather than focusing primarily on students’ areas of weakness. In addition, a primary focus of the training and the strategies provided are to reassure teachers that all children learn in different ways and powered by that knowledge, the training, and the additional strategies, faculty can work with all students to enhance their learning, rather than rely on the method of referring and placing students in special education for remediation or retention.

Another key aspect of the training is the notion of demystification, a process by which faculty work to help students understand their own learning process. By teaching students what their personal areas of strengths and needs are and what compensatory strategies they can use to help maximize their own learning, faculty are empowering students to be self-advocates. For many students, demystification removes the shame felt due to a lack of success in school. It also helps students understand that all minds are unique and that their affinities, strengths, and challenges are best suited to certain pathways in life. As Levine pointed out in the beginning of the book A Mind at a Time (2002),

Planet earth is inhabited by all kinds of people who have all kinds of minds. The brain of each human is quite unique. Some minds are wired to create symphonies and sonnets, while others are fitted out to build bridges, highways, and computers; design airplanes and road systems; drive trucks and taxicabs; seek cures for breast cancer and hypertension. (p. 13)

Implications for Collaboration

Participants who attend the training emerge with a shared vision and common language based on the neurodevelopmental constructs, a set of nine guiding principles, and a number of practical and useful strategies that can be used with all students. These strategies are valuable tools that can be easily and unobtrusively used in an inclusive class. Being able to discuss learners in terms of their strengths and neurodevelopmental constructs provides faculty with common vocabulary so that colleagues do not feel marginalized by their lack of knowledge regarding jargon or specific expertise. No longer would general education faculty feel compelled to refer a student for special education services due to a “visual-motor integration deficit” simply because the teacher did not know what that means. Being able to describe a student’s learning process empowers faculty to demystify that student so that the teacher can then work collaboratively with the student to identify tactics for helping the student to improve his or her own success in the classroom, without first resorting to stigmatizing pullout services. General and special education faculty can also engage in collaborative dialogue regarding all students, both with and without disabilities, increasing the consultative aspects of the special educator’s role and allowing him or her to assist more students.
through this type of indirect collaborative support. General education faculty can be more open to this type of consultative interaction because they will be informed participants in the shared conversation, rather than recipients of the special education teacher’s advice and dictates.

**Schools Attuned as a Collaborative Intervention Model**

**Levels of Intervention**

We propose that Schools Attuned be viewed as a three-tier model with teachers responding at various levels of intervention based on individual students’ needs. This is similar to the levels of intervention in the schoolwide discipline model originally proposed by Walker and colleagues (Sprague & Walker, 1996; Walker et al., 1996), who have demonstrated efficacy in decreasing rates of office referrals and suspensions; most important, research clearly demonstrates that positive school climates result from schoolwide efforts (Rosen & Jackman, 2000). The schoolwide discipline model also provides for a shared vision, a common language, and a set of guiding principles that unite all stakeholders (i.e., general and special education teachers, school psychologists, counselors, administrative leadership, support staff, families).

Walker and colleagues (1996) described a three-tier level of intervention for improving the general climate of the school as well as addressing students with more intense behavior challenges. The first tier of primary intervention provides schoolwide expectations and general guidance to all students so a positive school climate can be reached. The primary intervention is also a first line of defense against inappropriate behavior and is a proactive approach to encouraging appropriate behavior. According to a large body of research (e.g., Horner, Sugai, & Horner, 2000; Lewis & Sugai, 1999; Sugai, Sprague, Horner, & Walker, 2000; Todd, Horner, Sugai, & Colvin, 1999), these primary guidelines and rules encourage a majority of students to adhere to the set behavioral criteria. A second tier of support is provided in the guise of additional, more stringent support for those individuals who were not able to follow the most basic rules. This secondary level of support is able to work for students who need more intensive intervention than the primary tier. For a small number of students who have more critical behavioral needs, a tertiary tier offers highly specialized and tailored interventions. This occasionally takes place in a special education classroom or other specially designed environment.

