DEVELOPMENTAL DESIGNS A Description of the Approach and Implementation in Schools

Terrance Kwame-Ross , Linda Crawford, and Erin Klug
Developmental Designs

This article describes the theoretical and conceptual framework upon which the Developmental Designs (DD) approach is based and four fundamental human needs especially compelling for adolescents. These are used as the foreground to explain and contextualize the Developmental Designs' 10 classroom practices and professional development workshop/training model, including a description of the Developmental Designs workshop facilitators. Furthermore the study explores longitudinal registration data of teachers and schools participating in the Developmental Designs professional development training from 2005 to 2010. The study reports that 428 schools in and outside of the United States employ 1 or more teachers who have received Developmental Designs training; 414 of the 428 schools are described as residing within the United States and are spread across 29 different states. Statistical analysis was performed to test the question: What is the relationship between schools with 4 or more Developmental Designs 1- (DD1) or Developmental Designs 2- (DD2) trained teachers and those with 1-3 DD1- or DD2-trained teachers? Results indicate that a relationship exists between the number of DD-trained teachers in a school and that school's adequate yearly progress (AYP) status.

INTRODUCTION

The Developmental Designs approach is based on the understanding that the *context* for learning shapes its quality. The operating premise is that adolescent students will optimize their learning in schools in which (a) healthy peer and adult to student relationships make a strong, safe community, (b) student social competencies engender the responsible independence necessary for both social and academic success, and (c) instruction is designed to effectively engage adolescents in learning.

Conceptual Framework

The theoretical and conceptual framework of the Developmental Designs approach stands

• Terrance Kwame-Ross, Executive Director, Origins, 3805 Grand Avenue South, Minneapolis, MN, 55409. E-mail: rossx036@umn.edu

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on the work of a variety of theorists. The approach draws from theories of personality that focus on a needs-based framework for human motivation. Maslow (1954) first noted that unlike the Freudian or Skinnerian theorists, human behavior is driven by attempts to satisfy a hierarchy of human needs ranging from basic physiological needs to the highest need of self-actualization. Glasser's (1998) choice theory describes the effect of human needs for belonging, power, freedom, and fun on a person's choices. His theory maintains that individuals are always choosing their behaviors at any given moment, and they make choices in order to meet one of these primary needs (Glasser, 1998). The social-discipline model of Dreikurs, Peepers, and Grunwald (1998) emphasizes that behavior is goal-directed, often in association with the need to feel significant and experience a sense of belonging to one's social group. A student misbehaves in pursuit of a "mistaken goal" to satisfy these needs. Changing that mistaken goal or diverting it to useful means corrects the behavior (Dreikurs et al., 1998). Erik Erikson's (1968) stages of psychosocial development formulate the process of development as a series of conflicts that occur from birth to maturity as human beings attempt to meet their needs for trusting relationships, autonomy, and competence. The conflicts and the degree to which the conflicts are resolved and the needs satisfied comprises a gradual process of identity formation, which becomes an issue during adolescence when young people may rush to resolve the identity issue prematurely by adopting a fixed identity instead of keeping open to variety while they remain faithful to their convictions (Erikson, 1961).

The Developmental Designs approach is also founded on social learning theory, which attributes learning growth not to an epigenetic unfolding of inherent capabilities or an engineered response to stimulus as described by behaviorists, but to social interactions between students and their social milieu. Vygotsky's (1934/1986) social constructivism describes the effect of language, guided participation, and cognitive apprenticeship on the incremental growth of the learner. According to Vygotsky, a process of cultural mediation occurs within a significant social group wherein specific cultural norms and knowledge are acquired through observation and interaction (1934/1986). Barbara Rogoff's (1990) work on apprenticeships builds on Vygotsky's ideas and connects Piaget's (1923/1959) ideas of cognitive growth to social interaction between individuals of greater and lesser mastery. The apprentice learns from the one who has mastery, because the master is able to guide the novice with adequate support and stretching of his/her understanding (Rogoff, 1990). Rogoff's ideas incorporate both cognitive and social learning situations that support Dreikurs et al.s' social discipline model (Dreikurs et al., 1998), which also views the student as a social being who learns about how to behave by working collaboratively with peers in a democratic setting. His theory of discipline veers away from punishment and encourages teachers to help students develop positive behavior through modeling and collaborative attempts to problem solve. This positive student-teacher relationship is aligned with Alfred Bandura's (1997) social learning theory that describes how humans learn and alter behavior by observing and imitating others.

John Dewey's theories of education and how humans conduct their understanding of the world through experience also support the Developmental Designs approach. Dewey's (1938/1963) ideas that students need to interact with the curriculum and be given opportunities to take an active part in their learning is a focus of his influence. Equally important are his theories of schooling as an opportunity for students to develop social responsibility in action (Dewey, 1909, 1916). His work states that in order for students to learn how to act in a democratic society, schooling should be structured to allow young people the experience of developing rules and living in accordance to them.

The Developmental Designs approach also applies concepts described by brain-based learning theorists who support teaching and learning practices that are compatible with how researchers understand the human brain's functions. The Developmental Designs approach utilizes structures that develop reflective thinking and active learning in light of research that identifies the immaturity of the prefrontal cortex of the adolescent brain, the dominance of the midbrain, and the importance of physical movement in stimulating memory, attention and spatial perception (Jensen, 2005).

Adolescent Student Needs

The Developmental Designs approach is built around four fundamental human needs especially compelling for adolescents: the need for autonomy (freedom) (Erikson, 1968; Rogers, 1963; Ryan & Deci, 2000; Sheldon, Ryan, & Reis, 1996); the need for competence (self-worth) (Erickson, 1968; Atkinson, 1964; Bandura, 1997; Ryan & Deci, 2000; White, 1959); the need for trusting relationships with other adolescents and adults (Baumeister & Leary, 1995; Erickson, 1968; Reis & Patrick, 1996; Ryan & Deci, 2000; Wentzel, Barry, & Caldwell, 2004); and the need for fun (Epstein, 1990; Fall, Holden, & Marquis, 2004; Glasser, 1998; Goleman, 2006). When these needs are satisfied in the course of adolescent learning, student motivation is likely to increase (Dreikurs et al., 1998; Glasser, 1998). When appropriate goals include the satisfaction of these needs, students are less likely to misbehave (Dreikurs et al., 1998). When students perceive that they are meeting their needs for trusting relationships, and for a sense of competence and autonomy, they are less likely to limit themselves with a perception of fixed identity and more likely to keep open to change and growth (Erikson, 1961).

According to Sheldon, Elliot, Kassar, and Kim (2001), the first three of these, that is, *autonomy, competence, and relationship or relatedness,* occur consistently among the top four human needs described by their research participants as particularly salient. We do not include self-esteem, which also ranks with the top four needs in this study, because issues of self-esteem, beyond the element of competence, are outside the purview of the school setting in our opinion. The fourth need identified in the Developmental Designs approach, *fun,* is closely associated with pleasure, which ranked fifth in the Sheldon et. al study (2001).

