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# The Journal

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## OF AT-RISK ISSUES

National Dropout Prevention Center/Network  
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# The Journal OF AT-RISK ISSUES

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# The Journal of At-Risk Issues

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## Overview of Special Issue

The National Dropout Prevention Center for Students with Disabilities (NDPC-SD) was established at Clemson University in 2004. This new Center serves the overall goal of increasing rates of school completion by students with disabilities, emphasizing dropout prevention for enrolled students and reentry into education by students who have dropped out of school. The Center (<http://www.dropout-prevention.org/NDPC-SD/index.htm>), using a broad base of talent and resources, focuses on interacting areas to improve graduation rates for students with disabilities. The Center is excited to sponsor this special issue of *The Journal of At-Risk Issues* devoted to the prevention of students with disabilities from dropping out of school.

Because of the numerous and expansive variables that lead to students dropping out of school, the topics in this special issue are varied. Kortering and Konold address issues relating to students with disabilities coming to school. Riccomini and colleagues describe evidence-based practices in the area of cognitive-behavioral interventions. Butler and colleagues describe the results of a survey regarding truancy and related delinquent behaviors of high school students. Fontana describes a study investigating the effectiveness of co-teaching on eighth-grade students with learning disabilities. Zhang and Hasto review results of existing research providing empirical links between student self-determination and in-school and post-school outcomes. They also review several practices that promote student self-determination. Milligan and Nichols describe the life and educational experiences of an individual who is gifted and learning disabled.

Preventing dropout and improving school completion rates for students with disabilities is a critical and immediate national goal. The Center is privileged to be on the forefront of this national effort to improve educational outcomes for students with disabilities.

*Loujeania Williams Bost, Guest Editor  
National Dropout Prevention Center for Students with Disabilities  
Clemson University*







# An Examination of the Reasons for Coming to School Among Youths With Learning Disabilities

Larry Kortering and Tim Konold

**Abstract:** *The motivation to come to school, like most behaviors, may be influenced by specific features of one's high school setting. If this premise is true, teachers could restructure settings with attention to specific interventions that capitalize on the motivations of the youths, a feature which may improve school completion rates. A previous study, using the Reasons Youth Have for Coming to School Scale, identified five specific motivations youths reported for coming to school. The current study compared the motivation pattern for a sample of 37 youth with Learning Disabilities (LD) and 456 general education peers. Results indicated that youths with LD had a similar motivational pattern to their general education peers.*

Youths with LD complete high school at a relatively low rate. The Office of Special Education Program's (OSEP) Twenty-second Annual Report (2002) shows that, among youth with LD in the 1998/9 school year, some 100,600 and 13,700 were graduated with a diploma or certificate, respectively. Another 68,000 youth with LD moved, but were reported to have continued in school, while some 1,000 youths reached their maximum age of attendance. During this same period some 43,000 youths with LD left school as identified dropouts and another 34,900 left school but had not reenrolled in another school and it is likely that many of these youths actually became school dropouts. These numbers suggest that, at best, 114,000 youths successfully completed their high school program (diploma or certificate), while as few as 43,000 left as school dropouts. The corresponding "best possible" rate of school completion would be slightly over 73 % (including diploma and certificates), while the lowest rate would 59 % (counting as dropouts all youths who had exited but not had been known to have reenrolled). This scenario suggests that the actual school completion rate probably falls between 60 % and 70 %. Furthermore, this school completion rate is consistent with OSEP data from as far back as the 1984/5 school year (Office of Special Education, 1987).

For comparison, the high school graduation rate among general education youths continues to slowly inch upward. Recent reports show that the national high school completion is close to 90 % (Education Statistics Quarterly, 2001; Newburger & Curry, 1999). This rate takes into account young adults who complete a standard high school program, adult high school program, or earn their General Education Development (GED) certificate. Nearly half of all general education dropouts eventually complete an adult high school program or earn their GED (Center for Adult Learning and

Educational Credentials, 1999; Wayman, 2001). Obviously, this feature has a significant impact on the national school completion rate. Research suggests that, in contrast to their peers, youth with disabilities who drop out of special education programs, seldom enroll in adult programs or obtain a GED (Center for Adult Learning and Educational Credentials, 1999).

The low rate of school completion among youth with LD is a critical issue to the field of special education (Scanlon & Mellard, 2002). First, special education professionals develop individual educational programs (IEPs) that purport to address the unique needs of each individual student (Individuals with Disabilities, 1997). These programs promise an education that will bestow meaningful educational benefit to youths with disabilities. Yet, many youths drop out of their special education opportunity. The decision to drop out suggests that their IEP failed in some way to direct services toward keeping youth in school and, as a result, fell short of the meaningful standard benefit (Bakken & Kortering, 1999). Second, society makes a substantial investment in services for youths with disabilities. This investment, on a per student basis, more than doubles that made for peers in general education (Center for the Future of Children, 1996; Chambers, Parrish, Lieberman, & Wolman, 1998; Horn & Tynan, 2001). Yet, the low completion rate offers critics support for their contention that special education, as currently structured, is a poor investment (Lankford & Wyckoff, 1995; Odden, Monk, Nakib, & Picus, 1995). It also would seem to undermine recent efforts to raise the federal government's funding rate of special education from the current 12 % of excess costs to 40 % (Horn & Tynan, 2001). Third, changes in the Individuals with Disabilities Education Act (IDEA) of 2000 should improve services for youths with disabilities in high school settings. The new regulations direct teachers toward inter-

ventions that produce positive outcomes for youth that transition from school to postsecondary schooling or work settings (Individuals with Disabilities, 1997). The foundation for productive outcomes, like postsecondary enrollment or suitable employment, begins with interventions that work to keep the youths in school.

The traditional way of looking at the low rate of school completion involves efforts, often punitive in nature, to change a student's attendance pattern, performance level, or academic success (Weitzman & Siegel, 1992). The focus here is on the student and their limitations in some way as the source of needed change. An alternative approach entails identifying factors that motivate students to come to school and eventually be graduated. This approach makes two important assumptions. First, the decision to come to school is a necessary step for academic success, school engagement, and eventual school completion. Second the act of coming to school, like most motivated behaviors, can be influenced by changes in the high school setting and targeted interventions.

Previous research offers a number of explanations for the motivations students might have for coming to school and eventually completing school. For instance, Hollingshead (1949; 1975) conducted interviews with 745 adolescents from a mid-western city, including 390 youths who had dropped out of school. He reported that those who stayed in school were often involved in school activities, had support at home or school, and generally perceived a high school education as something desirable. Subsequent studies and theoretical models offer other useful frameworks to conceptualize the act of coming to school and eventual completion (Battin-Pearson, et al., 2000; Coleman, 1988; Felice, 1981; Finn, 1989; Newmann, 1981; Wehlage & Rutter, 1986). Many of these studies support the idea that youths have specific motivations for attending school. The following section reviews selected studies that support four (i.e., personal development, socializing with peers, participating in extracurricular activities, pleasing an authority figure) of the five motivations that have emerged on the *Reasons Youth Come to School Scale (RYCS)*. The remaining motivation, termed "nothing better to do," lacks a research base beyond the speculation that youths may lack appropriate options outside of going to school. In other words, one reason, though not supported by research, for coming to school may be a lack of suitable options beyond hanging out with some group of peers, sitting at home, or taking on entry-level jobs.

Several researchers provide a conceptualization of the feature that youths may come to school to improve their personal or career development. Felice's (1981) use of Exchange Theory shows how personal development might motivate one's commitment to coming to school. The theory, initially applied to explain organizational commitment and employee turnover (Whitner & Waltz, 1993), posits that youth exchange their time and effort as long as they perceive it as leading to a long- or short-term benefit. This benefit might include the development of desired job skills, career maturity, or preparation for college. More recently, Benz, Lindstrom, and Yovanoff (2000) summarized this feature by noting that adolescents with disabilities want access to an education they deem challenging and relevant, while preparing them for life after school.

Fine (1986) reported that urban students who stayed in school were quick to point out that they viewed a high school education as relevant to their future lives. This perception was in contrast to that

of peers who had dropped out. A second study involving extensive interviews with youths from several high schools showed that students were most interested and engaged in classes that had a direct connection to their career ambition (Csikszentmihalyi & Schneider, 2000). The interviews also demonstrated that youths became frustrated and bored in classes they deemed as lacking relevance for their future. Finally, Kortering and Braziel (2001a; 2001b) conducted individual interviews with 265 youths with LD, including some who had dropped out of school. These youths reported that the number one advantage, accounting for over 80% of all responses, for staying in school was that it would lead to a better future in some way (e.g., a better job, a better life, or entry into a college).

Ben Franklin wrote that school should be delightful for students (Best, 1980), which to many would suggest a role for socializing with peers. Dewey (1916) also offered support for the notion of socializing with peers by describing how learning occurs most often when tied to a social context. Other researchers describe how the social context influences one's motivation to succeed in high school academic setting (Hidi & Harackiewicz, 2000; Ryan, 2000; Wentzel, 2000). If one believes such ideas, opportunities to socialize with peers may be a powerful motivator for the act of coming to school.

Csikszentmihalyi and Larson (1984) conducted an involved study that examined what youths did while in and outside of high school. They found that youths had the highest rates of engagement and enjoyment, in and outside of school, when they were socializing with peers. Another study involving interviews with 374 youths who had dropped out found them reporting that making new friends and same-sex friendships were the two best features of high school (Tidwell, 1988). Similarly, interviews involving youths with LD revealed that socializing with peers (50%) was the best part of high school, followed by a specific class or classes that they enjoyed in some way or were successful in (40%) (Kortering & Braziel, 2001a; 2001b).

Several studies have shown that extracurricular activities have a positive impact on a number of school-related factors, including school completion. The idea that extracurricular activities can help youths to stay in school stems from a belief that such activities promote an individual's status in school or their social identification with school (Csikszentmihalyi & Larson, 1984). For instance, Finn (1989) described how participating in extracurricular activities helps one to identify with the school environment and become more active as a student. Mahoney (2000) also argued that participating in extracurricular activities provides youths with an opportunity to form a positive connection with peers, teachers, and the school in general. This participation also allows youths to demonstrate competency in a nonacademic arena.

Hollingshead (1949; 1975) found that youth who had been graduated were much more likely to be active participants in school-sponsored activities, like interscholastic sports or school-based groups. A more recent study of the impact of nonacademic activities outside of school (i.e., sport, artistic, and technical groups) showed how extracurricular activities provided an alternative path to achievement for many young people who were not high achievers in school settings (Murtaugh, 1988). The author speculated that such activities are a source of information for how teachers can motivate students to succeed in school and formulate future life goals. Marsh (1992) used a sophomore cohort of the national *High School and Beyond* study



to show how participation in extracurricular activities (e.g., sport teams, school subject clubs, dance or chorus teams, and student government) had a positive impact on a variety of outcomes. These outcomes included academic and social self-concept, educational aspirations, homework, school attendance, and college goals. Mahoney and Cairns (1997) found that participation in extracurricular activities had a significant and positive impact on whether youths identified as at risk while in middle school decided to stay in school through the 11<sup>th</sup> grade (what the authors termed early school dropout). Finally, Mahoney (2000) reported that such participation continued to affect school completion into later years and also moderated antisocial behavior in later years (including criminal activity).

The idea that pleasing an adult in some way affects a youth's decision to come to school draws support from studies that have shown that family structure and composition affect a youth's schooling, including their decision to continue coming to school (Coleman, 1988; Teachman, Paasch, & Carver, 1996). Coleman (1988) provided a framework for conceptualizing the role parents and family play in getting a youth to come to and stay in school. He uses the term social capital as a way to gauge a family's resources to support and encourage a child's education and human capital to refer to the educational level of parents. Both these forces affect school completion. Newmann (1981) also described how dropouts experience frustrating relationships with their teachers, while Wehlage and Rutter (1986) note that an affiliation to school begins with student's belief that a significant adult from the school cares about them.

Teachman, Paasch, and Carver (1996) analyzed the National Educational Longitudinal Survey to examine family features and school completion. They reported that increased changes in school enrollment (generally due to parental relocation), fewer parent/child interactions about school, and a non-intact or nontraditional family structure played key roles in a child's decision to drop out of school between grades 8 and 10. These factors each hint at how a foundation for supporting a child's continuing in schooling may be undermined by forcing a child to regularly change teachers. Epstein (1992) used a series of case studies to illustrate that dropouts often complain about uncaring educators and humiliation they experienced in high school. Her research led her to conclude that all students need access to an educator who cares about them. Youths who do not have such access apparently lose a major source of support for their education and presumably their motivation to come to school. Furthermore, some research has established that outside the home caregivers and service providers begin playing a major role as early as preschool (Hofferth, Shauman, West, & Henke, 1998; Hofferth, 1998) and, for some students, in Rosenthal (1995) found that social support for one's education was essential for school completion among a sample of Haitian youths. This social support primarily came from the adults in the child's family. A national study involving nearly 17,000 families demonstrated that the father's role, while important throughout a child's schooling, proves most influential in grades 6 to 12 (Winquist-Nord, Brimhall, & West, 1997). Sinclair, Christenson, Evelo, and Hurley (1998) provided evidence to support the idea that a sustained dropout prevention program, anchored by a caring and supportive adult monitor, could significantly reduce school dropout rates among students with learning or behavioral problems. Finally, a prospective study of high school dropouts demonstrated that the quality of one's early

home environment, in terms of access to educated and interested parents or adults, proved instrumental in predicting eventual school dropouts (Jimerson, Egeland, Sroufe, & Carlson, 2000).

For this study, we wanted to compare the motivations youth with LD have for coming to school to that of their general education peers. We also sought to determine the relative influence of these motivations. Findings related to these questions then could be useful in conceptualizing interventions that hold promise for keeping more youth in school.

## Method

### *Participant and Setting Description*

Participants with LD in this study included 37 youths. These participants, in the spring of 2002, were in inclusive high schools. Thirty-three participants were in general education all day, while four were in general education for 75 % of the school day. The participants attended two different high schools, both using a block or four-period schedule. The participants were on a standard diploma track as opposed to an honor track or occupational diploma program. The participants represented over 94 % of all youths with LD being served in general education settings. Nonparticipants were ill on the days we administered the survey or had dropped out of school prior to the survey's administration. The general education peers were simply in the surveyed classes at the time of study and, again, represented over 94 % of all general education students in these classes.

Two county districts (District A and B) in a southeastern state were the setting for the participants with LD. Census (U.S. Census Bureau, 2002) data showed the counties to have comparable rates of childhood poverty (18.6 % and 16.1 %) and median household money incomes (\$32,113 and \$31,013), but different rates of unemployment (7.6 % and 2.4 %). In addition, Haynes (1999) reports that the districts had comparable funding levels for 1998 (\$5,282 and \$5,793 per student) that were below the state average of \$6,029.

Participants with LD came from two distinct high school settings (School A and B). The school populations were 80 % and 96 % white. School A has a minority population that was 12 % African American, 6 % Asian, and 2 % Hispanic, while School B's largest minority population was African American (2 %). Both schools retain a public reputation of focusing on preparing students for college. For instance, in 1999 School A ranked 4<sup>th</sup> (1,055) in the state on the Scholastic Achievement Test (SAT) and School B was above the state average (983 versus 978). The national average was 1,018 for this same period. The overall school populations were 1,900 and 1,200 students, respectively.

### *Scale Development*

We developed the *Reasons Youth have for Coming to School (RYCS)* scale in the following manner. The first step involved generating a list of potential reasons youths might have for coming to school. To accomplish this, we asked 201 youths to provide specific reasons why they came to school. These youths provided over 500 individual reasons. We reduced this initial item pool by first removing redundant items and then deleting items that appeared less than five times. Next, we combined items that were similar. We then had an item pool of 72 specific items that we then set to a Likert-like scale (strongly agree, slightly agree, unsure, slightly disagree, and strongly disagree).

A second sample of 285 youths responded to the initial RYCS. Based on their responses, we were able to develop a five-factor conceptual model that included 51 of the original 72 items. This model accounted for 42 % of the total item variance and had factor reliabilities, using Cronbach's (1951) coefficient alpha, ranging from .72 to .90.