Because Schools Attuned interventions can be aligned with levels of intervention (all students, a few students, and the individual student), we propose it be used in a fashion similar to the Walker et al. (1996) levels of behavior intervention (see Figure 1). If it is implemented in a schoolwide systematic manner, general and special education faculty can adopt the shared principles, language, vision, and basic strategies in the first tier of intervention. By focusing on instruction that addresses how students learn (i.e., the neurodevelopmental constructs), general educators will be able to adjust their lessons so the unique minds of their students have the opportunity for greater academic success. For the students, this can result in an increase of self-esteem, prosocial behaviors, and learning. We hypothesize that this collaboration will address the needs of the majority of students, both with and without disabilities. If a majority of students were supported through this shared model, fewer students would need the additional time and resources required by the secondary and tertiary levels.

For those students who are still experiencing difficulties with learning tasks despite the primary level of intervention, the secondary tier of support would be implemented. This tier consists of the general education teacher meeting with a team of individuals (e.g., Schools Attuned specialist; special education teacher; student, when appropriate; family members; school psychologist) to discuss the concerns of the teachers. This meeting would be a prime opportunity for general education teachers to work collaboratively and proactively with a colleague trained as a Schools Attuned specialist. The specialist can share additional information on the application of the neurodevelopmental constructs and interventions. For example, teachers and parents could complete the requisite interview protocols and then engage in developing a specialized plan that focuses on the student’s strengths and academic or behavioral challenges. Together, various team members could identify strategies that could be used in the general education classroom to bolster the student in needed areas. Special educators could provide additional assistance in the form of consultation, strategies, resources, materials, or presence through co-teaching, in-class support, or paraprofessional assistance. At this level, the student would not go through the whole attuning process. Educators might collaborate with parents to discuss the neurodevelopmental constructs and to identify some areas of strength and need without actually fully attuning the student. The main point is for the team to share its common vision, terminology, principles, and interventions. A team approach is highlighted, and the student continues to be served in the general education setting.

For those students whose needs are not being met through the primary and secondary levels of support, the tertiary tier is necessary. This tier consists of a comprehensive Schools Attuned assessment, which can be conducted by one or more of the trained team members. The results would then be shared with the rest of the team. Based on the results of the attuning process, the team adjusts the current plan of intervention (developed at the secondary support meeting). Because attuning a student
can be time-intensive, not every student with mild learning or behavioral concerns will make it to this tertiary tier. In addition, the collaboration of educators and stakeholders would be greatly beneficial in ensuring that students' needs are met once the attuning process has been completed.

Once a student has been through the primary, secondary, and tertiary levels of the schoolwide Schools Attuned process with little to no success, we recommend moving to a formal referral to the student study team (or prereferral team) so additional strategies can be suggested in yet another collaborative venue. That team could also decide if additional assessments are necessary to determine if special education services are warranted. If so, the student would participate in additional psychoeducational assessments and, if justified, would be referred for special education services. Because of the collaborative aspects of the secondary and tertiary levels of support, it can be assumed that special education faculty would be more aware of these students' specific needs and, thus, more able to work with them in specific areas. In these few cases, a continuum of services offered in a variety of placements—to include some smaller class settings—may be appropriate for a minor number of students. With the design of this collaborative model, however, it is presumed that this type of segregated setting would be limited and reserved for few in number. It is also important to note that this particular intervention strategy is not in

line with Levine’s philosophy, which does not endorse labeling students or identifying disabilities.

However, we suggest that although the three tiers are preferable and optimal, there are a significant number of educators and family members who would argue that eliminating special education services altogether might undo much of the work that has been done since IDEA was first enacted in 1975 (then, Education for All Handicapped Children Act) to meet the specific needs of individuals with disabilities. This would be a radical step in the wrong direction. Thus, although we are advocating a more active collaboration and integration of the two systems (general and special education), we are not promoting an absolute elimination of the special education system in favor of a complete and total merger of the two systems.