Because the underpinnings of the Developmental Designs approach are the developmental needs of adolescent students, their powerful need for the satisfaction of a desire for autonomy, competence, relationship, and fun serve as reference points for all Developmental Designs practices. The conceptual framework of Developmental Designs supports the importance of those four needs. Student competency is greatly enhanced when learning is scaffolded (Vygotsky, 1934/1986) and socially interactive (Dreikurs et al., 1998; Rogoff, 1990). Fun in the form of physical stimulation and play fends off adolescents' boredom and feed the craving to be stimulated by and involved in what they are doing (Dreikurs et al., 1998; Epstein, 1990; Glasser, 1998; Jensen, 2005). According to theories of self-efficacy (Bandura, 1997), choice theory (Glasser, 1998), and self-determination (Ryan & Deci, 2000), educators cannot teach young people the skills, concepts, and facts they need to become lifetime workers and learners unless they do so largely in a way that feeds the youthful need to relate to others. They are unlikely to be self-motivated, unless their teachers satisfy their need to feel competent and independent (autonomous) (Bandura, 1997; Ryan & Deci, 2000). Theorists Bandura (1997) and Ryan and Deci (2000) have studied motivation and support the idea that academic learning that allows students the autonomy to construct their own understanding of the world is much more likely to result in adolescent endorsement of the learning process.

The Developmental Designs approach provides practical ways for educators to meet adolescents' most compelling needs. Deci's

(1996) idea of intrinsic motivation supports the Developmental Designs goal of adolescents meeting their needs in positive, self-motivation-supporting environments rather than trying to force a developmentally inappropriate mindset and behavior through the devices of rewards and punishments. Developmental Designs practices are constructed to utilize youthful energies and desires to guide students toward the direction educators, their families, and ultimately the students themselves wish to go—toward school and life success. Each practice is founded upon a strong body of research that establishes the efficacy of designing school around the needs of the schooled.

Developmental Designs Practices

Developmental Designs workshops introduce educators to ten practices, provide the rationale and research behind them, and offer an experience of the practices, as well as the opportunity to apply and reflect on those experiences with colleagues. Developmental Designs practices provide tools that help educators move from theory to action. They provide a practical means for empowering students to maximize their social and academic growth. The Developmental Designs practices include: community-building advisory structures, goals and declarations, social contract, modeling and practicing, pathways to self-control, empowering teacher language, power of play, reflective loop, collaborative problem-solving, and engaged learning practices.

Community-Building Advisory Structures (Circle of Power and Respect and Activity Plus)

The Developmental Designs advisory structures foster healthy relationships among peers and between students and teachers, teach social skills, and build an inclusive community that supports students' connection to school and academic success. Young people need a transition from home, the bus, the neighborhood to school—a place where the cultural norms may differ dramatically from the rest of life for many students. School must seem relevant to adolescents before they will make an effort to do what schools demand (Dewey, 1909). Feelings of connection to school increase the likelihood of success in school (Makkonen, 2004; McNeely, Nonnemaker, & Blum, 2002; Osterman, 2000). Blum, McNeely, and Rinehart (2002) establish that the presence of school connectedness results in students who engage less in violent or deviant behavior. Conversely, Udry (2003) establishes that the absence of connection to school is associated with antisocial and self-destructive behaviors. A homeroom or advisory at the start of the day, when properly structured to meet adolescent needs, can promote social development, assist students in their academic programs, facilitate positive involvement among teachers, administrators, and students, provide adult advocacy, and provide a positive climate in the school community (Clark & Clark, 1994). When students experience school as a supportive community, they are more likely to develop prosocial attitudes and behaviors (Schaps, Battistich, & Solomon, 2004). An environment that is supportive to social and emotional well-being is conducive to success in school (Blum et al., 2002; Hawkins, 1997). This opportunity for social and emotional growth in turn generates growth in academic performance (Wang, Haertel, & Walberg, 1997; Wentzel, 1993). Conversely, the lack of social and emotional competencies often cooccurs with poor academic performance (Hawkins, Farrington, & Catalano, 1998; MacIver, 1990).

Goals and Declarations

Several researchers have concluded that unless adolescents feel a connection to what we ask of them in school, unless they construct their own understandings and establish goals that are relevant to them personally (Dreikurs et al., 1998), they will lack the authentic investment in school that generates success (Deci, 1996; Dewey, 1909; Jensen, 2005). The Developmental Designs approach provides a structure for students to set goals for them-

selves and declare their personal intentions for the school year.

Social Contract

Dreikurs et al. (1998) establish that adolescents are much more willing to be guided by rules when they have had a share in creating those rules in the first place. The social contract provides a fundamental understanding that to gain the benefits of living and working in a supportive community, one has to be willing to make and keep agreements. According to educational and adolescent development theorists, students prepare for citizenship in a democracy by participating in setting limits, preserving the rights of all, and addressing challenges that they themselves help define (Berman, 1997; Dewey, 1909; Glasser, 1969).

Modeling and Practicing

The work of social cognitive theorists Vygotsky (1934/1986) and Rogoff (1990) helps us to understand that in order for students to feel able, they need careful, experiential introduction to everything they are expected to do in school. Only when we provide them repeated practice in similar contexts will we have created the conditions in which adolescents are likely to competently develop habits of self-control (Jensen, 2005; Neil, Wood, & Quinn, 2006; Wolfe, 2001). If we assume little or nothing about what they "should" be able to do, and instead actively teach them the skills of living in community, they are predictably more likely to develop habits of success in school and in life (Bandura, 1997; Payton et al., 2008).

Pathways to Self-Control

When the adolescent desire for autonomy is supported by a capacity for self-control, adolescents are able to use freedom responsibly (Berman, 1997; Deci, 1996; Dewey, 1909). Dembo and Eaton (2000) establish that the skills of self-regulation can lead to increased self-efficacy and improved academic performance at the middle level. The "pathways to self-control" provide structures to nudge students back when they stray from the rules all have agreed to follow, and they also provide support for gaining student endorsement of the respectful mechanisms used for correction, thereby strengthening their experience of autonomy. Deci (1996) and Dreikurs et al. (1998) show us that students will respond positively to those mechanisms without rewards and without feeling undermined.

Empowering Teacher Language

Teachers who monitor their language can support student growth (Vygotsky, 1934/1986) by providing clear directions; using language to promote student endorsement and self-determination (Deci, 1996; Dreikurs et al., 1998); reinforcing success without counterproductive praising and rewarding (Dreikurs et al., 1998; Marzano, 2003); reminding when necessary; redirecting off-course behavior respectfully without shaming (Dreikurs et al., 1998), and inviting student reflection to improve subsequent performance (Dewey, 1938/1963; Piaget, 1923/1959).