## Data Collection

We collected data for this study in the following manner. As part of a federal grant, we routinely collect information on student perceptions of high school and specific general education classes. This information includes surveys of their perceptions of their general education classes. During the spring of 2002, we asked these participants to also complete the RYCS. We informed them of the additional survey, described assurances of confidentiality (e.g., the use of unique alphanumeric coding instead of their names), and asked them to provide consent. Two general education peers opted to not participate, but all youth with LD agreed to participate. For the purposes of this study, we did not include the responses of a small number of youth identified as behavior disordered or other health impaired.

The survey was administered in the general education classroom (biology, algebra, or history) and required about 15 to 20 minutes for all participants to complete. During each administration, participants had access to a minimum of two adults (one researcher and their teacher or another adult) in the event of needed assistance. In classes of 25 or more students, we provided access to three adults (one researcher, one graduate student, and one other adult). In each case, the participants were familiar with the adults.

## Limitations

A consideration of the results of this study warrants consideration of several limitations. First, the samples may not adequately reflect the target groupings. For instance, youths with LD appear overrepresentative of younger and White students due to the school settings they represent. Second, as with most any survey and self-reported data (Schwartz, 1999), we have no way of independently verifying the truthfulness of their survey responses and we assume that the respondents were truthful in reporting their perceptions. Third, the sample of participants with LD is disproportionate to their general education peers. This imbalance represents the feature that at any given time, in the schools of study, roughly seven to eight percent of all students in general education settings are identified as LD. Similarly, comparison in terms of age, grade, family SES, and ethnicity were not made due to the limited number of participants with LD that would fall into these respective subgroups.

## Results

### *The Motivations Youth With LD Have for Coming to School and Their Relative Influence*

The results show that, like their general education peers, youths with LD report a specific motivational pattern for coming to school. These motivations vary in relative influence with personal development and socializing proving most influential. In combination these two motivations prove nearly twice as influential as the remaining three motivations (nothing better to do, participating in extracurricular

activities, and pleasing an authority figure).

Table 1

Demographic Variables

		Youths w/ LD	General Education Peers
Variable		x (SD)	n
		37	456
<b>Intelligence:</b>	Full-Scale IQ score	91.3 (10.1)	NA
	Verbal IQ score	91.7 (15.1)	NA
	Performance IQ score	90.8 (13.5)	NA
<b>Achievement:</b> <sup>a</sup>	Reading Composite	87.4 (10.5)	NA
	Math Composite	89.1 (14.2)	NA
	Written Language	77.8 (9.1)	NA
		n (%)	n (%)
<b>G.P.A.</b> <sup>b</sup> <b>(grade point average)</b>	3.5 to 4.0	4 (10.8 %)	67 (14.7 %)
	3.0 to 3.49	10 (27.0 %)	173 (37.9 %)
	2.5 – 2.99	13 (35.1 %)	135 (29.6 %)
	2.0 – 2.49	5 (13.5 %)	43 (9.4 %)
	< 2.00	4 (10.8 %)	18 (3.9 %)
		n (%)	n (%)
<b>Eligible for Free Lunch at School</b>		13 (35.1 %)	150 (32.9 %)
<b>Eligible for Reduced Price Lunch</b>		4 (10.8 %)	51 (11.2 %)
<b>Percent Living with Two Parents</b>		22 (59.5 %)	256 (56.1 %)
<b>Race:</b>	% White	27 (73 %)	274 (60.1 %)
	% African American	5 (13.5 %)	100 (21.9 %)
	% Hispanic, non-Latino	3 (8.1 %)	63 (13.8 %)
	% other	2 (5.4 %)	17 (3.7 %)
<b>Gender</b>	(% Male)	23 (62.2 %)	232 (50.9 %)
<b>Grade</b> <sup>c</sup>	9th	18 (48.6 %)	254 (55.7 %)
	10th	12 (32.4 %)	124 (27.2 %)
	11th	5 (13.5 %)	54 (11.8 %)
	12th	2 (5.4 %)	21 (4.6 %)
<b>Age</b> <sup>be</sup>	15	20 (54.1 %)	303 (66.4 %)
	16	9 (24.3 %)	75 (16.4 %)
	17	5 (13.5 %)	43 (9.4 %)
	18	2 (5.4 %)	15 (3.3 %)
	19	0	6 (3.1 %)
<b>School</b> <sup>d</sup>	A	21 (56.8 %)	382 (83.8 %)
	B	16 (43.2 %)	72 (15.9 %)

Note:<sup>a</sup> Based on the respective composite scores for the Woodcock Johnson Test of Educational Achievement—Revised or Weschler Individual Achievement. Test.<sup>b</sup> Missing one response from participants with LD;<sup>c</sup> Missing responses from five general education participants;<sup>d</sup> Missing responses from two general education participants;<sup>e</sup> Missing responses from 14 general education participants.



## A Comparison of Their Motivations to General Education Peers

The means and standard deviations for the five RYCS scales are in Table 2. A multivariate analysis of variance failed to demonstrate statistically significant differences on any of the five motivations, Wilk's multivariate  $F(5,487) = .346$ ,  $p = .885$ . These results indicated that, relative to general education peers, participants with LD find the various motivational factors to be equally influential reasons for coming to school. As a follow-up, an independent  $t$ -test compared these groups on the RYCS total score and again failed to reveal any statistically significant differences,  $t(491) = .43$ ,  $p = .67$ . These analyses indicate that youth with LD and their peers find the RYCS motivational factors equally influential reasons for coming to school.

Table 2

Means and Standard Deviations of Scaled Scores

Factor	Youths LD <i>M (SD)</i>	Peers <i>M (SD)</i>
Personal or Career Development	55.08 (13.97)	55.23 (13.8)
Socialize With Peers	47.16 (11.46)	45.49 (12.96)
Nothing Better To Do	21.92 (9.44)	20.98 (7.71)
Extracurricular Activities	14.81 (7.37)	15.16 (6.46)
Please an Authority Figure	15.22 (4.93)	14.76 (5.35)
Total Scale	154.19 (30.10)	151.62 (35.02)

## Discussion

The results point to three important practical considerations affecting our understanding how educators can improve school completion rates for youth with LD. First, youths with LD, like their peers in general education, have specific motivations for coming to school. The most influential motivation is the desire to get an education that leads to better job prospects, an improved quality life, or prepares them for further schooling. This motivation suggests that personal or career development, as perceived by youths, may be central to their decision to stay in or drop out of school. The next most influential motivation is a desire to socialize with their peers. Both these motivations, in combination, are nearly twice (for youths with LD) to four times (non-dropout peers) as influential as the remaining three motivations. The remaining motivations (having nothing better to do, participating in extracurricular activities, and pleasing another adult), while less influential remain worthy of consideration and may play a more dominant role for individual youths. Furthermore, such motivations may be affected by other features including one's culture and community.

Educators, with an appreciation of the importance of personal or career development, could provide regular information or feedback that shows the youth how their education is preparing them for a productive adulthood. Specific interventions could include formal vocational assessments that help a youth to see the connection between their suitable career ambitions and schoolwork, self-determination activities that connect schoolwork to career ambitions, job club support for help with finding suitable jobs, and Individual Transition Plans that allow students to actively monitor their progress through

school and toward appropriate careers (Kortering & Braziel, 2002). Educators could implement various strategies that capitalize on the motivation youth have for socializing in some way. These strategies could include cooperative learning (Kagan, 1994; Slavin, 1990), peer or mentor tutoring services (Hock, Pulvers, Deshler, & Schumaker, 2001), and other group work. The idea that each youth have access to an adult whose influence would encourage a youth's attendance at school (with particular attention to youths who may not have access to two parents or a caring parent) is a third area to target. In practice, at least one study demonstrated how the use of such an adult improved the engagement in school activities for students with learning or behavioral problems (Edgar & Johnson, 1995; Sinclair, Christenson, Evelo, & Hurley, 1998). Other ideas might follow the more traditional mentor programs that have been used successfully in school settings (Hamilton & Hamilton, 1992). Additional encouragement to get youths to participate in extracurricular activities also seems appropriate. A final consideration relative to these motivations is that interventions, tailored to the respective motivation, are within the control of individual educators and schools, as opposed to the more traditional interventions that often target student remediation in some way or trying to change the student's family environment.

The second important practical consideration relates to the overall patterns of motivation. Youths with LD may require explicit connections or explanations to help them understand the relevance of what they do in school or may need assistance in developing appropriate career ambitions (Benz & Lindstrom, 1997; Kortering & Braziel, 2002). To this end, the Individual Educational Program (IEP), and its companion Individual Transition Plan (ITP), offer what appears to be an ideal framework. This framework provides an annual process for reviewing a youth's personal or career development. IEP goals could focus on specific components of personal development, including career maturity, crystallized career ambitions, and preparation for college.

Motivation patterns may help explain the lower rate of school completion among students with LD. They may be less inclined to understand the relevance of a high school education or gradually move to a perception that their high school education is less relevant to their future or current interests. Again, the IEP and ITP process offers an intriguing avenue for addressing these concerns. For instance, the process allows teachers a regular opportunity to gauge a student's motivation for staying in school and ask questions pertaining to how their program is affecting their motivations. In essence, we might consider perceiving the student as a sort of consumer of services whose feedback is instrumental in helping us to maintain their motivation to continue participating in their individual educational program.

Finally, the decision to discontinue the act of coming to school is a process that evolves over time. Furthermore, this decision has a significant impact on one's career development and post-school outcomes. We know that this process often begins with students becoming disengaged from their school experience prior to high school (Roderick & Camburn, 1999). We can no longer ignore the implications of a youth's decision to eventually drop out of school. We must pursue alternatives, at earlier levels of schooling, that encourage their motivation to succeed, enjoy school, and foster a motivation to get at least a high school education. The development of interventions tailored to their motivations for coming to school in the first place

seems an obvious first step to such an end. Thus educators may be able to encourage eventual school completion and enhance post-school outcomes by tailoring interventions, at a group and individual level, to the various motivations youth have for coming to school.

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# Promising Schedule-Based Interventions for Reducing Aggressive Behavior and Student Dropout

Paul J. Riccomini, Dalun Zhang, and Antonis Katsiyannis

**Abstract:** *This article synthesizes findings from previous research on effective interventions for students exhibiting aggressive behavior in an effort to reduce the likelihood that these students will drop out of school. Because aggressive behaviors can negatively impact academic success and increase the probability of dropping out of school, evidenced-based dropout prevention practices are especially needed by schools. Based on a systematic review of literature and subsequent meta-analysis, Cobb, Sample, Alwell, and Johns (2005) concluded that cognitive-behavioral interventions were effective in reducing aggressive behavior and the likelihood of dropping out of school. Findings from this review highlight interventions for secondary public school settings and include (a) anger control curriculum, (b) cognitive-behavioral training, (c) self-management skills training, (d) alternative social response training, and (e) sustained school engagement procedure—Check and Connect. An overview of additional resources is also provided.*

The No Child Left Behind Education Act of 2001 (NCLB) is arguably the most significant federal legislation intended to improve the academic achievement of students across the United States. The Act establishes a rigorous accountability system that involves rewards and punishments for states and schools based on student performance. These stringent requirements under NCLB, particularly with regard to adequate yearly progress (AYP) and graduation and dropout goals, present an enormous challenge for educators (Simpson, LaCava, & Graner, 2004), especially with regard to students with disabilities.

Of particular concern for school personnel are the dismal outcomes experienced by students exhibiting inappropriate/aggressive behaviors, typically classified as students with emotional and behavioral disorders (E/BD). Students with serious behavior problems are already experiencing school failure and yet school administrators often implement disciplinary decisions resulting in exclusions from school (Jackson & Panyan, 2002; Morrison & D'Incau, 2000). Exclusions, however, are often counterproductive in reducing problem behaviors and often precursors to grade retentions, dropping out of school, academic failure, and delinquency (Cartledge, Tillman, & Johnson, 2001; Elias, 1998).

Students with E/BD are reported to have the lowest GPA for any group of students with disabilities, as well as lower rates in grade level competency exams. It is estimated only 2/3 of students with E/BD are able to pass end-of-year competency exams (Anderson, Kutash, & Duchnowski, 2001; Heward, 2003; Bradley, Henderson, & Monfore, 2004). The combination of low achievement and deviant behaviors puts students with E/BD at serious risk for

difficult and detrimental life experiences (Maag & Katsiyannis, 1998). Consequently, a need exists for educators to implement scientifically-validated interventions that are more individualized, positive, and that provide more function-based support for students with E/BD (Martin, Tobin, & Sugai, 2002).

Cobb, Sample, Alwell, and Johns (2005) concluded that cognitive-behavioral interventions were effective in reducing aggressive behavior and dropping out of school through a meta-analysis of 16 studies intervening with 791 youth with behavioral disorders, attention deficit/hyperactivity disorders, and learning disabilities. This brief focuses on eight of the studies included in the meta-analysis because they involved secondary public school settings. The intervention areas include: (a) Anger Control Curriculum, (b) Cognitive-Behavioral Training, (c) Self-Management Skills Training, (d) Alternative Social Response Training, and (e) Sustained School Engagement Procedure—Check and Connect.

## Anger Control Curriculum

Robinson, Smith, and Miller (2002) investigated the effects of a curriculum that focused on teaching cognitive problem-solving skills on inappropriate behavioral responses to anger. The subjects included 13 middle school children with chronic behavior problems enrolled in a special school and 28 students with emotional or behavioral disorders enrolled in self-contained classrooms. The treatment involved implementing an Anger Control Curriculum, which targets inappropriate behavioral responses to anger by middle school students. The curriculum focuses on teaching cognitive problem-solving skills. The curriculum includes six elements: understanding and handling anger,

effective communication, relaxation techniques, problem-solving skills, modeling of intervention steps, and practices. The treatment includes the following two steps.

- In Step One, the teacher provides instruction to the target students on the 10 lessons in five weeks (two lessons per week); each of the lessons lasts about 50 minutes.
- In the second step, following the 500 minutes of treatment exposure, the students go through another five practice sessions for five weeks (one session per week), each of which lasts 50 minutes. A major feature of the curriculum is it involves a great deal of discussions, role-playing, and student activities.

The researchers analyzed data comparing the posttest performance of students in the treatment group to the performance of students in control groups and found a number of significant differences favoring students in the treatment group. The differences existed in State Anger, Angry Temperament, Angry Reaction, Anger-Out, and Anger Control. Teachers who provided instruction to the students also reported positive changes shown by the students.

Presley and Hughes (2000) examined the use of peer delivered instructional interventions to teach four high school students (ages 14 to 17) with behavioral disorders to express anger appropriately. The instructional interventions included peer instruction, self-instruction, and a traditional anger control program. Instruction was presented directly to these four students by general education peers. Three peer trainers were taught to conduct social skills instruction in a 30-minute individual training session. A total of 21 situational role plays were used. Five of these instructional plays were adapted from the Walker Social Skills Curriculum; the remaining plays were based on observations of student interactions.

The intervention, the Triple A Strategy (ASSESS, AMEND, and ACT) was adapted from the Walker Social Skills Curriculum. Specifically, during ASSESS, the students were taught to perform a six-step self-instructional sequence—wait for three seconds before responding and then stating and answering aloud five questions (e.g., “what is going on?”; “Did he/she do this on purpose?”). During AMEND, participants role-played three steps designed to guide them in choosing an appropriate response (speaking to as opposed to hitting), express how they felt, and ask how the other person (peer trainer) felt. During the last part, ACT participants performed responses chosen during AMEND and verbally evaluated their performance of the Triple A Strategy.

Findings from the study indicated improvement in the way participants were able to express anger in role-play situations. In addition, three of the students decreased the rate at which they responded inappropriately in naturally occurring anger-provoking situations. This study is significant as it provided evidence that general education peers can be effective in teaching high school students to respond appropriately in anger-provoking situations during role plays as well as in natural settings (a decrease in the rate of anger behaviors).

### ***Cognitive-Behavioral Training Program***

Etscheidt (1991) recommended the use of a cognitive-behavioral training program to reduce aggressive behavior and increase self-control. The program was adopted from the Anger Control Program Model designed by Lochman, Nelson, and Sims (1981). It assists students in modifying their aggressive behaviors by altering their cognitive processing of events and response alternatives. Implementa-

tion of the program generally takes three weeks and consists of 12 structured 30-40-minute lessons. The core training program teaches students to engage in five steps in dealing with aggressive behaviors. These include

- stop and think before you act,
- say how you feel and exactly what the problem is,
- think of as many solutions as you can,
- think ahead to what might happen next, and
- try it when you have a good solution.