Benefits of a Collaborative Intervention Model

Clearly, using a three-tier model based on the Schools Attuned training and principles enables faculty to engage in the type of collaborative discourse often missing in schools. General and special educators are valued for their particular areas of expertise, but having these individuals collaborate without providing a framework from which to begin is optimistic at best. The framework is a way by which faculty can then use their specific areas of expertise and experience to start the collaborative process. Schools Attuned in no way usurps the special educator/specialist’s role; the level of information provided regarding neurodevelopmental constructs is preliminary and can only be enhanced by the additional knowledge and skills that the special educator/specialist brings to the interaction. In fact, in the long run, specialists may find themselves acting in the role of facilitator, mentor, trainer, professional developer, or even taking university coursework on applied neuroscience to increase their levels of knowledge and experience to start the collaborative process. Schools Attuned in no way usurps the special educator/specialist’s role; the level of information provided regarding neurodevelopmental constructs is preliminary and can only be enhanced by the additional knowledge and skills that the special educator/specialist brings to the interaction.

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Currently, Schools Attuned is a model that lacks the weight of sufficient scientific and empirical data, an issue that is of concern to even the most open-minded of educators. However, three major studies of experimental and multiple-subject designs are currently under way. These data will most probably raise more questions than answers as we believe that true human disposition and attitudes are very difficult to quantify. A paradigm shift in thinking and teacher attitude takes persistence, steady progress, and a culture or system change in schools.

As trained Schools Attuned participants and teacher educators, we are personally convinced that the true value in this model lies not in the interventions, which look very similar to techniques frequently taught in special education coursework, but in the message that we must value our students’ strengths, encourage their affinities, and be tolerant of the diversity and differences of each student’s mind. We are not calling for a radicalization of special and general education by advocating that Schools Attuned replace our current way of educating students. A reasonable individual could not argue against a unifying philosophy that gives educators the means to:

• add valuable information to their already existing repertoire of tools,
• increase their understanding of their students’ learning,
• enhance their appreciation of their students’ unique talents, and
• use interventions that respect both the students’ strengths and challenges.

We believe educators would agree that if this is truly the end result, we may not need voluminous amounts of data produced by experimental research designs to validate our beliefs prior to implementing the process.

The ultimate question is whether or not we have time to engage in debate and wait until the results are in before we act. Our schools currently act as collision courses for many students who don’t seem to find their place in these high-stakes testing environments and who suffer poor self-concept on a daily basis. Dr. Levine’s philosophy...
and the Schools Attuned model encourage all stakeholders to participate in the process of supporting students with their academic, social, and emotional needs. Levine is not proposing expensive and highly prescriptive reading or math curricula nor is he advocating the complete overhaul of schools. The three-tier approach using Levine’s model as its base further enhances a school system’s effort to deliver efficient and effective instruction for all students.

The merger of special and general education as proposed by Stainback and Stainback (1984) was once a radical notion that did not provide any real options or details. Those authors should be commended for writing an article that warned about the dangers of the growth of special education as its own empire. Dr. Levine’s model proposes that educators serve all students before they reach special education, and he provides a real opportunity for general and special education to unite in a way that has never been possible before. Current educational environments are ripe for true collaboration and long-lasting change based on a common language, a shared vision, a set of guiding principles, and best practice interventions. K–12 students and their teachers can be so much more successful with this collaborative philosophy, the clear levels of intervention, and the increased capacity of understanding and tolerance of students’ minds. Our proposal does not promote eliminating special education but rather enhancing general education for a majority of students and making placement in special education the last resort for a few. Using Schools Attuned to make this happen is just good common sense.

**About the Authors**

**Ivor Weiner**, PhD, is an assistant professor in special education at California State University, Northridge (CSUN) and a fellow at the Center on Teaching and Learning. He is trained in Schools Attuned (SA) and has a special interest in parent training and SA. His primary area of research and publication is in social skills for students with emotional and behavioral disorders (EBD). He has implemented four model classrooms for students with EBD in the Los Angeles Unified School District, Los Angeles, California. **Wendy W. Murawski**, PhD, is an assistant professor in special education at CSUN and a trained SA fellow at the Center on Teaching and Learning. Her primary areas of research and publication are in co-teaching, collaboration and service delivery at the secondary level, Schools Attuned, and professional development. She is a national presenter with the Bureau of Education and Research and was the recipient of the 2004 Distinguished Teacher Educator Award in California. Address: Ivor Weiner, Assistant Professor, Department of Special Education, Michael D. Eisner College of Education, California State University, Northridge, 18111 Nordhoff Street, Northridge, CA 91330-8265; e-mail: ivor.weiner@csun.edu

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