Power of Play

The adolescent need for action and interaction makes interludes of play a leverage for learning (Glasser, 1998). Play is strongly associated with pleasure, and according to Fall et al. (2004) play frequently satisfies the need for bonding among people. When play is mixed with learning, physical and mental skills can develop more easily in a state of mind that is more relaxed and unguarded, ready to take risks and open to ideas (Damasio, 2002; Goleman, 2006). According to the Mobily, Malcolm, and Bedford (1990) study of the semantics of work and play, play is associated with all that is not work, not hard, and not boring. Brain researchers Epstein (1990) and Panksepp (1998) also remind us that play gen-

erally feeds the need for pleasurable stimulation.

Reflective Loop

The work of Piaget (1923/1959) and Dewey (1938/1963) teach us that establishing a learning cycle—the habit of thinking about work, actions, language after they happen so that you can improve future performance—supports cognitive growth. Use of this learning cycle makes learning meaningful (Dreikurs et al., 1998; Jensen, 2005) and develops the capacity to self-assess (Marlowe & Page, 1998).

Collaborative Problem-Solving

Social cognitive theorists Vygotsky (1934/1986), Rogoff (1990), and Dreikurs et al. (1998) establish that thinking collaboratively develops the capacity to constructively solve problems as students are able to exchange ideas with others and hear multiple points of view. In addition, the adolescent need for self-direction makes problem-solving in collaboration rather than authoritarian punishment much more likely to spur social development and young people's endorsement of restorative solutions (Berman, 1997; Deci, 1996).

(10) Engaged Learning Practices

Student motivation is an important influence on engagement in learning. Deci and Ryan (1985) suggest that intrinsically motivated students engage in learning for its own sake, freely and without external rewards. The goal of Developmental Designs' learning practices to motivate students to learn by using student-centered structures that various researchers have associated with (a) relevance to the learner (Dewey, 1938/1963), (b) task-focused goals (Ames, 1990, 1992; Dweck & Leggett, 1988; Nicholls, 1986), (c) self-determination (Bandura, 1997; Boyer & Bishop, 2004; Deci, 1996; Dreikurs et al, 1998), (d) social interaction (Rogoff, 1990; Vygotsky, 1986), and (e) active, exploratory formats for learning (Bruner, 1961; Dewey, 1938/1963; Piaget, 1923/59).

Developmental Designs Workshops

In Developmental Designs workshops, great care is taken not only to demonstrate the ten practices to teachers, but also to integrate the use of them in the workshop itself. For example, each workshop day begins with an advisory meeting, either the circle of power and respect or activity Plus, to build community among the educators participating. All participants set personal goals to help ensure that the time spent in the workshop will give them the quality experiences they seek, and together participants create guidelines within which the workshop will operate all week to help ensure that participants meet their goals.

All the routines of the workshop are modeled and practiced, and if there are problems, they are handled collaboratively. A high level of participation is elicited through interactivity and a variety of ways of managing conversations. All the practices of Developmental Designs are taught and modeled by using "engaged learning" approaches. Participants work with each other in small groups, present ideas and project work to each other, reflect alone and together about the ideas and the work, and have many opportunities throughout each day to move about, create things, exercise, and experience the release and power of play.

Each time Developmental Designs facilitators release participants for a break, they use the reflective loop to plan for success and reflect to see how the plan worked. All the language used by the facilitator of the workshop is carefully designed to demonstrate in action the five different types of language we are recommending: concise and precise directing language, reinforcing language that avoids broad strokes of praise, reminding language at the beginning of each routine or assignment, reflecting language after each exercise, and even redirecting language if individual educa-

tors break the group-made guidelines. The result of facilitators implementing the Developmental Designs practices as they teach the workshop is that educators experience the practices first-hand, and they come to appreciate directly the degree to which learning in a friendly community that is both rigorous and playful enhances everyone's learning.

Workshop Facilitators

Developmental Designs workshops are led by facilitators who not only have teaching experience at the middle grades level, but also have experience using the Developmental Designs approach with students. Facilitators provide knowledge on both the content and research behind the approach and are able to give participants practical, expert guidance on using the practices in the classroom. In order to become certified to lead a workshop, facilitators must demonstrate to an experienced Developmental Designs consultant their proficiency in using the Developmental Designs approach in the classroom, be observed and deemed proficient by the Director of Program Development, copresent the workshop with an experienced, certified Developmental Designs facilitator under the observation and coaching of the director of program development, and, if deemed proficient in facilitation, certified as a facilitator. After facilitators become certified, they are required to participate in annual professional development workshops to further develop their facilitation skills and become familiar with new developments in the approach. Facilitators are also required to lead at least one workshop every 3 years out of 4 so that their skills remain strong through recent experience.

Types of Developmental Designs Workshops

The workshops included in the scope of this descriptive study are Developmental Designs 1 (DD1) and Developmental Designs 2 (DD2). DD1 introduces educators to the overall premises of the approach and begins to explore DD practices using the methods described above. Participants learn about ways in which they can help adolescents form healthy relationships, build community in their classrooms, and develop their social competencies. They focus on ways to respond to disruptive behavior so that students incrementally develop self-control. DD1 is a prerequisite for DD2, which is a continuation of the training with emphasis on designing student-centered instruction that will effectively engage adolescents in learning. DD2 still continues to reinforce and refine strategies for community building and the development of social skills as previously introduced in DD1. It explores more deeply the process of behavior problem solving with students.

Follow-Up Coaching

In addition to DD workshops, schools may choose to participate in follow-up coaching with a Developmental Designs consultant to further facilitate the implementation of DD practices in the classroom. A consultant works on-site with a school and provides services including demonstrations of practices, teacher observations, assistance with planning lessons using practices, and leading grade level, team, and staff development meetings. Technology-assisted coaching that utilizes audio, video, email, and Skype conferencing is also available to support teachers who have been trained in DD1 or DD2 to more effectively implement the practices in their classrooms.

Research Questions

Inquiry regarding the extent to which DD1 and DD2 has impacted teaching and learning across the United States is based upon the following five questions:

- How many schools across the United States and internationally house teachers who have received either the DD1 or DD2 pro-

fessional development training with follow-up coaching?
- In what states are these schools located?
- How many of these schools fall into one of the following categories: public, private, parochial, charter, magnet, special (alternative, maritime, tutoring)?
- What are the most common grade-span configurations of these schools?
- What is the relationship between schools with four or more DD1- or DD2-trained teachers and those with one to three DD1- or DD2-trained teachers?

METHOD

Researchers used participant registrations to generate a list of schools where teachers trained in DD1 and DD2 work. The list focused on schools that serve Grades 5-9; secondary schools that served only Grades 9-12 or elementary programs that exclusively served Grades K-4 were excluded. Participants who are either district personnel, teachers in afterschool or tutoring programs, or currently not assigned to a school site were grouped together in a separate category and titled "other." This category includes staff members who work with students but are not assigned or affiliated with a specific school site. Using this list of schools, researchers completed a web-based data-collection process to research the descriptive data for each school. Data were collected during the 2008-2009 school year.