In her study, Etscheidt selected 25 male and 6 female adolescents with behavioral disorders enrolled in a special school. The participants' ages ranged from 12 to 18 years. She divided them into three groups: Group I participated in the cognitive-behavioral training program; Group II received this same training, plus a positive consequence for using the skills taught in the program; and Group III was a control group. The results of the study indicated that students in the two groups that received the cognitive-behavioral training did significantly better in self-control and exhibited fewer aggressive behaviors than students in the control group. The addition of an incentive, however, did not make significant differences.

Smith (1992) examined the efficacy of a metacognitive strategy to reduce aggressive acts and anger behavior of elementary and secondary students. Nine students (three in elementary, three in middle, and three in high school) placed in resource or self-contained classrooms were involved. Three multiple baseline across subjects (three students in each study) were used. The intervention utilized was a metacognitive strategy intended to enable students to control their own behavior through problem-solving techniques. The strategy training took place during a class period for five consecutive days. The elements of the strategy included a commitment to participate, teaching of the ZIPPER strategy (Zip your lips; Identify the problem; Put yourself on hold; Put yourself in charge; Explore other responses; Restart an activity) (Smith 1992; p.21), modeling and self-instruction training, practice (e.g., role playing) and feedback, and teaching for generalization.

Overall, findings indicated that students used the strategy to reduce aggressive behaviors and anger acts. The high school students appeared to reduce their aggressive acts though they stated that they did not use the strategy.

### ***Self-Management Skills Training***

Ninness, Fuerst, and Rutherford (1995) developed a self-management training program to reduce disruptive behaviors. This program involved videotaping target students' interruptive behaviors and subsequent analysis of these behaviors. Following the analysis of the behaviors, target students received formal instruction in classroom-related social skills and procedures for self-management in a frequency of one hour per day. Students also practiced on these skills with supervision and without supervision.

To investigate the effectiveness of the program, the researchers conducted a multiple baseline across settings single-subject research involving two boys, aged 13 and 14 years. The dependent variable they used to measure and examine effectiveness was off-task/disruptive behavior. Both students showed a significant drop of inappropriate behaviors during the treatment session.

## Training Alternative Social Responses

Knapczyk (1988, 1992) developed and examined the effectiveness of a treatment technique to reduce aggressive behaviors. The treatment involves application of modeling and rehearsal procedures to the training of social skills. Students learn social skills that serve as alternatives to aggressive behaviors in a particular setting, for example, the special education class and the gym class. Knapczyk's research studies demonstrated that the treatment significantly reduced aggressive behaviors for students participating in his study. Below is a description of the steps involved in this procedure.

- First, observations and analyses of appropriate behaviors in the setting are conducted to identify the types of social skills and interaction patterns that allow the students to successfully complete tasks without displaying aggressive behaviors.
- Second, a 10-minute videotape is prepared. In this video, two student leaders serve as actors. One of the student leaders simulates the target student's aggressive behaviors and demonstrates acceptable alternative responses; the other student leader's performance represents the actions and reactions of fellow students.
- Third, the special education teacher provides training to the target student. The training involves viewing the videotape with the target student, elaborating the episodes presented on the videotape, and indicating what happens if the participant exhibits appropriate or inappropriate social behaviors.
- Fourth, the target student is asked to present examples of his or her performance in the same setting that correspond to the videotaped segments and generate additional performance alternatives.
- Fifth, the teacher provides feedback to the target student concerning whether the alternatives meet the requirements of the situation.
- Next, the target student views the videotape repeatedly to describe the circumstances for performances, and rehearse alternative responses on the first three days of each treatment. Five days after viewing the videotape, the teacher monitors the target student's performances in the corresponding setting, discusses the student's performances with his or her at the end of the class, and provides praise and encouragement for the student's engaging in alternative social behaviors.
- In the final step, follow-up is needed to examine the long-term effects of the training by observing and recording the target student's engagement in alternative social behaviors when teacher training is terminated.

## Sustained School Engagement Procedure—Check and Connect

Sinclair, Christensen, Evelo, and Hurley (1998) examined the efficacy of a dropout procedure that involved monitoring and school engagement strategies. In this study, 94 students with learning and behavioral disorders received interventions in grades seven and eight; half continued receiving interventions in grade nine. The intervention program used was the Check and Connect, a dropout prevention and intervention procedure. Central in this program is the role of the monitor. This person typically carries a load of 25 students and focuses on students' educational progress and their engagement with school.

The "Check" component involves a student's engagement with school by monitoring on a daily basis tardiness, skipping classes,

detention, suspensions, course failures, and the accrual of credits. The "Connect" component involves the implementation of basic interventions such as sharing information about the monitoring system with the student, providing regular feedback about progress, discussing the importance of staying in school, and problem solving. Problem-solving activities were particularly emphasized. At least once a month, students were guided through real or hypothetical situations by using a five-step problem-solving strategy (i.e., 1. Stop. Think about the problem; 2. What are some choices?; 3. Choose one; 4. Do it; 5. How did it work?). The Connect component also involves intensive interventions such as problem solving (e.g., social skills groups, parent problem-solving meetings, behavioral contracts), academic support (e.g., tutoring/mentoring arrangements, academic contracts, class schedule adjustments) and recreation and community service exploration (e.g., after-school activities, community-based tutoring, summer job arrangements).

To assess the effectiveness of the program, three variables were considered—(a) participation in school (e.g., year-end enrollment status, attendance pattern, assignment completion); (b) school performance (e.g., accrual of credits, academic competence); and (c) connection to school (i.e., relevance of school and expectation to graduate). Students who participated in the program during ninth grade were more likely to be enrolled at the end of the year and have higher ratings in assignment completion (school participation) as well as more likely to accrue more credits and be on track to graduate in five years. No significant differences were noted regarding the measures associated with connection to school.

## Conclusions

Findings from this review support the importance of teaching appropriate nonaggressive behavior for students with E/BD. It is central to note that all of the interventions reviewed in this brief not only focused on reducing aggressive behaviors, but also focused on increasing appropriate social behavior. Directly and explicitly teaching students appropriate social interactions in difficult situations is an essential component of any intervention targeting aggressive behavior. Rather than simply decreasing aggressive behavior, the interventions taught and reinforced appropriate nonaggressive behavior.

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## Appendix A.

### *An Overview of Research-Supported Practices*

Lewis, Hudson, Richter, and Johnson (2004) identified the following evidence-based social behavior change practices within E/BD in addressing problem behaviors.

- **Teacher praise/reinforcement.** The application of contingent positive reinforcement following desired appropriate social behavior, typically in the form of teacher attention or recognition.
- **Opportunities to respond during instruction.** When teachers alter instructional methods and materials to permit or require high levels of correct on-level academic responding, there is an increase in task engagement (Sutherland & Wehby, 2001).

**Positive Behavior Support.** Positive Behavior Support (PBS) is defined as a “Broad range of systematic and individual strategies for achieving important social and learning outcomes while preventing problem behavior” (Sugai et al., 2000). PBS as a practice incorporates several individually empirically validated practices into a continuum of supports for students with challenging behavior from universal or schoolwide supports to intensive individual student supports (Lewis & Sugai, 1999, and the Center on Positive Behavioral Interventions and Supports (PBIS) <http://pbis.org>.)

- **Functional-assessment-based interventions.** The process for gathering information about the function of the behavior that may be used to maximize the effectiveness and efficiency of behavioral support (O’Neil, et. al., 1997).
- **Self-management.** Self-management programs typically involve two or more of the following strategies: self-monitoring, self-evaluation, and positive reinforcement. These programs aim to teach students responsibility for their social behavior and academic performance (Mitchem & Young, 2001).
- **Social skill instruction/teaching desired replacement behavior** (Sugai & Lewis, 1996).

## Appendix B.

### *Popular Social Skills Curricula*

**Second Step: A Violence Prevention Curriculum.** This program teaches social and emotional skills for violence prevention. The program includes research-based, teacher-friendly curricula, training for educators, and parent-education components (To purchase this curriculum visit < <http://www.cfchildren.org/ssf/ssf/ssindex/> > .)

**The Walker Social Skills Curriculum: The ACCESS program, adolescent curriculum for communication and effective social skills.** The program teaches peer-to-peer skills, skills for relating to adults, and self-management skills. The ACCESS curriculum, which is designed for use by both regular and special education teachers, may be taught in one-to-one, small-group, or large-group instruction formats (To purchase this curriculum visit [http://www.proedinc.com/store/index.php?mode=product\\_detail&id=0365](http://www.proedinc.com/store/index.php?mode=product_detail&id=0365).)

The following books and other resources may be purchased through Research On-Line, <http://www.researchpress.com/product/item/4950/#49854>.

- **Aggression Replacement Training: A Comprehensive Intervention for Aggressive Youth.** This intervention program is designed to teach adolescents to understand and replace aggression and antisocial behavior with positive alternatives. The program’s three-part approach includes training in Prosocial Skills, Anger Control, and Moral Reasoning.
- **The Prepare Curriculum: Teaching Prosocial Competencies.** *The Prepare Curriculum* presents a series of 10 course-length interventions grouped into three areas: reducing aggression, reducing stress, and reducing prejudice. It is designed for use with middle school and high school students and can also be adapted for use with younger students.
- **Skillstreaming the Elementary School Child.** *Skillstreaming* addresses the social skill needs of students who display aggression, immaturity, withdrawal, or other problem behaviors. The curriculum contains 60 skill lessons and includes five skill groups: Classroom Survival Skills, Friendship-Making Skills, Dealing with Feelings, Alternatives to Aggression, and Dealing with Stress.
- **Skillstreaming the Adolescent: New Strategies and Perspectives for Teaching Prosocial Skills.** *Skillstreaming* addresses the social skill needs of students who display aggression, immaturity, withdrawal, or other problem behaviors. The curriculum contains 50 skill lessons and includes six skill groups: Beginning Social Skills, Advanced Social Skills, Dealing with Feelings, Alternatives to Aggression, Dealing with Stress, and Planning Skills.

## Appendix C.

### *Dropout Prevention Model*

*Check & Connect.* This model uses a comprehensive approach toward promoting students' engagement. The model is currently being replicated and field-tested for youth with and without disabilities in grades K–12 in urban and suburban communities. Key features of the model are interrelated and include Relationship Building, Routine Monitoring of Alterable Indicators, Individualized and Timely Intervention, Long-Term Commitment, Persistence, Problem Solving, and Affiliation with School and Learning. (For more information, visit <http://ici.umn.edu/checkandconnect/model/default.html>.)



# The Effects of Co-Teaching on the Achievement of Eighth Grade Students With Learning Disabilities

Karen Culmo Fontana

**Abstract:** *The purpose of this study was to investigate the effectiveness of co-teaching on the academic achievement of eighth graders with learning disabilities (LD) who were at risk for school failure. The final averages of students with LD in co-taught classes when compared with their final averages as seventh graders were significantly higher than a similar comparison of averages of students with LD who did not attend co-taught classes. The students with LD who attended co-taught classes also demonstrated significant improvement in self-concept and math scores, but not writing scores as measured on standardized instruments. The teachers who co-taught during this investigation reported both an increased use of instructional adaptations and a satisfaction with collaborative teaching.*

Adolescents with learning disabilities spend the majority of their school time within the context of secondary education that places strong emphasis on content coverage, comparisons as well as competitions with others, and numerical grades (Deshler, Schumaker, & Lenz, 1984). High-stakes testing has increased the pace in a growing number of classrooms, and many students with learning disabilities (LD) may have a difficult time demonstrating their strengths in such an environment (Frase-Blunt, 2000). As a result, many students with LD are at an increased risk for school failure and for dropping out of school (Deshler, Schumaker, & Lenz, 1984). Students with exceptionalities may experience difficulty maintaining the emphasis on breadth of content over depth of content (Mastropieri & Scruggs, 2001). Students with LD may benefit from collaboration between teachers of general education and special education that is directed at increasing the likelihood for students' success and for keeping students in school (Reinhiller, 1996).

Time spent on collaboration between the teachers of general education and special education is an important contributor to student success (Reinhiller, 1996). Co-teaching has been described as one way to increase collaboration between these two parties and to also provide a means for students with LD to receive instruction in general education (Dieker & Murawski, 2003). According to the National Center for Restructuring and Inclusion (1995), the most often used service delivery model is co-teaching. Cook and Friend (1995) define co-teaching as "two or more professionals delivering substantive instruction to a diverse, or blended group of students in a single physical space" (p.1). Weiss and Brigham (2000) state that co-teaching is becoming an accepted form of collaboration, and teachers

using the model should be encouraged to gather ongoing quantitative and qualitative data on the model's strengths and weaknesses.

A few studies have begun to quantitatively investigate co-teaching arrangements on student outcomes. Investigations of co-teaching on academic outcomes on the elementary level have yielded mixed results (Banerji & Dailey, 1995; Saint-Laurent, Dionne, Giasson, Royer, Simard, & Pierard, 1998; Welch, 2000). Saint-Laurent et al. (1998) investigated the effects of an in-class service model on the academic achievement of students with and without disabilities and students at risk. The results show significant improvement in reading and math for the students with and without disabilities, but not the students with learning disabilities (LD) in the at-risk group. The results of this study seem to demonstrate that the effectiveness of pull-in models, such as co-teaching, for students with exceptionalities needs further investigation on the empirical level. Saint-Laurent et al. (1998) concluded that the empirical debate on in-class models should continue.

Using a co-teaching model in two different elementary schools, Welch (2000) collected pretest and posttest data on student academic achievement. Paired *t*-tests showed significant improvement in reading skills of the students without disabilities. There was improvement in reading skills of the students with disabilities, but this improvement was not statistically significant. The author concluded that the absence of a statistical significance in skills improvement was likely due to the small sample size.

Banerji and Dailey (1995) also investigated academic and affective gains in achievement of elementary students with and without disabilities receiving instruction in co-taught classrooms.

The majority of students with learning disabilities (LD) and normal achievement maintained 90 % or better in word accuracy. Although the gains of the students with LD were not statistically significant, the gains of the students with normal achievement were.

There have been fewer investigations into co-teaching on the secondary level. Tralli, Colombo, Deshler, and Schumaker (1996) designed the Strategies Intervention Model to provide three intervention categories to assist students with LD in overcoming learning difficulties stemming from the structural set-up of the secondary school. To put the intervention categories into practice, the teachers divided co-taught classrooms into two groups. The teachers and students reportedly found ways to generalize many of the strategies to other units. The authors did not investigate the use of the strategies on an empirical level.

In an empirical study on the effects of co-teaching on student outcomes in secondary classrooms, Boudah, Schumaker, and Deshler (1997) concluded that co-teaching does seem to have an effect on student outcomes, but not necessarily in the desired directions in all instances. They found that students with and without disabilities did use strategic skills at a significantly higher level than before the co-teaching intervention. Although the test scores of the students with low average achievement improved slightly, the scores of students with mild disabilities decreased slightly. The teachers in the experimental group were satisfied with the co-teaching model and expressed a willingness to continue its use.

Rea, McLaughlin, and Walther-Thomas (2002) examined the service models offered at two middle schools. They concluded that eighth grade students with disabilities who received instruction in co-taught classrooms earned higher report grades, had lower disciplinary referrals, and attended school more often than students who received only resource room services. The effectiveness of co-teaching on the secondary level appears to necessitate further examination.

Researchers are calling for more investigations into various aspects of collaborative teaching as a service delivery form and its effects on student achievement as compared to other service delivery models (Manset & Semmel, 1997; Marston, 1996). In addition to co-teaching, a commonly used service model is the resource room. Resource rooms can be referred to as pull-out models because the students with disabilities receive support from a professional outside of the classroom. The purpose of this investigation was to determine if student achievement was influenced by the co-teaching model of service delivery as compared to the resource room model of service delivery.

## Method

To add to the research base on a practical level, collaborative co-teaching arrangements were implemented to address the following questions: (a) Do students with LD receiving instruction in co-taught English and math classes earn higher grades than students with LD who receive only support in a resource room setting?; (b) Do students receiving instruction in co-taught English and math classes demonstrate an improvement in self-concept, writing and math skills as measured on standardized instruments?; and (c) Do teachers participating in collaborative co-teaching relationships demonstrate an increase in use of instructional strategies?