Researchers obtained data from national, state, and school Web sites from September through October 2010. The national site (http://nces.ed.gov/) was used as the default for the following variables: total school enrollment, number of teachers, student/teacher ratio, enrollment by ethnicity, enrollment by gender, free and reduced lunch numbers, and economically disadvantaged numbers. State report cards were used primarily for the remaining variables: district name, school type, grade configuration, average daily attendance percentage, number of expulsions, number of suspensions, Title I eligibility, and adequate yearly progress (AYP) status.

Limitations of Data Collection: There were several limitations for the data collected from private and parochial schools. Most private and parochial schools do not provide data on their Web sites, and are not consistently reported on the U.S. Department of Education website. Also, ethnicity and enrollment data for private and parochial schools that were obtained at the national level are from the 2007-2008 school year and do not include data for prekindergarten students. For all schools in this study, both public and private, researchers were unable to find available data for schools that were newly opened or merged with another site after 2009. In addition, researchers found a wide degree of inconsistency as to what variables are reported at the school level. For example, researchers began collecting mobility data but were unable to find this variable reported consistently by a significant number of schools; therefore, the mobility field was removed from the scope of data collection.

RESULTS

The methods described above generated a database containing 428 schools employing one or more teachers who had received Developmental Designs training. Nine of these schools are located outside of the United States in Canada, Brazil, and the Philippines, and five schools are located in the U.S. territory of the Virgin Islands. The remaining 414 schools that reside within the United States are spread across 29 different states as illustrated by Figure 1.

Table 1 describes the numbers of schools across the United States and internationally that house teachers who have received either the DD1 and/or DD2 trainings with or without follow-up consulting. Five of the 29 U.S. states contain 25 or more schools that house teachers who have been trained in DD1. One of these states is Minnesota, which is home to 101

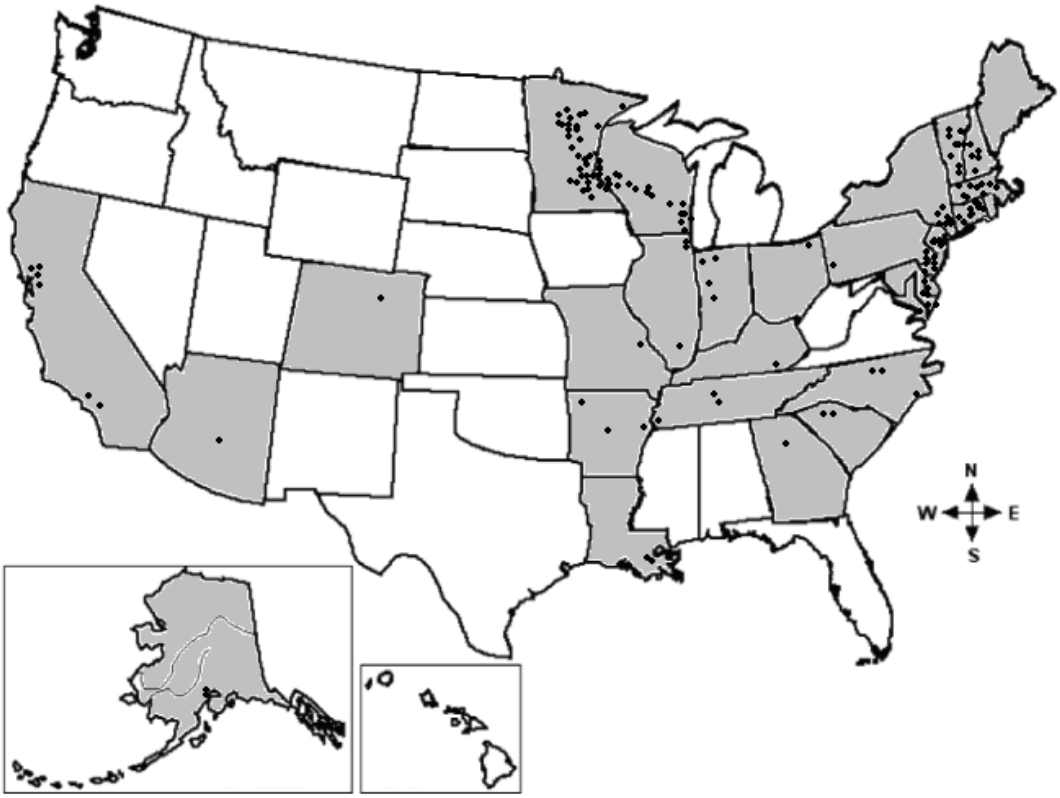


FIGURE 1
Locations of U.S. Schools With Developmental Designs Trainings With or Without Follow-Up Coaching.

schools with teachers trained in DD1. Other states with more than 25 schools where DD1-trained teachers are employed include Massachusetts (60 schools), Wisconsin (47 schools), Vermont (34 schools), and Kentucky (25 schools).

Over half of the 29 states are home to schools that have received further training beyond the initial DD1 workshop, including the completion of DD2 and follow-up coaching from a Developmental Designs consultant. Minnesota has 38 schools that employ DD2-trained teachers, 27 schools with coaching. Massachusetts houses 27 schools with DD2-trained teachers, 15 schools with coaching.

As illustrated in Figure 2, of the 419 U.S. schools, 65% (n = 271) are traditional public schools and an additional 14% are public charter schools (n = 61). Eight percent are parochial (n = 34), another 8% are private (n = 33), 3% are special (n = 11), and 2% are classified as public magnet schools (n = 9). The students in these schools are 51% male (n = 83,763 students) and 49% female (n = 79,708 students)

Since 2005 a total of 3,849 teachers have been trained in DD1 and 730 teachers in DD2. Table 2 shows the rate of teacher participation by school. Fifty-eight percent of the 426 schools (n = 247) employ 4 or more teachers who have received training in DD1. The additional 42% of schools employ one to three DD1-trained teachers. Of the 150 schools who employ teachers with DD2 training, 39% have four or more teachers who have received training (n = 58). An additional 120 staff have been trained in DD1 (and 15 in DD2) who work

TABLE 1
Locations and Numbers of Schools With Developmental Designs Training and Coaching

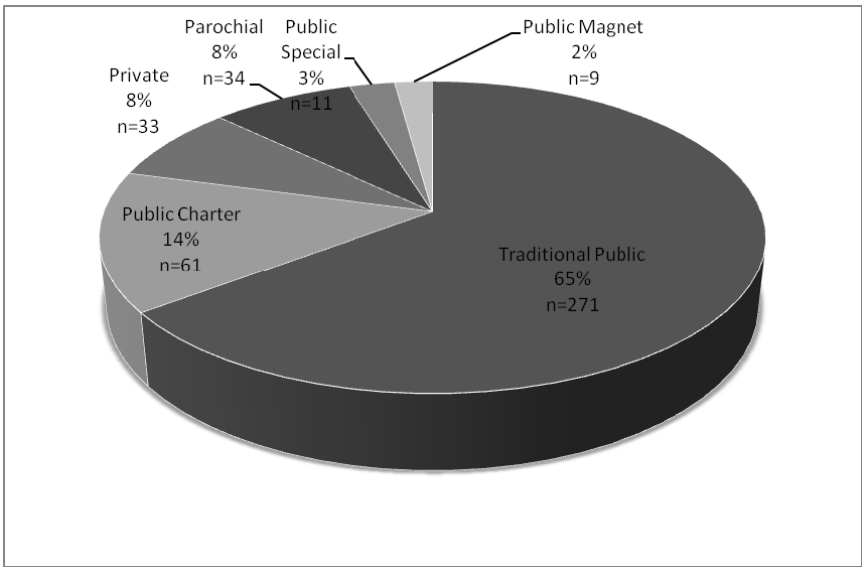
		Level of Training or Coaching		
Location		*DD1*	*DD2*	*Coaching*
Inside U.S.	AK	1		
	AR	2		
	AZ	1		
	CA	10	1	2
	CO	2		1
	CT	2		
	DC	12	1	1
	DE	1		
	GA	2	1	
	IL	9	5	2
	IN	10		
	KY	**25**	20	8
	LA	5	4	
	MA	**60**	27	15
	MD	4		1
	ME	3		1
	MN	**101**	38	27
	MO	1		
	NC	5	3	2
	NH	16	2	1
	NJ	18	5	3
	NY	14	2	2
	OH	3		
	PA	18	11	8
	RI	4	2	1
	SC	1	1	1
	TN	3		1
	VT	**34**	11	3
	WI	**47**	14	10
U.S. Territory	Virgin Islands	5		
Outside U.S.	Canada	7		
	Philippines	1		
	Brazil	1		
Total		428 schools	150 schools	90 schools

Note: States with 25 or greater schools that employ DD1-trained teachers are in boldface.

with students but are not assigned to a specific school. They may work in a district office or academic support program.

Figure 3 illustrates student enrollment at schools where teachers have completed DD1 and DD2 training. Most schools enroll between 151-350 students (n = 104) or 351-500 students (n = 129).

Grade configurations at these schools, as depicted in Figure 4, vary across prekindergarten through 12th grades. The most common configurations include Grades K-8 and Grades



Note: "Traditional Public" is the designation used in this study for a public school that does not operate as a charter, magnet, or special school. A special school includes schools designated as alternative programs, day treatment, or maritime schools.

FIGURE 2
Types of Schools Located in the United States and Territories
That Have Received Developmental Designs Training (n = 419 schools)

TABLE 2
Teacher Participation Rates in Developmental Designs Trainings by School

	Number of Schools With	
Type of Workshop	*1-3 Trained Teachers*	*4+ Trained Teachers*
DD1	179	247
DD2	92	58

Note: Participation rates are designated as schools with 1-3 trained teachers and schools with 4 or more trained teachers. Due to lack of data, two schools are not included,.Also, because each DD2-trained teacher must have completed DD1 as a prerequisite, the two levels of professional development should not be added together.

6-8. Thirty-seven percent (n = 152) of schools where teachers are trained span Grades K-8 (or PK-8), and 25% (n = 104) span Grades 6-8.

Nearly 40% of all students in these schools are minorities; 21% are African American (n = 38,366), 10% are Hispanic or Latino (n = 18,571), 6% are Asian or Pacific Islander (n = 10,052), 1% are American Indian (n = 2,785), and 1% are multiracial (n = 1,000).

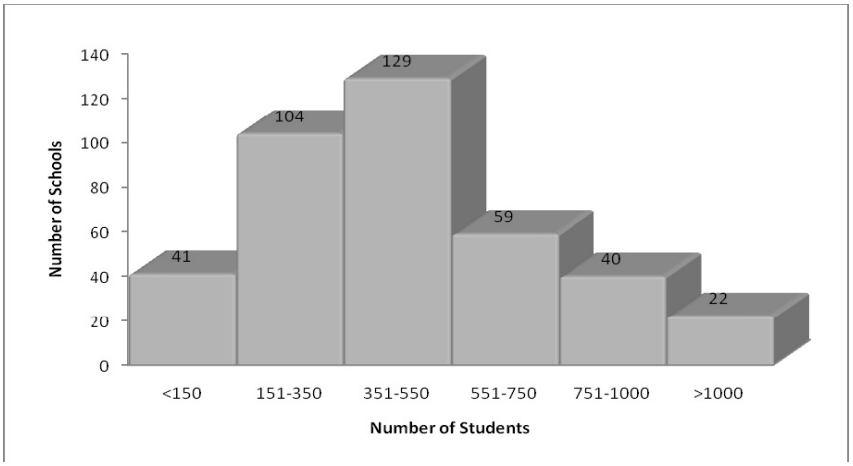


FIGURE 3
Student Enrollments in Schools Where Teachers
Have Completed Developmental Designs Training
(n = 395 Schools Reporting)

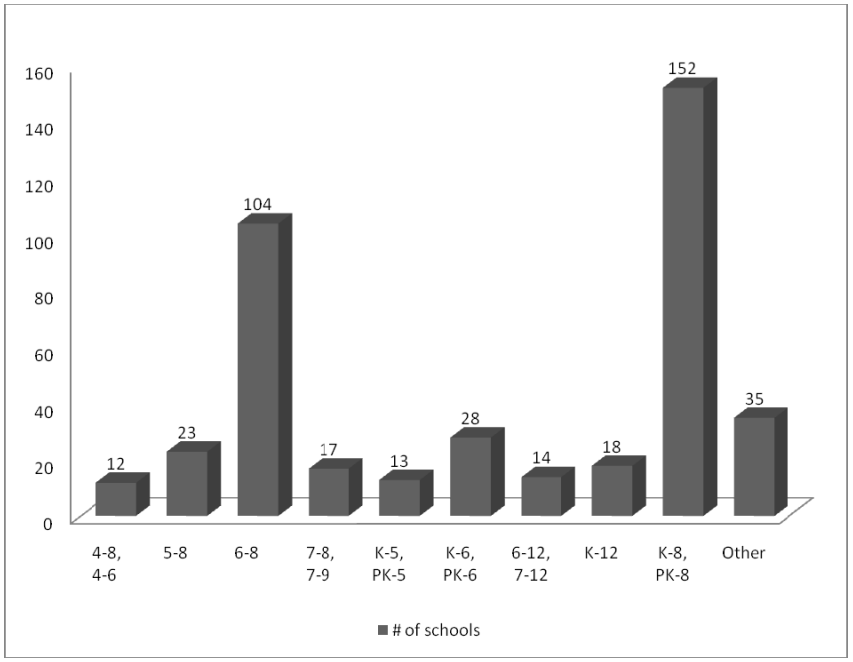


FIGURE 4
Grade Configuration of Schools With Developmental Designs-Trained Teachers
(n = 416 schools reporting)