## Participants and Setting

The host school was a junior high school located in a small north-eastern city with a population of approximately 40,000 residents. The student population at the host school was approximately 758 students. Of this population, 686 (90.5 %) were Caucasian, 37 (4.9 %) were African-American, 21 (2.8 %) were Hispanic, 8 (1.1 %) were non-Hispanic origin and 6 (0.8 %) were Asian. Of the total student population, 48 % received free or reduced lunch.

In June 2002, the names of the students in the target population were randomly selected from a list containing the names of the students with LD who attended the host school. Parental permission and child assent were obtained from 17 out of 20 students who were initially selected. These students formed the target population.

To qualify as a student with LD in the host district, a student had to exhibit a minimum of a 15-point discrepancy between achievement and ability as measured on standardized instruments. All 17 students had been tested on the Wechsler Intelligence Scale for Children-Revised (WISC-R) and on the Woodcock-Johnson Psycho-Educational Battery-III (WJ-III). Their overall pretest grade equivalent mean in written language was 3.2 and 4.3 in math. A more detailed demographic description is presented in Table 1. The students in the target population comprised a convenience sample of students classified as students with LD.

Table 1

Variables	n	%	Mean	SD
Age			14.0	0.62
Gender				
Female	5	29.42		
Male	12	70.58		
Ethnicity				
Caucasian	13	76.47		
African-American	4	23.53		
Achievement Grade Scores <sup>a</sup>				
WJR Written Language			3.17	0.56
WJR Math			4.25	0.71
IQ scores <sup>b</sup>				
Full scale			91.12	8.12

<sup>a</sup> Grade scores derived from the Woodcock-Johnson Psycho-Educational Battery-III (WJ-III).

<sup>b</sup> Standard scores derived from the Wechsler Intelligence Scale for Children-R.

To compare the grades of students with LD who received instruction in co-taught classes with students with LD who received support in a resource room setting, 16 additional names were selected at random from the same list to form the control population. The students in the control population were not tested in a fashion similar to the target population as only grades were being compared, not improve-

ment in achievement areas. Due to inherent, ethical difficulties in the educational field, testing a group of students for comparison purposes only was deemed as inappropriate for this investigation. Permission was obtained to collect the necessary data.

Preliminary conversations were held with teachers who had expressed an interest in volunteering for this project. One teacher decided the comfort level was not there and withdrew the request to participate. Consent to participate in a co-teaching relationship for the 2002-2003 school year was obtained from three teachers, two math teachers and one English teacher. Final considerations were made in July 2002.

Procedure

In August 2002, the students in the target population were individually scheduled into English and math co-taught classrooms. The students in the control population were randomly assigned to English and math classes with only one teacher. Students in both the control and target populations also were scheduled to receive one period of educational support in a resource room classroom. The students in the target population received co-taught instruction in English and math for the entire school year. Common planning times were built into the four participating teachers' schedules.

During the same month, individual meetings were arranged for each of the three co-teachers to meet with the teacher of special education. These meetings provided time for discussions on parity, management, and responsibility issues. These discussions were critical for the start of a successful working relationship. The forms presented to the teachers served as points for discussion and as means to keep the meetings focused on what needed to be accomplished. The forms also served as an organizational tool in determining possible approaches for working in the three different classrooms. The pre-implementation discussions were vital components to actual implementation. Communication became an ongoing process as the teachers understood the complexity of teaching together could not be resolved after two meetings. It was decided that teaching together would likely be an iterative experience. The discussions concluded with the premise that communication would be a cornerstone to the building of positive relationships.

Results
Comparison of Grades

The first research question was designed to determine if the final English and math grades of students with LD in co-taught classrooms would be higher than the English and math grades of students with LD in English and math classes without a co-teacher. To determine equivalency of groups, one-way ANOVA was used to compare the means of the final English and math grades of the students as seventh graders using extant data. There was no significant difference between the English grades of the two groups (F(1, 31) = .130, p > .05). No significant difference was found in the math grades (F(1, 31) = .066, p > .05). This provides some assurance that the groups were equivalent at the start of the investigation.

In addition, to reduce the possible effect of the co-teachers subjectively grading the students in their co-taught classes in order to influence the outcomes, only objective measures were used to determine averages during the implementation period. Unit tests

comprised 60% of the students' grades, quizzes and in-class work 30%, and homework 10%.

Grades were then compared after approximately 38 weeks of school. The target students' grades were analyzed. A paired samples t-test was conducted to compare the mean of seventh grade English grades to the mean of eighth grade English grades. The mean on the seventh grade English grades was 68.5 (sd = 6.5) and the mean on the eighth grade English grades was 79.7 (sd = 11.4). A significant increase from seventh grade English final averages to eighth grade English final averages was found (t(16) = 5.38, p < .05). A paired samples t-test was conducted to compare the mean of seventh grade math grades to the mean of eighth grade math grades. The mean on the seventh grade math grades was 68.5 (sd = 8.4) and the mean on the eighth grade math grades was 77.7 (sd = 12.4). A significant increase from seventh grade math final averages to eighth grade math final averages was found (t(16) = 3.33, p < .05).

The grades of the students in the control group were compared next. A paired samples t-test was conducted to compare the mean of seventh grade English grades to the mean of eighth grade English grades. The mean on the seventh grade English grades was 69.7 (sd = 11.4) and the mean on the eighth grade English grades was 73.4 (sd = 8.0). A nonsignificant increase from seventh grade English final averages to eighth grade English final averages was found (t(15) = 1.02, p > .05). A paired samples t-test was conducted to compare the mean of seventh grade math grades to the mean of eighth grade math grades. The mean on the seventh grade math grades was 69.4 (sd = 12.9) and the mean on the eighth grade math grades was 74.3 (sd = 12.1). No significant difference from seventh to eighth grade averages was found (t(15) = 1.10, p > .05). The results of both groups are presented in Table 2.

Table 2
Paired t-tests on the Averages of the Students in the Target and Control Groups

Table with 7 columns: Group, N, Mean, SD, df, t, sig. It contains data for Target and Control groups across 7th and 8th grade English and Math averages.

Note: † one-tailed



## ***Effects on Individual Achievement***

To address the second research question, the students comprising the target population were individually tested in September 2002 and March 2003 on the Woodcock-Johnson-III Tests of Achievement (WJ-III) and the Student Self-concept Scale. Math and writing scores were obtained from the WJ-III and self-concept scores were obtained from the Student Self-concept Scale. Testing protocol was followed at each testing session, and testing rapport was easily established. The results are likely positive indicators of the students' performance levels at the time of testing.

The research design chosen for the measurement of the second research question was a one group pretest-posttest descriptive design (Campbell & Stanley, 1963). This method was chosen to compare changes in scores from pretest to posttest. The one group design was selected as the method with the greatest probability of demonstrating a change from pretest to posttest. The selection of a comparison group for a quasi-experimental investigation would have necessitated the testing of a group of students solely for investigative purposes.

The research design for the second question was composed of three dependent variables of writing, math, and self-concept scores and one independent variable of co-taught instruction which was measured as a pretest group and a posttest group to assess change over time. The hypothesis predicted an increase in scores due to the intervention; consequently, reported significant levels are one-tailed.

One-way MANOVA was calculated examining the effect of co-teaching grouping on writing, math, and self-concept scores. A significant effect was found ( $\Lambda(3, 30) = 2.38, p < .05$ ). Follow-up univariate ANOVAs indicated that writing scores were not significantly influenced by co-teaching grouping ( $F(1, 32) = .710, p > .05$ ). Math and self-concept scores were significantly improved by co-teaching grouping ( $F(1, 32) = 5.02, p < .05$ ) and ( $F(1, 32) = 4.97, p < .05$ ), respectively.

Statistical analysis of the data from the students' writing scores demonstrated a nonsignificant improvement in scores from pretest to posttest. The critical value of  $p < .05$  was not obtained. It could be argued that students with LD generally do not improve their writing skills in deficit areas to such a degree over an eighth-month time period (Wong, Butler, Ficzer, & Kuperis, 1997). Although writing skills and strategies were stressed throughout the investigation in an effort to improve writing scores, a significant improvement was not demonstrated.

## ***Use of Instructional Adaptations***

The third research question was investigated through the comparison of responses to an informal survey form completed before co-teaching arrangements began and at the conclusion of co-teaching. The survey is included as an appendix. Only two of the ten adaptations were used on a consistent basis by all three co-teachers. The teachers regularly presented information in a visual and auditory manner and they generally provided a weekly check in with the students on the status of grades. At the conclusion of implementation, two of the teachers were using eight instructional strategies on a regular basis. Without a second teacher in the classroom, they felt modifying in-class work and providing support to small groups during class time would be difficult to manage. But, the teachers commented

that the instructional strategies they had used during the 2002-2003 school year were likely to be integrated into their teaching routines because the teachers had noted the positive benefits in using such adaptations.

The third teacher had indicated only an increase in communication with both students and parents, and could not justify the time needed to provide instruction in study skills or to provide additional instructional support during class time. This teacher preferred teacher led instruction over peer tutoring or cooperative grouping.

## **Discussion**

The teachers used a variety of co-teaching methods throughout the investigation. One teacher-one assist, supportive teaching, and complementary teaching were the models most often used (Villa, Thousand, & Nevin, 2004). A tentative schedule of co-teaching methods was outlined during the summer meetings both to attempt to match methods with instructional units and for the purpose of reminding the teachers of the importance of varying instructional presentation in a co-taught classroom. The schedule was modified throughout the school year as the situation required. The varying of co-teaching models was successful in three of the four classes. In one of the classes, the teacher defaulted to the one teacher-one assist method as the most used model. Suggestions were made during formal and informal conferences concerning the teacher of special education's willingness and desire to attempt various co-teaching models, and the teacher would assent, but generally would not follow-through in the classroom environment.

An occurrence, as happened in one of the co-taught classes, could occur in other co-taught classes on the secondary level. Educators of students with disabilities interested in the co-teaching model need to be aware that a philosophy stated by a teacher of content could change as the year progresses. If the teacher of special education is assigned to a content level teacher's class for the entire year, it is the teacher of students with disabilities that is likely going to have to adjust to the change in the co-teacher's observed philosophical perspective. It appeared after four months of implementation that the pattern of the teachers of content directed the pattern of the teacher of special education.

It is a possibility, based on experiences in one of the classes, that the teacher of special education might have to adapt to the patterns of the co-teacher. Adjustments and/or suggestions may need to be made based on an intuitive understanding of the other teacher's actual belief system. It was felt that pushing too hard in one direction could lead to irreversible conflict and not pushing hard enough in another direction could lead to the needs of the students not being met at the highest level possible. This is an issue that is likely to be an ongoing concern in co-taught classes on the secondary level.

As a co-teacher on the secondary level, it is also difficult to obtain parity with the teacher of content. The teacher of students with disabilities is often required to move from classroom to classroom and, as such, it can be difficult to attain and maintain personal space in another teacher's classroom. It is important that the co-teacher have a separate desk or work area to provide an obvious message to anyone observing the classroom that two teachers work inside the classroom.

## Recommendations

The teachers involved in this investigation received little initial or continuing support throughout the school year. Central Office administrators gave permission for the co-teaching arrangement, but offered little in support, such as initial or follow-up training. Building administrators gave approval to the arrangement and provided little involvement or encouragement thereafter. The scheduling concerns were worked out through the assistance of the guidance personnel who were able to finalize hand scheduling the target population into co-taught classes. Their assistance was critical and essential in this investigation. The arrangements would not have worked so effectively without their support. Teachers interested in co-teaching will likely need to gain support of the guidance personnel. Overall, the support for this investigation came from the teacher level. For future initiatives to be successful, it would be recommended that support from higher levels be provided.

The teachers involved in this investigation were volunteer participants. Forced participation holds the possibility of making both teachers feel uncomfortable, which could potentially inhibit student progress as well. Pre-implementation discussions are critical components to successful arrangements. Even with pre-implementation discussions, educators of students with disabilities interested in the co-teaching model need to be aware that a philosophy stated by a teacher could be different from actual practice.

Information pertaining to co-teaching was not provided to the co-teachers from Central Office or building administrators. Obtaining and sharing information were responsibilities of the co-teachers. Materials were adapted from sources or created to fit individual situations. Training or participation in workshops would likely have been beneficial. Initial training could have assisted the teachers in handling philosophical differences and in trying new ideas.

With the absence of ongoing support from administrators, there was scant encouragement to communicate the progress of the co-teaching arrangements. Data on student progress and attendance were plotted on a weekly basis for comparison purposes. The data were shared with the co-teachers, but the information was not shared on a wide-scale basis. Materials developed for the classes were shared with other teachers and, conversations at content-level building meetings often mentioned the successes the teachers were experiencing in the co-taught classes. Dissemination of the results, successes, and problems was not requested and as a result was not shared in a systematic manner within the district.

Conflict was experienced in all four co-taught classes. The conflicts were kept at a minimal level and generally centered around methods of presentation and adaptations for students. The weekly planning meetings were useful in addressing problem areas before they became major conflicts. The CLASP model (Voltz, Elliott, & Harris, 1995) was a tool that was utilized for conflicts not resolved with the weekly planning forms. It should be added that the teacher of special education might feel the need to compromise more often because of the structure of co-teaching arrangements on the secondary level. On the secondary level, the teacher of special education enters the content level class and might need to make adjustments based on the needs of the teacher of content. The recommendations are summarized in Figure 1.

Figure 1. Recommendations for successful collaborative co-teaching arrangements.

### Recommendations for Successful Collaborative Co-Teaching Arrangements

**Recommendation One**—*Co-teaching arrangements need support on the district, building, and classroom level.*

Support from all three levels demonstrates a commitment to the potential benefits co-teaching offers to all involved (Idol, 1997).

**Recommendation Two**—*Participation in co-teaching arrangements should always be voluntary.*

Co-teachers need to be philosophically similar on many levels. Forced participation is unlikely to produce a conducive working environment for the teachers or the students (Walther-Thomas, 1997).

**Recommendation Three**—*More training would be beneficial to the teachers.*

Initial training could be offered to interested teachers on how to implement a co-teaching arrangement. Teachers with experience in co-teaching could benefit from training targeted to specified areas of need (King-Sears & Cummings, 1996).

**Recommendation Four**—*Successes in co-teaching arrangements should be communicated to others.*

The successes and challenges of co-teaching should regularly be communicated to others to foster an open dialogue on student and teacher outcomes stemming from the potentialities in co-teaching arrangements (Gerber & Popp, 2000).

**Recommendation Five**—*Successful co-teachers need to remember there will be conflict between each other.*

Tension is inevitable when two teachers share classroom responsibilities. Focus on the small successes and be patient and honest with each other (Cook & Friend, 1995).

## Conclusion

Some positive results were obtained from the data collected in this study. There was significant improvement in the final averages of the target population when compared with their final averages as seventh graders. There was not a significant improvement in similar averages of the control population. The students in the target population demonstrated significant improvement in self-concept and math scores as measured on standardized instruments. There was no significant improvement in writing scores. The co-teachers involved in this investigation were generally pleased with the co-teaching arrangement and are continuing their participation in collaborative teaching situations. The four teachers demonstrated an increased use and understanding of instructional adaptations. However, the preferred instructional adaptations were the ones which seemed to hold the most benefit for the entire class rather than for a small group of students or an individual student. This preference has been demonstrated in previous research (Scott, Vitale, & Masten, 1998).

The results need to be interpreted within the limitations of the study. The convenience sample size was small and was confined to a limited geographical area. Future research should expand the parameters of both sample size and geographical area. Future research will also need to consider scheduling constraints and the emphasis placed on content coverage when investigating co-teaching arrangements on the secondary level. Studying the effects of various co-teaching models on students' academic performance should also be investigated. The attitudes of students with and without disabilities receiving instruction in co-taught classes should be obtained and reported. The teachers involved in this investigation voluntarily agreed to participate. The results cannot be generalized to nonvoluntary co-teaching arrangements. Although the limitations of the study need to be considered, this investigation demonstrated potential benefits co-teaching can offer to students and teachers. It will be the promise of future research to build upon the limited results presented here.

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## Appendix

### *Recording Form for Questions Related to Instructional Adaptations*

Do you feel knowledgeable about the use of instructional techniques for working with students with exceptionalities?