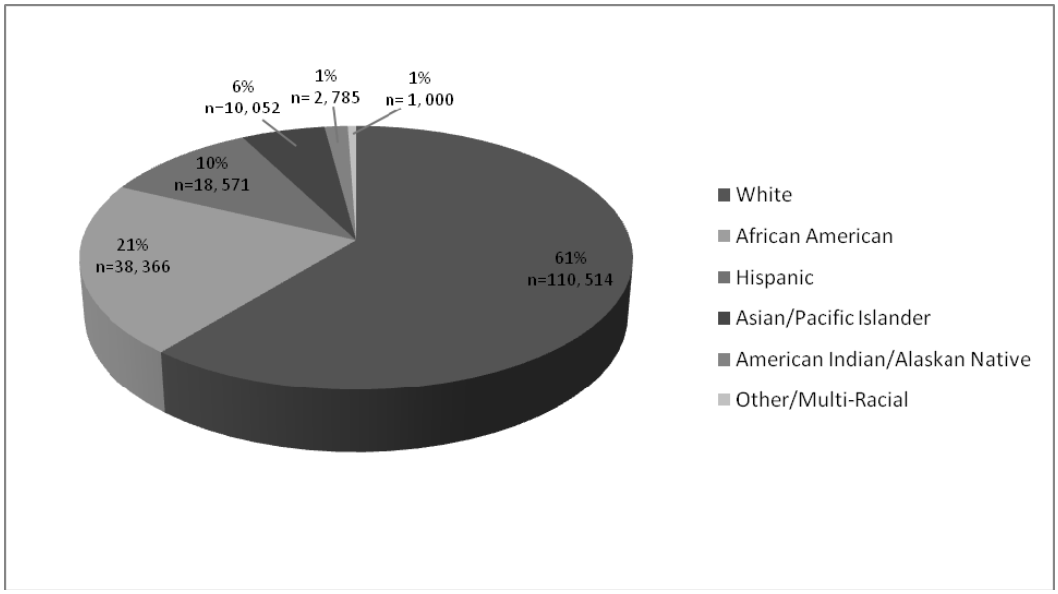


FIGURE 5
Percent Ethnicity Across All Developmental Designs Schools (n = 181,172 students across 420 schools)

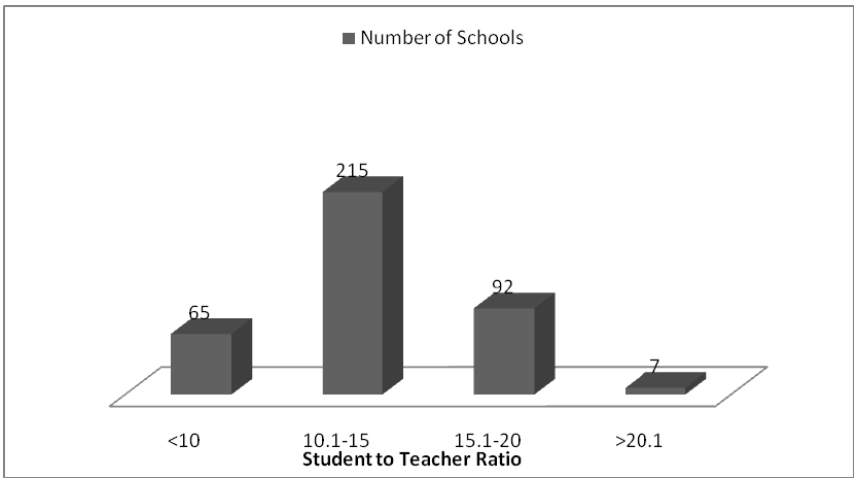


FIGURE 6
Student to Teacher Ratios in Developmental Designs Schools (n = 379 schools reporting)

As illustrated by Figure 6, over half (n = 215) of all schools which employ DD-trained teachers have student-to-teacher ratios of 10-15 students per teacher.

Of the 332 public schools with *Developmental Designs* training, 65% (n = 216) are classified as Title 1 schools. As illustrated by Figure 7, 38% of these Title 1 schools met

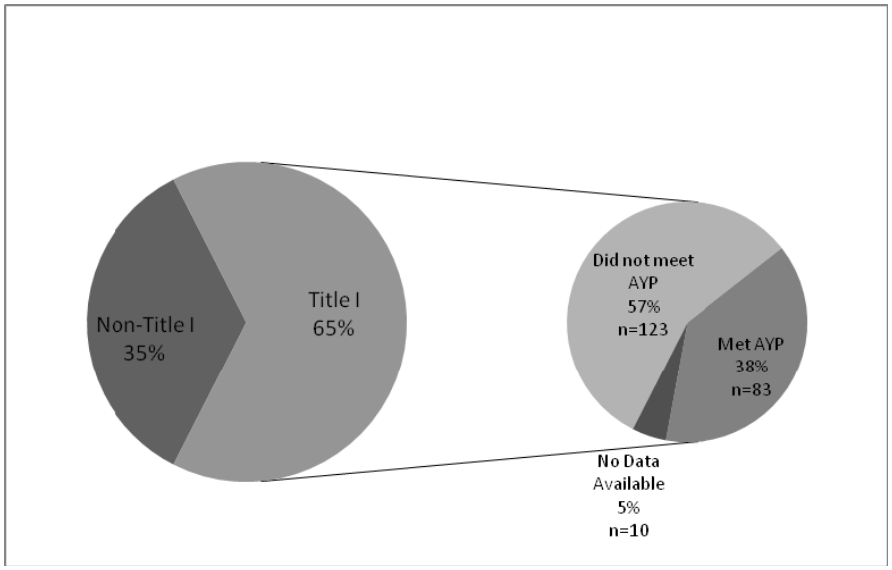


FIGURE 7
Percentage of Title I Schools (n = 216) by AYP Status for 2008-2009 School Year

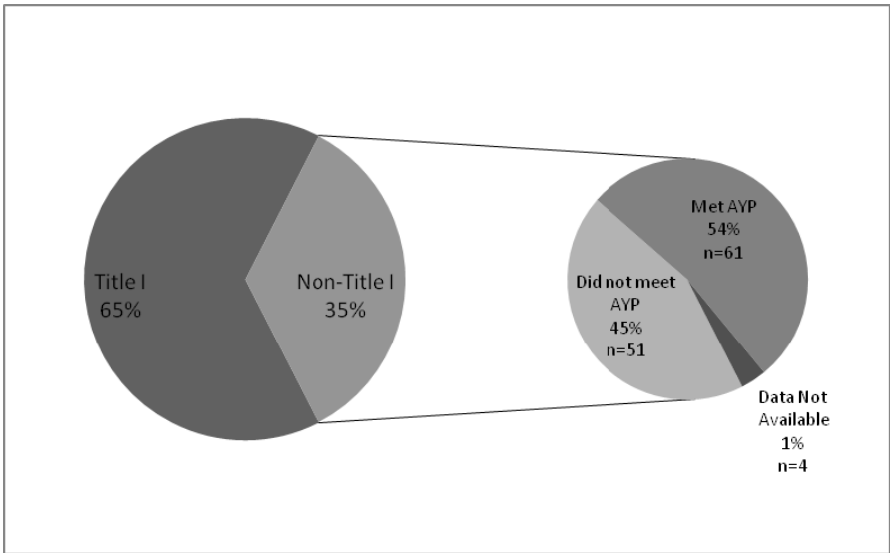


FIGURE 8
Percentage of Non-Title I Schools (n = 116) by AYP Status for 2008-2009 School Year

AYP in the 2008-2009 school year. Fifty-four percent of non-Title 1 schools met AYP goals for the 2008-2009 school year (Figure 8). Approximately 44% of the school children in these schools live in poverty as measured by free and reduced lunch program indicators and/or economically disadvantaged or low income classifications.