Yes

No

Do you feel knowledgeable about the use of behavioral and management techniques for working with students with exceptionalities? Yes No

Do you use these strategies on a weekly basis:

- |  |     |    |
|--|-----|----|
| 1. present information in a visual and auditory manner   | Yes | No |
| 2. weekly check with each student on assignments completed/owed  | Yes | No |
| 3. weekly check of notebooks   | Yes | No |
| 4. weekly communication with each student on status of grades  | Yes | No |
| 5. modify in-class assignments   | Yes | No |
| 6. modify homework assignments   | Yes | No |
| 7. use of peer tutoring/ cooperative learning groups   | Yes | No |
| 8. teaching students skills such as test-taking, note-taking, previewing, reviewing, etc.                                | Yes | No |
| 9. communication with parents regarding ongoing projects   | Yes | No |
| 10. provide support and extra instructional assistance to individuals or small groups during class on an as-needed basis | Yes | No |

What do you think are the main obstacles to employing these strategies on a regular basis?



# Self-Determination As a Dropout Prevention Strategy

Dalun Zhang and Brittany Hasto Law

**Abstract:** Successful completion of high school education is a major milestone for every adolescent because it marks the transition from adolescence to young adulthood. However, a significant number of students, especially those with disabilities, drop out of school before completing this important milestone. There are many factors related to dropout. One of these factors has to do with students' lack of self-determination skills. This paper (a) reviews and examines the results of existing research that provides empirical links between student self-determination and in-school and post-school outcomes, and (b) reviews and recommends practices that promote student self-determination.

In the 21st century, preparing a student for future endeavors means getting a high school education. Completing high school is considered essential for accessing further training, education, or the labor force (Dunn, Chambers, & Rabren, 2004); is a major milestone for every adolescent because it marks the transition from adolescence to young adulthood (Thorin & Irvin, 1992; Whitney-Thomas & Hanley-Maxwell, 1996); and is a point in time when young people make decisions about their future and begin in earnest to take on the trappings of adult life (Buchmann, 1989; Pallas, 1993). Whether or not a high school student can make a successful transition from adolescence to adulthood directly affects his or her quality of life as an adult (Halpern, 1993). Consequently, a major developmental task for adolescents is to expand personal independence; prepare for employment, postsecondary education, and community living; and develop new relationships with peers and community members (Powers, et. al., 1996). The purpose of education for all students (with and without a disability) is, therefore, to facilitate the successful completion of developmental tasks and produce responsible, self-sufficient citizens who possess the self-esteem, initiative, skills, and wisdom to continue individual growth and pursue knowledge (Sarason, 1990). However, for many high school students with disabilities, the transition process often encounters great challenges because they face the confounding factors of dealing with (a) physical, cognitive, or behavioral issues associated with their disability; (b) social relationship issues and possible stigma resulting from disability status; (c) heightened concern of parents and family members related to increased independence of the adolescent; and (d) the inability of systems (e.g., schools, employers, agencies) to adequately accommodate the needs of adolescents with disabilities (Field, Hoffman, & Posch, 1997). These factors, learned helplessness, and other people's stereotype of perceptions pose great challenges

to these adolescents' natural development. These challenges and difficulties faced by students with disabilities require education to play a more critical role in facilitating task development and preparing for adulthood (Wehmeyer, 1992).

To help students with disabilities overcome their difficulties, our society offers special education students with individualized education programs. The purpose of offering special education is to develop unique programs that meet the special needs of students with disabilities; to provide students with teachers who understand disabilities and who can utilize effective teaching methods; to provide more resources and supports; and ultimately, to make students successful contributors and meaningful members of our society. Unfortunately, many students with disabilities do not take advantage of the opportunities that special education provides them and instead wind up dropping out of school.

Dropout is defined by Lehr (2004) as the total number of students that were enrolled at some point in the reporting year that were not enrolled at the end of the reporting year, and did not leave school due to a move or other similar factors. Considering this definition of dropout, the number of all students who drop out is about 14%. However, the dropout rate for students with disabilities is almost twice that of students without disabilities (Thurlow, Sinclair, & Johnson, 2002; Dunn, Chambers, & Rabren, 2004; Scanlon & Mellard, 2002). Students with mild disabilities, particularly students with emotional or behavioral disorders and learning disabilities, have the highest rates of dropout at 51% and 27% respectively (Lehr, 2004). These students who drop out generally experience negative outcomes such as unemployment, underemployment, and incarceration (Thurlow, Sinclair, & Johnson, 2002).

With the standards-based reform efforts, raising graduation rates for all students in the United States has been a priority because school dropouts cost the nation anywhere from 60 to 228 billion dollars



a year in welfare, unemployment expenditures, lost revenue, and crime prevention (Dunn, Chambers, & Rabren, 2004). Since the No Child Left Behind Act, which requires that schools track and report the students who graduate with a regular diploma in four years, dropout prevention has become a national priority (Lehr, 2004).

There are many factors related to dropout. Students may drop out for interpersonal reasons, habitual truancy, disruptive behavior, family turmoil including low family expectations, sociocultural disadvantage, or their disability (Repetto, Pankaskie, De Palma-Hankins, Schwartz, & Perry, 1997). The National Longitudinal Transition Study (Wagner, 1996) showed that parents of students with emotional disabilities reported that most of their children had dropped out because of their dislike of school (32 %) or because of behavior problems (27 %). These factors are multifaceted in nature and require varied dropout prevention strategies. Dunn, Chambers, and Rabren (2004) have identified three key implications to student retention: a.) teachers' understanding of the impact of their behavior on students; b.) students' willingness to make personal changes (self-determination); and c.) secondary programs and policies. This paper attempts to address the second implication (students' willingness to make personal changes) and specifically focuses on student self-determination. The purposes of the paper are (a) to review and examine the results of existing research that provides empirical links between student self-determination and in-school and post-school outcomes and (b) to review and recommend practices that promote student self-determination.

### ***Empirical Research on Self-Determination and Dropout Prevention***

Self-determination has received increased attention from researchers in the field of special education and disability services in the past 15 years (Algozzine, Browder, Karvonen, Test, & Wood, 2001; Wehmeyer, 1997). In a position statement of the Division on Career Development and Transition, Field, Martin, Miller, Ward, and Wehmeyer (1998a) emphasize the importance of self-determination for individuals with disabilities. Self-determination is defined by Wehmeyer (1996) as "acting as the primary causal agent in one's life and making choices and decision regarding one's quality of life free from undue external influence or interference" (p.24). Self-determination characteristics include choice-making, decision-making, problem-solving, goal-setting and attainment skills; self-management, self-advocacy, self-efficacy, self-awareness, and self-knowledge (Wehmeyer & Schwartz, 1997). When applied to education, self-determination revolves around fostering an interest in students to learn, value education, and have confidence in their strengths. Self-determination necessitates the student's choice to initiate and regulate behavior rather than environmental events that determine his or her action (Hardre & Reeve, 2003). A number of research studies have established a strong relationship between student level of self-determination and the attainment of more positive adult outcomes for transitioning youth (Zhang, Wehmeyer, & Chen, 2005).

Hardre and Reeve (2003) used self-determination theory and tested a motivational model to explain the conditions under which rural students formulate their intentions to persist in, versus drop out of, high school. The model argues that motivational variables

underlie students' intentions to drop out and that students' motivation can be either supported in the classroom by autonomy-supportive teachers or frustrated by controlling teachers. Students become engaged in school-related activities when the instruction is interesting, relevant, and works along with their strengths. Environments that support students' needs for competence and self-determination are considered autonomy-supportive environments. For instance, when a student felt that his or her needs were being neglected and became frustrated, the student was more likely to think about dropping out. To examine the theory, Hardre and Reeve analyzed questionnaire data from 483 rural high school students and found that the provision of autonomy support within classrooms predicted students' self-determined motivation and perceived competence. These motivational resources, in turn, predicted students' intentions to persist, versus drop out, and they did so even after controlling for the effect of achievement. Because self-determination theory is a way to foster positive classroom atmosphere and influence students' intentions to drop out or persist, Hardre and Reeve (2003) suggest that a teacher develop students' internal motivation by supporting their interest rather than controlling behavior. In this classroom situation, students are more likely to value school and less likely to begin thinking about dropping out. As motivation is nurtured, it becomes a student-owned internal resource that will contribute greatly to the student's decision to persist in school.

McMillian and Reed (1994) found that some students could be classified as at risk, but developed characteristics and coping skills that enabled them to succeed. They termed these students as "resilient" and identified some common characteristics that these individuals possess. The most common characteristics included high intrinsic motivation and internal locus of control; high educational aspirations; desire to succeed, to be self-starting, and to be personally responsible for their achievements; a strong sense of self-efficacy; to have clear, realistic goals; and to be optimistic about the future. These characteristics are also characteristics of self-determination. Similarly, Dunn, Chambers, and Rabren (2004) found that if students perceive their high school experience as meaningful to their future goals, they will be more likely to stay in school.

Repetto, Pankaskie, De Palma-Hankins, Schwartz, and Perry (1997) identified several themes in dropout prevention programs. One of the themes is Program Friendliness and it specifically supports the characteristics of self-determination. Program Friendliness includes effective practices that focus on methods to ensure that programs meet the needs of students and are easy for students to access. Program Friendliness services provide support to youth advocacy while the student is encouraged to set goals and manage problems through direct instruction. A program included in the Program Friendliness theme is *Check and Connect*, which was developed in Minneapolis. Research findings from this project show significant evidence of treatment effects: Only 9 % of the students who had received the intervention through ninth grade dropped out of school compared to 30 % of the students who only received the services in seventh and eighth grade. Forty-six percent (46 %) of the students who received the services through ninth grade were on track to graduate in four years, while only 20 % of other students were on track (Thurlow, Sinclair, & Johnson, 2002).

Wehmeyer and Schwartz (1997) conducted a follow-up study of youth with mental retardation or learning disabilities. They collected data prior to their exit from high school and one year after exit. Findings show that individuals with higher levels of self-determination were more likely to have experienced a greater number of positive adult outcomes, including a higher likelihood of being employed and earning more per hour than those who were not self-determined. Former self-determined students were more likely to be employed, express the preference to live outside the family home, and have a savings or checking account, and those students who earned the most had higher self-determination scores. With these positive outcomes, self-determination has been identified as a critical outcome of the transition process for students with disabilities. Wehmeyer and Schwartz (1997) suggest increasing student participation in educational planning and decision making as a result of the abilities and attitudes associated with self-determination. Although it may be challenging for educators to allow students to have control over the curriculum, student-directed work on self-awareness, leadership, and self-advocacy will ultimately be more effective in promoting those skills than will teachers providing instruction based on what they presume to be students' needs (Pocock, et. al., 2002).

Wehmeyer & Palmer (2003) published a follow-up study of 94 high school completers one and three years after exiting school. They found individuals in the high self-determined group fared much better than individuals in the low self-determined group in six out of eight adult living areas one year after they left school and fared better in all eight adult living areas three years after they left school. One year after school, more individuals in the high self-determined group paid their phone bills and groceries and had a bank account; at three years after school, even more individuals in the high self-determined group did these things. In addition, more individuals in the high self-determined group paid their rent and utilities, and enjoyed better overall benefits at three years after school. They also had better specific benefits in vacation, sick leave, and health insurance.

### ***Practices That Promote Self-Determination***

Given the strong link between self-determination and individual success, self-determination skills are essential for students with disabilities. Recent research has indicated that, in order for students with disabilities to acquire and exercise self-determination skills, students and their teachers and parents need to make sustained efforts (Zhang, Katsiyannis, & Zhang, 2002). According to Sands and Doll (1996) and Ward (1988), for high school students to become self-determined and to take control of their transition process, the fostering of self-determination should start in early childhood. Both teachers and parents need to engage in daily practices that foster self-determination skills.

Field, Martin, Miller, Ward, and Wehmeyer (1998b) listed methods and procedures that promote self-determination in early childhood years, early elementary ages, late elementary ages, and secondary ages. Zhang, Katsiyannis, and Zhang (2002) recommend that teachers engage in these recommended practices on a daily basis to foster student self-determination. Self-determination knowledge and skills need to be supported at all levels in the school organization and should be incorporated into a variety of subject areas. Students should be provided with many opportunities to express preferences and make

choices and subsequently experience outcomes. These opportunities should be provided in natural settings, when possible. The development of self-determination skills should be a major part of the education of a young person with disabilities. One of the best approaches is to involve students with disabilities in their IEP/transition planning meetings, during which they learn and practice self-determination skills in relation to their own educational and post-school life planning (Harrison, Arnold, & Love, 1997; Zhang & Stecker, 2001).

For most students with disabilities, systematic and direct instruction is needed in order for them to develop and practice self-determination skills. Educators can help to empower self-determination through direct instruction of skills associated with self-determination, by offering students choices and respecting the choices that they make, and by reinforcing their efforts to make personal decisions. To facilitate direct and formal instruction of self-determination skills to students with disabilities, numerous curricula have been developed in the past decade. These curricula focus on the major skills associated with self-determination and develop strategies to enhance these skills by students with disabilities. Field, Martin, Miller, Ward, and Wehmeyer (1998b) identified 35 curricula that were designed for this purpose; whereas Test, Karvonen, Wood, Browder, and Algozine (2000) found 60 curricula and 675 other resources. Some of the popular self-determination instructional materials are summarized in Table 1 (on the following page).

Schools can infuse the self-determination skills covered in these curricula into content instruction or adopt a stand-alone self-determination curriculum. Principals and special education teachers are encouraged to use strategies provided by Test et al. (2000) in choosing a self-determination curriculum. Test et al. (2000) suggest considering the following questions when choosing a curriculum: Are the materials age appropriate? Are they designed for mild, moderate, or severe disabilities? What types of materials are provided? Are lesson plans well developed? Were the materials field-tested? Is there an assessment tool? What are the costs? As a leader in curriculum and instruction in the school, principals can use these questions to guide teachers in selecting and implementing a self-determination curriculum.

Self-determination must not only be facilitated by the educational system, but also within the family structure. Recent research studies found that the majority of families with a child with a disability do not engage in activities that foster self-determination skills (Zhang, Katsiyannis, & Zhang, 2002; Zhang, Wehmeyer, & Chen, 2005). Part of the reasons for families' lack of engagement in self-determination fostering activities has to do with their lack of information and directions. Efforts have to be made to provide directions for families to engage in recommended practices. Zhang, Katsiyannis, & Zhang (2002) recommend that families use practices described in the instrument of their study to foster children's self-determination skills. To help their child to be more self-determined, families should include their child in making decisions that affect the whole family. Parents can allow and encourage their children to make basic decisions that directly affect the students themselves, and encourage their child to perform household chores that are within their capabilities (Harrison, Arnold, & Love, 1997).