Data were entered into SPSS 17.0 for analysis. Independent samples *t* tests, dependent samples *t* tests, Cohen's *d* effect sizes, and one-way ANOVA techniques were applied to the data. An independent samples *t* test was used to determine whether or not Title I and non-Title I schools differ significantly in terms of meeting or not meeting AYP requirements. Results indicate that a significant difference exists, $t_{(331)} = 8.16$, ($p = .0145$), with more non-Title I schools meeting AYP. Next, one-way ANOVA techniques were used to examine whether or not these same schools differed on AYP outcomes when separated by the number of teachers trained in DD1 and DD2, that is, 1-3 versus 4+ per school, producing an $F(1, 331) = 5.21$ ($p = .046$), that indicates a relationship exists between the number of DD trained teachers in a school and that school's AYP status. Dependent samples *t*-test results indicate that non-Title I schools with 4+ DD-trained teachers have a greater number of schools meeting AYP requirements $t_{(115)} = 3.72$ ($p = .0491$), than schools with 1-3 DD-trained teachers, indicating marginal significance with a relatively low effect size of .09. However, Title I schools with 4+ DD-trained teachers were found to have a more significant difference $t_{(215)} = 4.71$ ($p = .0395$), with an effect size of .17. Further investigation is needed to examine the impact of other variables within schools that may, as well, contribute to differences in AYP. Future examination using data generated from this descriptive study may aid in the determination of the impact other factors such as school size, teacher to student ratios, ethnicity, and grade-span configurations, for example, might have on AYP when associated with the number of DD-trained teachers in a school.

SUMMARY

The most common "profile" for a school where DD1- and DD2-trained teachers work is a PK-8 or K-8 and 6-8 public school in Minnesota, Massachusetts, Wisconsin, Vermont, and Kentucky employing 4 or more teachers who have completed DD1 or DD2 professional development training with a 10-15:1 student to teacher ratio. These schools enroll between 151-500 students, 40% of whom are minority with approximately 44% qualifying for free and reduced lunch, resulting in a 65% chance that a school is designated as Title 1 with a 38% chance of passing AYP. While data to create the "profile" school aren't 100% inclusive due to a variety of unreported data across the 428 schools, they do present a picture of the "types" of schools that may be actively seeking support in the form of Developmental Designs. It can be reasonably assumed from this descriptive study that Developmental Designs 1 and 2 are among the professional development trainings and approaches of choice by schools with significant numbers of economically disadvantage students. Moreover, this study points to a potential strategy that schools employ incrementally over time or initially through team participation in DD workshops that seeks to improve teaching and learning with young adolescents by increasing the number of teachers trained in Developmental Designs. This strategy could transform the overall school climate and promote school-wide reform.

The statistical analysis performed on the data indicates that a relationship exists between the number of DD-trained teachers in a school and that school's AYP status. This finding is deserving of more study with more robust methods.

SIGNIFICANCE OF THE STUDY

Many schools seek to improve teaching and learning through professional development opportunities. Developmental Designs, a socioemotional integrated academic approach, is among the many approaches schools and teachers use to meet their goals of creating an optimal earning environment. However, the Developmental Designs approach hasn't been rigorously and systematically researched to

test its impact on student and school outcomes. Even so, schools continually choose the DD approach as one of their interventions to assist in creating a positive school environment to promote character development and academic achievement among adolescents.

Successful schoolwide reform efforts depend on all teachers being on the "same page." As the data indicated, schools, teachers, and ultimately students may benefit when a team of teachers from one school are trained in DD. Previous research in the area of school climate has identified schoolwide approaches to instruction and discipline as contributing to both positive school culture and student performance. This study provides an initial and important look into the Developmental Designs approach and the schools that employ it. This study sets the foundation for further and future research and evaluation inquiries to explore the reasons why schools are choosing DD as their school's intervention in order help them meet the demands of creating a positive learning environment for positive academic growth. Furthermore, this study provides a strong rationale for a rigorous evaluation of Developmental Designs in an experimental randomized research study. This type of investigation can help us understand the efficacy of DD and contribute to the growing literature surrounding successful evidence-based practices for teaching and learning.

The next step for future research would be to generate additional research questions that may be examined with the existing data and to identify additional information needed to develop questions that cannot be addressed with these data, resulting in a comprehensive, evidenced-based evaluation that will document the impact of the Developmental Designs approach.

REFERENCES

Ames, C. (1990, April). *The relationship of achievement goals to student motivation in classroom settings*. Paper presented at the annual meeting of the American Research Association, Boston, MA.

Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology, 84,* 261-271.

Atkinson, J. W. (1964). *Introduction to motivation*. New York, NY: Van Nostrad.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.

Baumeister, R., & Leary, M. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497-529.

Berman, S. (1997). *Children's social consciousness and the development of social responsibility.* Albany, NY: State University of New York Press.

Blum, R. W., McNeely, C. A., & Rinehart, P. M. (2002). *Improving the odds: The untapped power of schools to improve the health of teens.* Minneapolis, MN: University of Minnesota, Center for Adolescent Health and Development.

Boyer, S., & Bishop, P. (2004). Young adolescent voices: Students' perceptions of interdisciplinary teaming. In D. Hough (Ed.), *Research in middle level education* (pp.1-19). Westerville, OH: National Middle School Association.

Bruner, J. S. (1961). The acts of discovery. *Harvard Educational Review, 31*(1), 21-32.

Clark, S., & Clark, D. (1994). *Restructuring the middle level school: Implications for school leaders.* Albany, NY: State University of New York Press.

Damasio, A. (2002). Subcortical and cortical brain activity during the feeling of self-generated emotions. *Nature Neuroscience, 3,* 1049-1056.

Deci, E. L., & Ryan, R.M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum.

Deci, E. L. (with Flaste, R.) (1996). *Why we do what we do: Understanding self-motivation.* New York, NY: Penguin Books.

Dembo, M. H., & Eaton, M.J. (2000). Self-regulation of academic learning in middle-level schools. *The Elementary School Journal, 100*(5), 473-490.

Dewey, J. (1909). *Moral principles in education.* Boston, MA: Houghton Mifflin.