Table 1

## A Summary of Popular Self-Determination Instructional Materials

McAlonan, S. J., & Longo, P. A. (1996). <i>A maze to amaze: Transition Planning for youth with disabilities</i> . Colorado Department of Education, Special Education Services Unit. Denver, CO.	<ul style="list-style-type: none"> <li>• Personal self-advocacy</li> <li>• Goal setting</li> <li>• Person-centered planning</li> <li>• Employment</li> <li>• Education</li> <li>• Housing and Daily living</li> <li>• Personal</li> <li>• Community</li> </ul>	<p><b>Ages:</b> Middle/junior high school, Senior high school</p> <p><b>Students:</b> Non-categorical</p> <p><b>Other:</b> Facilitators, Educators</p>	<p>Teacher instruction or training</p> <p>Instructional video, replicable worksheets or masters, three-ring binder</p>	<p>Colorado Department of Education, Special Education Services Unit 303-866-6799</p> <p>Price: \$50.00</p>
Martin, J. E., Marshall, L. H., Maxson, L., & Jerman, P. (1996). <i>Choicemaker self-determination curriculum: Self-directed IEP</i> . Sopris West, Inc.	<ul style="list-style-type: none"> <li>• Self-awareness</li> <li>• Personal self-advocacy</li> <li>• Goal setting</li> <li>• Self-efficacy</li> <li>• Self-evaluation</li> <li>• Person-centered planning</li> <li>• Making choices and decisions</li> <li>• Employment</li> <li>• Education</li> <li>• Housing and daily living</li> <li>• Personal</li> <li>• Community</li> </ul>	<p><b>Ages:</b> Middle/junior/high school, adapted to upper elementary</p> <p><b>Students:</b> Non-categorical, mild or moderate learning disabilities or developmental disabilities, adaptations may be made for students who can't read or write</p>	<p>Assessment tool instructional tool</p> <p>Replicable worksheets or masters, consumable written materials, awareness-building video, instructional video, guide with background and overview, guide with directions for facilitating, illustrations representing the crucial steps</p>	<p>Sopris West, Inc. 1-800-547-6747</p> <p>Price: \$120.00</p>
Kurland, W., Simms, J.R., Young, K.H., & Beckwith, R.M. (1994). <i>Lessons for Living: A self-determination curriculum for transitional aged students</i> . James Stanfield Publishing Co.	<ul style="list-style-type: none"> <li>• Self-awareness</li> <li>• Personal self-advocacy</li> <li>• Goal setting</li> <li>• System self-advocacy</li> <li>• Self-evaluation</li> <li>• Person-centered planning</li> <li>• Wmployment</li> <li>• Wducation</li> <li>• Housing and daily living</li> <li>• Personal</li> <li>• Community</li> <li>• Making choices and decisions</li> </ul>	<p><b>Ages:</b> Senior high school</p> <p><b>Students:</b> Without disabilities, with mild or moderate behavioral or emotional disabilities</p> <p><b>Other:</b> Families</p>	<p>Instructional tool</p> <p>Replicable worksheets or masters, Instructional Video, Guide with background and overview, guide with directions for facilitating, three ring binder</p>	<p>James Stanfield Publishing Co. 1-800-421-6534</p> <p>Price: \$149.00</p>
Halpern, A. S., Herr, C. M., Wolf, N. K., Lawson, J. E., Doren, B., & Johnson, M.C. (2000). <i>Next S.T.E.P.: Student transition and educational planning</i> . (2 <sup>nd</sup> Ed.). Pro-ed. Publishing. Austin, TX.	<ul style="list-style-type: none"> <li>• Self-awareness</li> <li>• Self-efficacy</li> <li>• Goal setting</li> <li>• Self-evaluation</li> <li>• Adjustment</li> <li>• Person-centered planning</li> <li>• Making choices and decisions</li> <li>• Employment</li> <li>• Education</li> <li>• Housing and daily living</li> <li>• Community</li> </ul>	<p><b>Ages:</b> Senior high school, 18–21-years-old</p> <p><b>Students:</b> Without disabilities, non-categorical, at risk</p> <p><b>Other:</b> Families</p>	<p>Instructional tool Assessment tool</p> <p>Replicable worksheets or masters, consumable written materials, awareness building video, instructional video, activity cards, games, guide with background and overview, guide with directions for facilitating</p>	<p>Pro-ed Publishing 1-800-897-3202</p> <p>Price: \$169.00</p>



Table 1, (continued)

Citations	Major Focuses	Targeted Population	Major Features	Availability
Martin, L. & Carter, D. (1994). <i>Self-Determination: The road to personal freedom</i> . Protection and Advocacy System. Albuquerque, NM.	<ul style="list-style-type: none"> <li>• Self-awareness</li> <li>• Goal Setting</li> <li>• Community</li> <li>• Person-centered planning</li> <li>• Personal</li> </ul>	<p><b>Ages:</b> Senior high school</p> <p><b>Students:</b> Non-categorical, mild disabilities</p>	<p>Instructional tool</p> <p>Replicable worksheets or masters, guide with background and overview, Guide with directions for facilitating, Three-ring binder</p>	<p>Protection and Advocacy System (505)-256-3100</p> <p>Price: \$35.00</p>
Field, S. & Hoffman, A. (1996). <i>Steps to self-determination: A curriculum to help adolescents learn to achieve their goals</i> . Pro-Ed. Publishing Company. Austin, TX.	<ul style="list-style-type: none"> <li>• Self-awareness</li> <li>• Personal self-advocacy</li> <li>• Goal setting</li> <li>• Self-evaluation</li> <li>• Adjustment</li> <li>• Employment</li> <li>• Housing and daily living</li> <li>• Personal</li> <li>• Community</li> <li>• Conflict resolution and negotiations</li> </ul>	<p><b>Ages:</b> Middle/junior/senior high school, 18-21 years old</p> <p><b>Students:</b> Without disabilities, Non-categorical</p> <p><b>Other:</b> Families, friends</p>	<p>Instructional tool</p> <p>Assessment tool</p> <p>Replicable worksheets or masters, consumable written materials, overheads, guide with background and overview, guide with directions for facilitating, A pre-post assessment tool</p>	<p>Pro-Ed Publishing Company 1-800-897-3202</p> <p>Price: \$98.00</p>
Carter, L. (1991). <i>Transition issues curriculum: A curriculum for students in special education with moderate needs to plan and prepare for their own transition</i> . Colorado State University Occupational and Educational Studies. Denver, CO.	<ul style="list-style-type: none"> <li>• Self-awareness</li> <li>• Person-centered planning</li> <li>• Goal setting</li> <li>• Making choices and decisions</li> <li>• Employment</li> <li>• Education</li> <li>• Housing and daily living</li> <li>• Personal</li> <li>• Community</li> <li>• Self-evaluation</li> </ul>	<p><b>Ages:</b> Middle/junior/senior high school</p> <p><b>Students:</b> With mild or moderate learning disabilities or developmental disabilities, with mild or moderate behavioral or emotional disabilities</p>	<p>Instructional tool</p> <p>Replicable worksheets or masters, games, guide with background and overview, and guide with directions for facilitating, spiral bound</p>	<p>Colorado State University Occupational and Educational Studies</p> <p>Price: Less than \$100.00</p>
Kelchner, K. & Wehmeyer, M. (1995). <i>Whose future is it anyway? A student-directed transition planning process</i> . ARC National Headquarters U.S. Dept. of Education, Office of Educational Research and Improvement, Educational Resources Information Center. Arlington, TX.	<ul style="list-style-type: none"> <li>• Person-centered planning</li> <li>• Personal self-advocacy</li> <li>• System self-advocacy</li> <li>• Self-efficacy</li> <li>• Employment</li> <li>• Self-evaluation</li> <li>• Education</li> <li>• Housing and daily living</li> <li>• Self-awareness</li> <li>• Making choices and decisions</li> <li>• Goal setting</li> <li>• Personal</li> <li>• Community</li> </ul>	<p><b>Ages:</b> Senior high school, ages 13-21, middle/junior high school</p> <p><b>Students:</b> With mild or moderate cognitive developmental disabilities, with mild or moderate learning disabilities or developmental disabilities</p>	<p>Instructional tool</p> <p>Guide with background and overview, guide with directions for facilitating, consumable written materials, soft-sided book</p>	<p>ARC National Headquarters U.S. Dept. of Education, Office of Educational Research and Improvement, Educational Resources Information Center 888-368-8009</p> <p>Price: \$37.75</p>

Table 1, (continued)

Citations	Major Focuses	Targeted Population	Major Features	Availability
Marshall, L. H, Martin, J. E., Maxson, L., Miller, T. L., Hughes, W., McGill, T., & Jer-man, P. (1999). <i>Take action: Making goals happen</i> . Sopris West, Inc. Longmont, CO.	<ul style="list-style-type: none"> <li>• Self-efficacy</li> <li>• Goal setting</li> <li>• Self-evaluation</li> <li>• Adjustment</li> <li>• Making choices</li> <li>• Employment</li> <li>• Education</li> <li>• Housing and daily living</li> <li>• Personal</li> <li>• Community</li> </ul>	<p><b>Ages:</b> Middle/junior/senior high school</p> <p><b>Students:</b> Non-categorical, without disabilities</p>	<p>Assessment tool, instructional tool</p> <p>Replicable worksheets or masters, instructional video, guide with back-ground and overview, guide with directions for facilitating</p>	<p>Sopris West, Inc. 1-800-547-6747</p> <p>Price: \$95.00</p>
Brolin, D. E. (1992). <i>Life-centered career education: Com-petency units for personal-social skills</i> . Council for Exceptional Children. Reston, VA.	<ul style="list-style-type: none"> <li>• Self-awareness</li> <li>• Personal self-advocacy</li> <li>• Goal setting</li> <li>• Making choices</li> <li>• Employment</li> <li>• Education</li> <li>• Housing and daily living</li> <li>• Personal</li> <li>• Community</li> </ul>	<p><b>Ages:</b> Middle/junior/senior high school, 18-21 years old</p> <p><b>Students:</b> Non-categorical, at risk</p> <p><b>Other:</b> Adults</p>	<p>Assessment tool, instructional tool</p> <p>Replicable worksheets or masters, games, guide with background and overview, guide with directions for facilitating, ten three-ring binders</p>	<p>Council for Exceptional Children 888-232-7733</p> <p>Price: \$30.00</p>
Harris, C. D. (1993). <i>Project partnership: A model program for encouraging self-determina-tion through access to the arts</i> . VSA Educational Services U.S. Department. of Education, Office of Educational Research and Improvement, Educational Resources Information Center. Washington, DC	<ul style="list-style-type: none"> <li>• Self-awareness</li> <li>• Adjustment</li> <li>• Goal setting</li> <li>• Self-evaluation</li> <li>• Making choices and decisions</li> <li>• Employment</li> <li>• Personal</li> </ul>	<p><b>Ages:</b> Senior high school</p> <p><b>Students:</b> Not specified</p>	<p>Instructional tool, assessment tool, guide with background and review, guide with direc-tions for facilitating, many art lesson ideas, aware-ness-building video that shows various artists taking about self-determi-nation, three-ring binder</p>	<p>IVSA Educational Services, U.S. Dept. of Education, Office of Educational Research and Improvement, Educational Resources Information Center. Washington: DC 202-401-2000</p> <p>Price: \$ n/a</p>

## Conclusion

Raising graduation rates for all students in the United States has been a national priority since the No Child Left Behind Act. The focus has been on the many factors related to dropout, from interpersonal reasons, habitual truancy, disruptive behavior, family turmoil including low family expectations, sociocultural disadvantage, or their disability. Many programs that have used some part of self-determination have had successful results in dropout. Overall, students who are self-determined have a better chance at positive outcomes as adults. Educators can make significant contributions to dropout prevention by building classroom atmospheres that promote student involvement in education and by providing direct self-determination instruction to students with disabilities. Teachers must find ways to support students’ perceptions of self-determination and competence through connecting to students’ interests, lives, and strengths.

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# High School Students' Perceptions Regarding Truancy and Related Delinquent Behaviors: Impact on Students With Special Disabilities

Carrie Butler, Dianne Reed, and Dr. Rebecca Robles-Piña

**Abstract** This study surveyed the perceptions of 941 high school students—33% were students with disabilities—regarding truancy and related topics, such as drug use, and violence. Further, students were surveyed about prevention strategies to decrease truancy, drug use, and violence. The findings of this exploratory study suggest that truancy and drug use reports were similar to a national report. Statistics related to violence, however, were higher for weapons brought to school than those reported in a national survey. Students' perceptions on effective prevention and intervention strategies suggest that (a) harsher sentences are needed to decrease drug use, (b) both harsh sentences and increased student involvement are needed to decrease violence, and (c) increased student involvement is needed to decrease truancy. Implications from findings were applied to students with disabilities.

Truancy, or school absenteeism, is an issue of concern to educators because while attending classes may not assure that students will learn, not attending school can affect learning. Some research, for instance, has found a strong relationship between school attendance and the number of courses a student has passed (Mei, 1988). While truancy is a concern for all students, it is of particular concern for students in special education (i.e., learning disabled, mildly retarded, and emotionally disturbed). Students in special education, who represent approximately 13% of the nation's school age population (National Center for Education Statistics [NCES], 1999), have higher rates of truancy (Weitzman, 1985; Ziesemer, 1984) and higher dropout rates (Zigmond & Thornton, 1985) than students in regular education.

Truancy, or unexcused absence from school, has been linked to serious delinquent activity in youth and future negative behavior in adults (Bell, Rosen, & Dynlacht, 1994; Garry, 1996). Truancy is related to various types of delinquency, including gang activity, alcohol and drug abuse, and serious property crimes (Baker, Sigmon, & Nugent, 2001; Hollar & Moore, 2004). Adults who were frequently truant as teenagers are much more likely than those who were not to have poorer health and mental health, lower paying jobs, an increased chance of living in poverty, more reliance on welfare support, have children who exhibit problem behaviors, and an increased likelihood of incarceration (Bell, Rosen, & Dynlacht, 1994; Hawkins, & Castalano, 1995; Ingersoll, & LeBoeuf, 1997).

## Overview

### Correlates of Truancy

In general, the correlates of truancy fall into four broad categories (Baker, Sigmon, & Nugent, 2001): (a) family factors, (b) school factors, (c) economic variables, and (d) student variables. Family factors are those related to a lack of guidance or parental supervision, domestic violence, poverty, drug or alcohol abuse in the home, lack of awareness of attendance laws, and differing attitudes toward education. School factors are those related to school climate issues—such as school size and attitudes of teachers, other students, administrators, and inflexibility in meeting the diverse cultural and learning styles of the students. Schools often have inconsistent procedures in place for dealing with chronic absenteeism and may not have meaningful consequences available for truant youth. Economic influences are those related to employment of students, single-parent homes, high mobility rates, parents who hold multiple jobs, and a lack of affordable transportation and child care. Finally, student variables are those related to drug and alcohol abuse, lack of understanding of attendance laws, lack of social competence, mental health difficulties, and poor physical health.

### Truancy and Delinquent Behavior

One of the early warning signs that youth are headed for potential delinquent activity, social isolation, and educational failure is truancy. Research has established lack of commitment to school as a risk factor for substance abuse, delinquency, teen

pregnancy, and school drop out (Bell, et al., 1994; Huizinga, Loeber, & Thornberry, 1995; Rohrman, 1993).

The Office of Juvenile Justice and Delinquency Prevention's (OJJDP) Program of Research on the Causes of Delinquency indicated that truancy may be a precursor to serious violent and nonviolent offenses and that the connection between truancy and delinquency appeared to be particularly acute among males (Kelley, Loeber, Keenan, & DeLamarte, 1997). In addition, OJJDP's Study Group on Very Young Offenders indicated that chronic truancy in elementary school is linked to serious delinquent behavior at age 12 and under (Loeber & Farrington, 2000).

Studies investigating the relationship between substance abuse in students with disabilities indicated that adolescents, who used cigarettes or marijuana, or engaged in binge drinking had significantly higher dropout rates, lower graduation rates, lower college attendance, low grade point averages, and fewer credits earned in core courses (Hollar & Moore, 2004). Further, the researchers found that students with learning disabilities who engaged in the aforementioned activities were more likely to engage in sexual activity at a younger age.

## ***Juvenile Crime***

Juvenile crime and victimization have received considerable attention over the past two decades. Violent juvenile crime started its incline in the early 1980s and peaked in the mid-1990s (Snyder, 2001). More recent statistics revealed that juvenile arrests and violent juvenile crime have continued to decrease since 1995 (Snyder, 2001). Reasons for this promising trend may be the result of comprehensive gun-reduction strategies adopted by communities across the United States (Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice, 1999). Similar to overall juvenile crime trends, school crime has also declined (Bureau of Justice Statistics and National Center for Education Statistics, 2001). Despite this promising trend, school violence and victimization continue to threaten safe school environments. According to the Bureau of Justice Statistics and National Center for Education Statistics (2001), approximately 13 % of all public middle and high school students reported being physically attacked or in a fight with a weapon, about 19 % of middle school and high school students reported gang presence in their schools, and approximately 18 % of students reported carrying weapons at some time during a one-month period.

Stephens (1993) reported that students carry weapons for protection, to fit in, and to intimidate others, and it seems that formal consequences for carrying weapons are not serving as deterrents for this behavior. Students' perceptions of discipline consistency and enforcement procedures contribute to components of school violence and students' feelings of insecurity (McDaniel, 1994; Nuttal & Kalesnik, 1987).

Truancy and related school crime have several negative consequences that affect student safety, pro-social behavior, and academic performance. School-related crimes instill fear in students that they may become victims of violent crimes, and the threat of violence makes it difficult for them to concentrate on their academic performance (Bureau of Justice Statistics and National Center for Education Statistics, 2001; Stern, 1992). Given the repercussions of these consequences on school campuses, and also the larger community,

schools should assess the need to implement effective prevention and intervention strategies necessary to combat these issues.