Dewey, J. (1916). *Democracy and education: An introduction to the philosophy of education*. Retrieved from http://www.twinsphere.org/library/philosophy/non-analytic/modern/American/Dewey,%20J.%20-%20Democracy%20and%20Education.pdf

Dewey, J. (1963). *Experience and education.* New York, NY: Collier MacMillan. (Original work published 1938)

Dreikurs, R., Peepers, F. C., & Grunwald, B. B. (1998). *Maintaining sanity in the classroom: Classroom management techniques.* New York, NY: Taylor & Francis.

Dweck, C.S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review, 95,* 256-273.

Epstein, S. (1990). Cognitive-experiential self-theory. In L. Pervin (Ed.), *Handbook of personality theory and research: Theory and research* (pp. 165-192). New York, NY: Guilford Publications

Epstein, S. (2003). Cognitive-experiential self-theory of personality. In T. Milton & M. J. Lerner (Eds.), *Comprehensive handbook of psychology: Vol. 5. Personality and social psychology* (pp. 159-184). Hoboken, NJ: Wiley & Sons.

Erikson, E. H. (Ed.) (1961). Youth: Fidelity and diversity. In *Youth: Change and challenge* (pp. 1-23). New York, NY: Norton.

Erikson, E .H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.

Fall, K. A., Holden, J. M., & Marquis, A. (2004). *Theoretical models of counseling and psychotherapy.* New York, NY: Brunner-Routledge.

Glasser, W. (1996). *Schools without failure.* New York, NY: Harper & Row Publishers.

Glasser, W. (1998). *Choice theory.* New York, NY: HarperCollins.

Goleman, D. (2006). *Social intelligence: The revolutionary new science of human relationships.* New York, NY: Random House.

Hawkins, J. D. (1997). Academic performance and school success: Sources and consequences. In R. P. Weissberg, T. P. Gullotta, R. L. Hampton, B. A. Ryan, & G. R. Adams (Eds.), *Healthy children 2010: Enhancing children's wellness* (pp. 278-305). Thousand Oaks, CA: SAGE.

Hawkins, J. D., Farrington, D. P., & Catalano, R. F. (1998). Reducing violence through the schools. In D. S. Eliot, B. A. Hamburg, & K. R. Williams (Eds.), *Violence in American schools: A new perspective* (pp. 188-216). Cambridge, England: Cambridge University Press.

Jensen, E. (2005). *Teaching with the brain in mind* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

MacIver, D. J. (1990). Meeting the needs of young adolescents: Advisory groups, interdisciplinary teaching teams, and school transition programs. *Phi Delta Kappan*, *71*(6), 458-464.

Makkonen, R. (2004). Advisory program research and evaluation. *Horace, 20*(4), 104-119.

Marlowe, B.A., & Page, M. L. (1998). *Creating and sustaining the constructivist classroom.* Thousand Oaks, CA: Corwin Press.

Marzano, R. J. (with Marzano J. S., & Pickering, D. J.) (2003). *Classroom management that works.* Alexandria, VA: Association for Supervision and Curriculum Development.

Maslow, A. H. (1954). *Motivation and personality*. New York, NY: Harper.

McNeely, C. A., Nonnemaker, J. M., & Blum, R. W. (2002). Promoting student connectedness to school: Evidence from the National Longitudinal Study of Adolescent Health. *Journal of School Health, 72,* 138-146.

Mobily, K. E., Malcom, S. M., & Bedford, R. L. (1990, May). Semantics of play and work among children and adolescents. In B. J. A. Smale (Ed.), *Leisure challenges: Bringing people, resources and policy into play.* Presented at the proceedings of Sixth Canadian Congress on Leisure Research: Ontario Research Council on Leisure, Ontario.

Neil, D. T., Wood, W., & Quinn, J. M. (2006). Habits: A repeat performance. *Current Directions in Psychological Science, 15,* 198-202.

Nicholls, J. G. (1986, April). *Adolescents' conceptions of ability and intelligence.* Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Osterman, K. F. (2000). Students' need for belonging in the school community. *Review of Educational Research, 70,* 323-367.

Panksepp, J. (1998). *Affective neuroscience: The foundations of human and animal emotions*. New York, NY: Oxford University Press.

Payton, J., Weissberg, R. P., Durlak, J. A., Dymnicki, A. B., Taylor, R. D., Schellinger, K. B., & Pachan, M. (2008). *The positive impact of social and emotional learning for kindergarten to eighth-grade students: Findings from three scientific reviews.* Chicago, IL: Collaborative for Academic, Social, and Emotional Learning.

Piaget, J. (1959). *The language and thought of child.* New York, NY: The Humanities Press. (Original work published 1923)

Reis, H. T., & Patrick, B. C. (1996). Attachment and intimacy: Component processes. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychol-*

ogy: Handbook of basic principles (pp. 523-563). New York, NY: Guilford Press.

Rogers, C. R. (1963). The actualizing tendency in relation to "motives" and to consciousness. In M. R. Jones (Ed.), *Nebraska symposium on motivation* (Vol. 11, pp. 1-24). Lincoln, NE: University of Nebraska Press.

Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context.* Oxford, England: Oxford University Press.

Ryan, R., & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78.

Schaps, E., Battistich, V., & Solomon, D. (2004). Community in school as key to student growth: Findings from the Child Development Project. In J. Zins, R. Weissberg, M. Wang, & H. Halberg (Eds.), Building academic success on social and emotional learning: What does the research say? New York: Teachers College Press.

Sheldon, K.M., Elliot, A.J., Kassar, T., & Kim, Y. (2001). What is satisfying about satisfying events? Testing 10 candidate psychological needs. *Journal of Personality and Social Psychology, 80*(2), 325-339.

Sheldon, K. M., Ryan, R. M., & Reis, H. (1996). What makes for a good day? Competence and autonomy in the day, and in the person. *Personality and Social Psychology Bulletin, 22,* 1270-1279.

Udry, J. R. (2003). *The National Longitudinal Study of Adolescent Health* (Add Health), Waves I & II, 1994-1996; Wave III, 2001-2002 [machine readable data file and documentation]. Chapel Hill, NC: Carolina Population Center, University of North Carolina at Chapel Hill.

Vygotsky, L. S. (1986). *Thought and language.* Cambridge, MA: MIT Press. (Original work published 1934)

Wang, M. C., Haertel, G. D., & Walberg, H. J. (1997). Learning Influences. In H. J. Walberg & G. D. Haertel (Eds.), *Psychology and educational practice* (pp. 199-211). Berkeley, CA: McCutchan.

Wentzel, K. (1993). Does being good make the grade? Social behavior and academic competence in middle school. *Journal of Educational Psychology, 85,* 357-364.

Wentzel, K. R., Barry, C. M., & Caldwell, K. A. (2004). Friendships in middle school: Influences on motivation and school adjustment. *Journal of Educational Psychology, 96*(2), 195-200.

White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review, 66,* 297-333.

Wolfe, P.A. (2001). *Brain matters: Translating research into classroom practice.* Alexandria, VA: Association for Supervision and Curriculum Development.