Studies that directly investigate the link between violence and the student with disability suggest that disaggregated data examining the student with disabilities as perpetrator and victim are severely lacking (Flynt & Morton, 2004; Lang & Kahn, 2001). Lang and Kahn, 2001 surveyed teachers to find out about their perceptions regarding violence by and against students with disabilities. The researchers found that students with behavioral disorders were significantly more victimized by violent crime than other students with learning disabilities. Flynt & Morgan (2004) revealed in their study that there is a dearth of research related to bullying and victimization and the student with a disability. Further, this study indicated that according to the National Institute of Child Health and Human Development (2002), 3 in 10 children are affected as bully, victim, or both, but that there are no particular statistics available for students with disabilities. The need for addressing these issues is a growing concern and some special interest groups suggest that hostile school environments may promote bullying behaviors toward students with disabilities ("New Insights on Special Education Practice," 2002).

## **Purpose**

Partners of the Safe Schools Initiative (PSSI), a coalition of school districts and community youth agencies in southeastern Texas has reported concerns regarding truant behavior that may contribute to school and community juvenile crime (Texas Commission on Alcoholism and Drug Abuse, 2003). The objective of PSSI is to target funding for prevention and intervention services for at-risk youth and their families, including regular and special education, in an effort to reduce truancy, substance abuse, and juvenile delinquency. The purpose of this study was to explore the perceptions of students regarding truancy; drug use; violence; victimization; and strategies to decrease truancy, drug use, and violence in a selected local high school in southeastern Texas that participates in PSSI.

## **Method** ***Participants***

The population for this study was 1,300 students in grades 9–12 who attend a selected rural high school. The high school is the only high school in the rural school district of 4,000 students. In the school district, 44 % are economically disadvantaged. Approximately 33 % of the student population is classified as students with disabilities (C. Baird, personal communication, June 28, 2005).

The high school is rated "academically acceptable" by the Texas Education Agency. The rating is based on (a) students' performance on the statewide accountability test, Texas Assessment of Academic Knowledge and Skills (TAKS), (b) attendance, and (c) dropout rate. This rating is the third lowest on the Texas Education Agency's four rating scale, with the fourth and last rating requiring state intervention. The respondent composition for this study is as follows: Caucasian 687 (73 %), Hispanic 132 (14 %), Asian American 9 (1 %), American Indian 19 (2 %), other 28 (3 %), male 461 (49 %) and female 480 (51 %). The findings for this study were based on the information gathered from 941 of the 1,300 (72 %) surveys that were distributed.

Design and Procedure

Self-report measures are widely used in the social sciences to help control for unreported crime to the police. Although self-report measures run the risk of inflated or deflated responses to items on truancy and related delinquency, they provide one of the best means of gaining information from an adolescent population (Esbensen & Osgood, 1997).

A convenience sample of all students, including students in special education, in grades 9-12 present at the high school, was administered a survey, which provided self-reported data to obtain perceptions of truancy; drug use; violence; victimization; and strategies to decrease truancy, drug use, victimization, and violence at the campus. The survey consisted of 105 items and students were given one class period to complete the survey. Students in special education were included.

The researchers and a school district representative collaborated for the development of the 105-item modified surveys, which included previously designed items from the National Institute of Child Health and Human Development Survey (NICHHD, 1998). The survey represented items on truancy, types of delinquent behaviors that were exhibited at school and in the community, and school and community interventions which might assist in deterring delinquent behavior. This allowed for the current student data to be compared to statistics on a nationwide level. The modified survey is not a standardized instrument and may only reflect patterns of behavior from individuals who attended the high school represented.

Classroom teachers distributed the modified survey to students in grades 9-12 during one class period. Although the survey administration procedure produced a threat of validity to student responses, teachers read aloud a cover sheet: (a) explaining confidentiality, (b) the importance of honest student responses, and (c) a guarantee of anonymity, in order to promote accurate student responses. The surveys were placed in covered boxes and immediately given to the school representative for safe keeping in a locked office. The school district representative collected 941 completed surveys from the classroom teachers and submitted them to the researcher.

Limitations

Several limitations existed in this study, including survey administration procedures, using a self-report measure with students, and a systematic bias within the data for dependent variables. The sample included students from one high school campus in a rural southeastern Texas school district. The results cannot be generalized beyond the scope of the school. Students were not asked if they were in special education, thus, type of disability was not considered in the analysis of this data. The generalization of this study is limited to similar rural schools that have 33 % of the student population in special education. During administration of the survey, teachers were present while students completed the surveys; this dynamic may have potentially interfered with students' honest portrayal on survey items. The survey was completed by students on a self-report basis and may create a threat to the validity of the measure. Although self-report as a measure may pose a threat to the accuracy of the data, self-report is generally considered an acceptable method of data collection. Other researchers have considered self-report instruments acceptable measures for studying youth (Esbensen & Osgood,

1997). Esbensen and Osgood (1997) used self-report measures for delinquency and gang membership in their national evaluation of the *Gang Resistance Education and Training Program*, funded through the National Institute of Justice.

Findings

The findings of this exploratory study of perceptions of students of the local high school regarding levels of involvement in truancy; violence; drug activity; and strategies to decrease truancy, drug use, and violence indicated the following.

Truancy

Truancy in this study referred to students' absence from school without excused permission. The truancy variable was dichotomized into "yes" and "no" responses for skipping school since the beginning of the school year. A response of "yes" referred to students who had been truant and a response of "no" referred to students who had not been truant. The results of the survey indicted that, since the beginning of the school year, 489 (52 %) of the students skipped school without legitimate excuses. Approximately 696 (74 %) of these students reported that skipping school was "not very hard" to "very easy."

Violence

Violence referred to actions that harm other people or have the potential of harming other people. In this study, violence included variables such as physical fighting, gang fighting (physical fighting for the purpose of the gang), carrying weapons, and experiencing thoughts of school attacks. The violence variables were categorized into "yes" or "no." A "yes" response from students indicated that the students had experienced a violent incident, and a response of "no" indicated that the students had not experienced a violent incident. Table 1 illustrates incidences of violence within a 12- month period.

Table 1  
Percentages of Local High School Participants' Responses to Violence (N = 941) and National Institute of Child Health and Human Development (NICHHD) Data

	Local High School	NICHHD	
Violence	Yes	No	
Physical fight (12 month period)	311 (33 %)	630 (67 %)	36 %
Weapons (30 day period)	104 (11 %)	837 (89 %)	6 %
Attack thoughts (12 month period)	122 (13 %)	819 (87 %)	
Gang fight (30 day period)	179 (19 %)	762 (81 %)	

Three hundred eleven (311) (33 %) of the students reported getting into a physical fight, approximately 122 (13 %) of the students reported having thoughts of school attacks. Within a 30-day period, Table 1 illustrates that 104 (11 %) of the students reported carrying a weapon to school, and approximately 179 (19 %) of the students indicated being in a gang fight. In comparison to the local high school, the National Institute of Child Health and Human Development (NICHD) (1998) national data on violence indicated that 31 % of students reported being involved in a physical fight and 6 % of students reported that they had brought a weapon to school. The local high school's percentages on violence were higher than the national report.

## Drug Involvement

Drug involvement included tobacco use, the consumption of alcohol, marijuana, and other hard substances (methamphetamines, cocaine, heroin, and unauthorized medications). Variables for tobacco, alcohol, and marijuana use were dichotomized into responses of "yes" and "no." Students reported use during a one-month period. Variables for methamphetamines, cocaine, nonprescribed medications, and heroin were dichotomized into responses of "yes" and "no" during the students' lifetime. A response of "yes" indicated that students used the aforementioned drugs for the time period previously indicated. A response of "no" indicated that students denied drug use.

Table 2

Percentages of Local High School Participants' Responses to Drug Use (n = 941) and National Institute of Child Health and Human Development (NICHD) Data

Drug Use		Local High School		NICHD
		Yes	No	
Alcohol	(1 month)	499 (53 %)	442 (47 %)	(54 %)
	(monthly)	499 (53 %)		
Tobacco	(1 month)	263 (28 %)	678 (72 %)	(35 %)
	(monthly)	263 (28 %)		
Marijuana	(1 month)	489 (25 %)	706 (75 %)	(24 %)
	(monthly)	235 (25 %)		
Methamphetamines	(lifetime)	132 (14 %)	809 (86 %)	(13 %)
Cocaine	(lifetime)	122 (13 %)	819 (87 %)	
Unauthorized Medication	(lifetime)	207 (22 %)	734 (78 %)	
Heroin	(lifetime)	56 ( 6 %)	886 (94 %)	
Intravenous Drugs	(lifetime)	94 (10 %)		4 %

Results on drug use in Table 2 indicates that 499 (53 %) of students reported using alcohol within one month and monthly, 263 (28 %) of students used tobacco within one month and monthly, 489 (25 %) of students used marijuana within one month, and 235 (25 %) of students used marijuana monthly. The data indicates that 132 (14 %) of students tried methamphetamines in their lifetimes; 122 (13 %) of students used some type of cocaine in their lifetimes; 207 (22 %) of students used unauthorized medication, such as Xanax, during their

lifetimes; and approximately 56 (6 %) of students reported using heroin during their lifetimes; and 94 (10 %) of students reported that they used intravenous drugs during their lifetime. The NICHD (1998) national data regarding monthly drug use among students indicated that 54 % use alcohol, 35 % use tobacco, and 24 % use marijuana. The national data also reported that the lifetime use among students of cocaine is 13 % and use of intravenous drugs is 4 %. The percentages of all reported student drug use at the local high school were similar to the percentages reported by the NICHD (1998). These findings indicated to the school administration and personnel of the local high school that more interventions had to be found.

## Victimization

Victimization was included in the modified survey to determine how students perceived the school in terms of safety. Victimization referred to the mistreating, bullying, and threatening of students by other students. Threatening remarks and behaviors referred to incidences on the way to and from school and on school property for the period of the past 12 months prior to the completion of the survey. Victimization variables were categorized into "yes" or "no" responses. Table 3 illustrates that 94 (10 %) of students reported feeling threatened by others going to and from school, 94 (10 %) of students reported being threatened with a weapon on school property, 226 (24 %) of students felt bullied at school, and 348 (37 %) felt mistreated by other students at school.

Table 3

Percentages of Local High School Participants' Responses to Perceptions of Victimization Within 12 Months (n = 941)

Victimization	Yes	No
Threat by others	94 (10 %)	847 (90 %)
Threat with a weapon	94 (10 %)	847 (90 %)
Bullied	226 (24 %)	715 (76 %)
Mistreated by others	348 (37 %)	593 (63 %)

## Strategies to Decrease Drug Involvement, Violence, and Truancy

Students were asked their perceptions on effective prevention and intervention strategies to deter truancy and related behaviors.

Table 4 illustrates that students' responses for strategies to decrease drug involvement among students revealed that 320 (34 %) of the students indicated that harsher consequences would be effective, and 245 (26 %) indicated that students' involvement in activities as effective in reducing drug use among students. Students' responses for strategies to decrease violence among students indicated that 273 (29 %) of students perceived that harsher consequences would be effective, and 263 (28 %) of students reported that involvement in activities would be an effective approach. Students' responses for strategies to decrease truancy revealed that 235 (25 %) indicated that harsher consequences would help to control truancy and 273 (29 %) of students reported that involvement in activities would be effective. Students' recommendations for harsher consequences support the current punitive model of the criminal justice system in response to delinquent behavior of youth.



Table 4

Percentages of Local High School Participants' Responses to Strategies to Decrease Drug Involvement, Violence, and Truancy (n = 941)

Strategies	Percentages
<u>Drug Involvement</u>	
Harsher Consequences	320 (34 %)
Student Involvement in Activities	245 (26 %)
<u>Violence</u>	
Harsher Consequences	273 (29 %)
Student Involvement in Activities	263 (28 %)
<u>Truancy</u>	
Harsher Consequences	235 (25 %)
Student Involvement in Activities	273 (29 %)

For truancy-related issues, more students recommended a less punitive stance, such as student-involved activities (29 %). A recommendation that was rated a close second was harsher consequences.

In summary, these data produced several findings. One noteworthy finding was that while the national rate for special education is 13 %, at this particular school, 33 % of the student population is in special education. This suggests that the data is more than representative of students in special education. Second, reports for violence at the local level were lower than that reported at the national level, but higher for weapons brought to school than that found at the national level. In comparing local reports to the national report, data indicate that alcohol, marijuana, methamphetamine, and cocaine use is comparable. Intravenous drug use, however, is much higher at the local level than that reported at the national level. Third, student perceptions about effective prevention strategies were varied. Students support harsh consequences for offenses involving drugs, equal in support of harsh consequences and student involvement in activities for offenses involving violence, and preferred more student involvement activities for offenses related to truancy.

## Implications

While truancy, drug use, and violence among teens seem ever present in our society today, these problems continue to instill fear and disappointment among students, teachers, and administrators alike. Results of the selected local high school's student survey indicated the need to address violence; truancy; drug use; victimization; and strategies to decrease truancy, violence, and drug use to ensure students' likelihood for school success, especially as it relates to bringing weapons to school and intravenous drug use.

The most frequently used interventions for decreasing bullying and drug use while increasing school attendance involve school wide intervention programs and policies. In an effort to address these issues, The Partners of the Safe Schools Initiative (PSSI) coalition at the participating high school implemented two approaches to address their serious issues of truancy and related delinquent behaviors among

students: Reconnecting Youth (University of Washington School of Nursing, 2004) and Tompkins County Community Beautification Project (Cornell University Cooperative Extension Service, 2004). Due to the responses of the students in this survey that included harsh sentences as well as student interventions, it would be helpful to ensure that advisory boards are composed of community members, police officers, and students from regular and special education.

Local social service personnel that target issues such as substance abuse, delinquency prevention, and decision making, conduct the Reconnecting Youth Class daily. Students received state-level credit towards graduation for this elective class. School counselors and administrators identified students. Students in regular education and special education were included in this opportunity. Two different school districts that participated in the PSSI coalition have received grant funding to provide the Reconnecting Youth Class to manage and organize PSSI directives, and to evaluate the PSSI's effectiveness.

In the Community Beautification Project, the PSSI incorporated a community component. The program is offered by a local community organization. The program's activities include beautification and landscaping projects. The program affords school-age students the opportunity to participate in cleanup campaigns, gardening, and media initiatives to support a drug-free and safe community and school environment. In the survey, students indicated that they wanted more student inclusion in decision making. By including students in special education, this will provide an opportunity for them to engage with other students and community members to be included in civic responsibility while improving their social skills.

## Conclusion

Results of the students' surveys indicated alarming data regarding truancy and related activities, such as drug use; violence; and strategies to decrease truancy, violence and drug use at a local high school in a small town in southeastern Texas. The information provided by regular and special education students compelled the high school and school district administration and personnel to take a serious look at policies, procedures, and programs provided to students to address these critical areas. The school district administration and the high school personnel have initiated more comprehensive anti drug, anti violence, and anti truancy procedures, which yield harsh consequences for violations in any of the targeted areas. Moreover, to respond to students' request about more inclusion in decision making, students from regular and special education classes will be placed on advisory boards.

With the implementation of the aforementioned intervention and prevention programs, students at the local high school recognize that they have alternatives other than becoming involved in delinquent behaviors. While the enrollment in the prevention classes remain low, school personnel continue their efforts to guide more students in need of assistance toward these programs.

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# Twice-Exceptional, Twice At-Risk: Reflections of a Mother and Son

Julie Milligan, and Joe Nichols

**Abstract:** *One of the most misunderstood issues in contemporary research is learning disabled gifted children, one of the most misunderstood groups of children in our educational systems today is twice-exceptional students. This case study provides insight into this concept by exploring the life and educational experiences of one twice-exceptional individual. Through the reflective eyes of both him and his mother, memorable experiences are shared. These reflections describe what effect being both gifted and learning disabled had upon educational, social, and family interactions. Consequently, the mother's and son's perceptions of "right and wrong" approaches used by the school district, which served Nathan's learning needs, are described. Pseudonyms have been given to the participants of this case study.*

## Twice-Exceptional

Imagine having the abstract reasoning ability of Albert Einstein without the ability to read or calculate. Or imagine possessing the creativity of Leonardo DaVinci, Frank Lloyd Wright or Maya Angelou with an inability to express thoughts through mediums of drawing, building, or writing. One can only speculate about the overwhelming feelings of frustration, tension, anxiety, and disappointment. It is also reasonable to suppose that such feelings would negatively impact self-confidence and motivation. While it is easy to sympathize with such scenarios, it is difficult for educators to realize these individuals may exist in their classrooms.

Over the past decade, numerous studies have been conducted (Beckley, 1998; Ingleheart, 1998; Perkerson, 1999) and articles have been written (Benge & Montgomery, 1996; Callahan, 2001; Robinson, 1999; Willard-Holt, 2002; Winebrenner, 2002) pertaining to the characteristics, identification, and proposed programming services for students who are twice-exceptional. In 1998, Beckley suggested the first step toward educating students who are twice-exceptional is for educators to recognize them. She identified three sub-groups where students who are twice-exceptional were identified. These students were found (a) among those who have been identified as gifted and exhibit difficulties in school; (b) among those identified as having learning disabilities but whose exceptional abilities had never been recognized or addressed; and (c) among students in general education, who were recommended but did not qualify for services provided for the gifted or learning disabled.

Ingleheart (1998) located a student who was twice-exceptional in a special education classroom in rural Texas. Rich, the pseudonym given to the participant of the study, had been identified to receive special education services when he was in the

second grade, but was also a gifted mathematician despite his deficit in reading. Rich's gift was not discovered, however, until he was in high school. Success flourished when cooperation occurred between the resource teacher, classroom teacher, gifted education teacher, and his parents. Through the cooperative efforts of the adults, more opportunities were offered to him. As a young adult, he received his engineering degree from Texas A & M University with honors.

Not all reports of students, who are twice-exceptional, have happy endings. Peterson (1997) identified a group of students referred to as the "tough and bright." These students were reported to have a number of common negative characteristics. They were: (a) feelings of depression, anger, moodiness, and confusion; (b) behaviors of poor impulse control and substance abuse; and (c) behavioral and academic difficulties.

There are common elements in the professional literature regarding students who are twice-exceptional (Beckley, 1998; Dansinger, 2000; Ingleheart, 1998; Robinson, 1999). Consequently, researchers have identified certain "musts" in order to prevent negative characteristics among this population. Cooperation must exist between the school and the home to address both exceptionalities. Also, this team of adults must concentrate on the specific talents of the twice-exceptional student and recognize the existence of the learning difference. Finally, an individualized plan is imperative toward meeting the learning needs of gifted learning disabled students (Dansinger, 2000; Ingleheart, 1998; Robinson, 1999).

Strop & Goldman (2002) and Winebrenner (2002) have suggested that teachers need training in teaching and management strategies in order to ensure that an enriched and appropriate curriculum



exists for these students. They argued that teachers must encourage students to (a) see the big picture before learning its pieces and (b) set realistic, short-term goals. Further, they reported that teachers should use multiple visual aids, provide hands-on situations, and use musical chants and rhymes.

Dansinger (2000) recommended “academic coaching” for students who are twice-exceptional. The phases of academic coaching are to review students’ assessment, determine the student’s ability to benefit from coaching, determine if the student is motivated to improve performance, identify the student’s strengths and weaknesses, and develop a plan of action to improve performance. This program has been used to teach goal setting, career planning, problem solving, conflict resolution, study skills, and test-taking strategies. In a review of two case studies where students engaged in such a program, both participants improved self-confidence and achievement (Dansinger, 2000).

Regardless of strategy used to care for twice-exceptional students’ learning and affective needs, these students are twice at-risk; yet they deserve academic success, self-esteem, and self-confidence. These goals are certainly attainable with timely identification and effective intervention (Ingleheart, 1998). The following description of one case study will demonstrate the “ups and downs” of one young man’s journey as a student identified as twice-exceptional. Implications for educators will also be described.

## Twice-Exceptional and Issues with IDEA and Section 504

Students who are identified as twice-exceptional qualify for special education services under the Individuals with Disabilities Education Act (IDEA) and/or Section 504 of the Rehabilitation Act of 1973 (504). Both acts are designed to ensure that students with disabilities in public schools have access to an education. While 504 is designed to ensure that children with disabilities are accommodated in the public school setting, IDEA is far more reaching in that it mandates that they are to receive an education specific to their educational needs. “According to a 1992 Department of Education Office for Civil Rights survey, there were 24,241 people in the United States who were identified as being both learning disabled and gifted”(Council for Exceptional Children, 2005).

Services provided to students in gifted education programs are under the supervision of state laws with no national mandates in place. While a child identified as twice-exceptional is ensured of special education services, there is no federal legislation offering similar guarantees for gifted education services.

Although services for children with learning disabilities are covered under PL 94-142 and IDEA, those laws do not address giftedness. There is no comparable federal legislation that addresses the rights and responsibilities of children who are both gifted and disabled. Most school systems identify and provide services to students with learning disabilities whose achievement level is significantly lower than their ability level. Gifted students with disabilities rarely meet the criteria, except for those whose disability is so severe that their giftedness does not compensate for the disability. In such cases, a state might be unwilling to “double label” gifted

children with disabilities and may not provide services under both codes (Council for Exceptional Children, 2005).

## Introduction to the Case Study

Nathan’s school career had an uneventful start and ended with an appointment to the United States Naval Academy, but the years in between saw a diagnosis of a learning disability, an identification of giftedness, and a breakup of his family. Nathan entered kindergarten with very high scores in his kindergarten screening evaluation, yet there were concerns from his mother that his academic progress was in question. His ability to comprehend was never in question, but his fine motor abilities troubled her. She feared that his writing, which often appeared asymmetric with letters that were reversed, went far beyond the time that was developmentally appropriate. His kindergarten teachers said there was no need for alarm, but his first grade teacher saw a very bright child who was struggling with graphomotor tasks.

Nathan’s mother and the school district agreed upon a referral for a multidisciplinary evaluation, and the results were stunning. A significant disparity emerged between his cognitive ability and visual motor integration when the WISC-R revealed an IQ score of 150 and the Test of Visual Motor Integration revealed a score of 118. The disparity between the two scores qualified him for services in the learning disabilities program and simultaneously identified him as gifted. Never before, nor in the 14 years since Nathan was initially evaluated, has the school district encountered a higher score on a cognitive abilities evaluation. Never before, nor since, has a child received services in the district’s special education program while concurrently being served in the gifted education (GTC) program.

## Nathan’s Turn

Nathan remembers his early years in the primary grades with mixed emotions. He distinctly remembers upside-down letters such as “e” and “a” as well as a backward “y.” He remembers a kind first grade teacher who saw a problem and sought the proper help to remediate it. He fondly remembers the resource room where he received special education services. “I always thought I was going to the resource room to play games. It was a very positive experience, and one of my lifelong friends was in the room with me.” The friend is now an Airman First Class in the United States Air Force. Along with the fond recollections of his school experiences came the dark memories of his father leaving the home. Going to school with positive teachers, receiving toy-box rewards, and learning to use the computer were bright spots, in contrast to returning home to see his mother agonizing over a breakup of the family.

Nathan also remembers the intermediate grades with mixed emotions. By third grade, he had been dismissed from the resource room, but had been placed in the district’s GTC program. He loved the program and its teacher and fondly remembers the projects she initiated and how they expanded his horizons in reading and problem solving. The attitudes of some of his regular education teachers toward the GTC program were not as fondly remembered. Nathan observed the attitudes of regular education teachers as follows:

I think they perceived that the GTC students were leaving class for an hour to play games while the other students were



expected to stay in the classroom and work. In reality, there were condescending remarks made toward the GTC students and the program by the regular education teachers.

Nathan felt as if the teachers resented the way the program was arranged. The GTC students left the regular education classroom every other day for 90 minutes. One week they would go the GTC room three days and the alternate week they would go two days. Students in the GTC program were supposed to be given reduced amounts of homework since they were perceived to not need a significant amount of independent practice, but according to Nathan this seldom occurred:

I don't remember ever having less homework than others in my classroom, and I remember that some teachers would make sarcastic remarks to GTC students when their work was less than acceptable. Looking back, I understand the resentment, but at the time it was difficult. To make things worse for me, I always had a problem with organization.

By fifth grade, Nathan began to struggle with socioeconomic perceptions:

I really didn't feel as if I belonged. There were students in the program whose parents had a lot more money than we had and most came from two-parent homes. At the time, my parents' divorce was an issue which I felt cast a stigma on me, but again as I look back, I don't think it was an issue with my peers' perceptions of me.

It was in the fifth grade that Nathan developed a voracious appetite for reading. He would check out several books and read them, but his fondest memory and one of which he is most proud was reading *Hunt for Red October*. Nathan stated that reading that book in the fifth grade stimulated his desire to serve in the United States Navy.

The middle school years were also remembered with mixed emotions. For the first time in his school career, Nathan experienced grade problems. He had not brought home a grade of less than "C" since first grade, which was received for handwriting. His second quarter grade of "D" in seventh grade science is remembered as one of significant concern:

My mother was upset, but never yelled. She just encouraged and told me I could do better. I really liked my teacher, but his grades were determined by little daily assignments. I just never did well with that kind of expectation. Small details were a problem. I just really feel like it was really the whole left-brained thing. I loved writing, but the organizational details required in math and science were troubling. I had to learn to deal with it.

The high school years are reflected upon as a time of great reward and challenge for Nathan. He emerged as an outstanding school citizen and established a reputation as an outstanding student and athlete. He was named to the National Honor Society, captained the debate team, and was selected to the all conference football team.

However, the habits that constantly plague individuals with learning disabilities often reared their ugly head. As Nathan notes, organizational skills seemed especially troublesome:

We had a semester assignment in College Prep English where we had to keep a senior scrapbook. Mine was in total disarray with materials scattered around. I put the notebook together the night before it was due with my girlfriend organizing the content. I made an 'A' on the project.

This was typical of Nathan's high school academic career. Courses, which were rooted in creativity, were enjoyable until their organizational component emerged. "I loved all the courses that afforded me to tap into my creativity. Physics was not my strong suit. I made an 'A' in it, but did not enjoy the course." Oddly enough, instructors who Nathan credits with much of his success taught the courses that weren't creative in nature. "These teachers would literally call me out of class and tell me that I could do better."

It is outstanding when any high school student manages to carry a 3.8 grade point on a 4.0 scale, but Nathan did this while competing in football, track and field, speech and debate club, and working 40 hours per week at the local radio station.

I know that my involvement in so many school activities and working at the radio station worried my mother, but she supported me in all my endeavors, and I kept my grades up throughout the entire process. My proudest moment came at my high school graduation when the school counselor cited our graduating class for the scholarships we had received. My class received 750,000 dollars in scholarship aid. When my name was announced, the counselor revealed publicly for the first time that I had received an appointment to the United States Naval Academy, and the value of that appointment was estimated to be 250,000 dollars. My graduating class gave me a standing ovation during the ceremony.

Naval Academy personnel had to be assured that Nathan no longer carried the label of learning disabled before he was considered for appointment. A letter from the school district's special education director accompanied his application materials and ensured the Academy that he had been dismissed from special education services.

### ***Looking Back and to the Future***

As Nathan looks back on his school career he has few regrets. Among those few regrettable memories are the teachers who demonstrated little tolerance for children who were identified as GTC.

Some of my grade school years were a struggle, and it was difficult when teachers would single GTC students out in front of the class when their work was not as good as their peers'. I also wish I would have had the opportunity to take calculus in high school. Not having it has placed me at somewhat of a disadvantage in the Academy.

I feel fortunate that I attended a school district that had a GTC program, a strong special education program, and teachers who cared about me. My fondest memories are the high school years when I was able to emerge more as an individual.

Nathan discussed plans of pursuing flight school after graduation from the Academy. He also revealed that he has a serious relationship with his high school sweetheart who is majoring in journalism in a

public university in Nathan's home state. Their current plans are to marry upon his graduation. If flight school does not work out, a career as a ship's officer is being considered. A degree from the United States Naval Academy in Humanities will offer Nathan many career options after his military commitments have been fulfilled.

## Mom's Turn

Anna had major concerns for her son as he began his kindergarten career. Her marriage was in the middle of a separation that resulted in her moving Nathan back into the vicinity of her hometown during the middle of his kindergarten year. This move resulted in Nathan being enrolled in two school districts in states that were over one thousand miles apart during his kindergarten year. As a career social worker, Anna had often seen the trauma to young children who were involved in family separations, and now she was living it with Nathan.

The family separation was not her only concern for Nathan. She noticed that he was encountering a great deal of difficulty with written expression. She expressed her concerns to teachers in both states, and both the teachers thought that the problems were developmental. "They both told me that it would be something that Nathan would outgrow."

As the first quarter of first grade was completed, Anna received a call from Nathan's teacher who discussed concerns regarding his reversals of letters and words. In their conference, the teacher told Anna that Nathan was a very bright child, but manifested the characteristics of a learning disability. Anna was not surprised by the news, so she and the teacher referred Nathan to receive a multidisciplinary evaluation to determine if a learning disability was present.

I could tell that the teacher was apprehensive in discussing a learning disability with me. It seemed obvious that she had encountered many negative responses from parents with whom she had engaged in these types of discussions previously. I told her that I had suspected a learning disability throughout the previous two years and was relieved that testing would occur to see if something was causing the problems with reversals.

The testing determined that Nathan had a learning disability in written expression. He reversed letters in words that were age-appropriate and also, consistently, reversed letters in his name. "The only thing I told the school was that I wanted what was best for Nathan, but I would not have him labeled a dummy." In her work with children in social services settings, Anna had seen many children with diagnosed disabilities and had encountered parents who were in denial and were combative toward the school districts when special education services were recommended. She was determined that this mistake would not be made with Nathan, and she worked with school personnel to develop an Individualized Educational Program (IEP) for her son.

The first grade year was probably the most pivotal for Nathan in his school career. The family separation culminated in divorce, and Nathan's self confidence was compromised in the process. The strain on him was manifested through a significant weight gain and an increasing frustration with his writing. "He knew that he could think as well as many of those in his class and often expressed that concern. His teacher and I knew that he was a very bright child." A multitude

of factors faced Nathan as he continued his educational journey that year, and Anna sought family counseling, which seemed to help.

The multidisciplinary evaluation revealed a significant discrepancy between Nathan's potential and functional level in visual motor skills. This came as little surprise to Anna or his first grade teacher. The greatest surprise came when the results of the cognitive abilities test (WISC-R) were discussed. Nathan had scored higher on the test than any previous student in the school district's history. He attained a full-scale I.Q. score of 150. It was the first time that school personnel had encountered a child with a learning disability who was also considered educationally gifted. Anna expressed her gratitude to those early educators who worked with Nathan.

With the help of a family counselor, and wonderful teachers in both the regular first grade classroom and special education, Nathan survived first grade and ended the year showing a great deal of improvement in his written expression. This had been a very difficult year for me, and I really felt like the Lord and I raised Nathan that year.

As his second grade year approached, Nathan was provided a regular education teacher who emphasized structure. As with many children with learning disabilities, the lack of structure with his work was a concern. With the teacher's close supervision and with the assistance of the teacher in the learning disabilities program, he flourished in school. By the end of the year, Nathan's IEP committee recommended that he be removed from the special education resource room setting as he entered third grade. At the same time, Nathan was also the number one qualifier for the district's gifted education program.

The first three years had been ones of great anxiety for Anna. She described these difficult times:

I had gone through a separation and divorce and had to confront the reality that I had a very bright child who had learning difficulties. There was also some guilt as to what I may have done to cause the learning problems. I remember having toxemia and strep throat during my pregnancy. The thought of 'what could I have done' was on my mind very often during these difficult three years. What could I have done physically during my pregnancy, and what could I have done personally that would have had less impact on Nathan in these critical years of his life?

As Nathan entered third grade, he was no longer being served in a special education resource room setting, but began being served in the gifted education program.

I had been prepared by the district's special services director that Nathan could possibly go from being classified as learning disabled to being classified as gifted. When this actually happened, it didn't come as a total surprise. His third grade teacher had taken the time to have discussions with his second grade teacher. The transition from one attendance center to the other and the transition from special education to gifted education went very well.

Things continued to go very well for Nathan through fourth grade, but his fifth grade year was one of disappointment for Anna.

Nathan did well during his fifth grade year, but he didn't excel. His teacher was facing many personal problems from the death of her spouse. If I could make a suggestion to any school district, it would be to have teachers encountering personal problems not teaching children.

In many ways it was a lost year for Nathan. Also, homework loads increased significantly during this year. Even though students in the gifted education program were supposed to have reduced homework assignments, it didn't work that way during the fifth grade.

Looking back, the homework load seemed really heavy, but Nathan thought it was worth it to get to continue in the gifted education program. He did receive a lot of one-on-one instruction from the gifted education teacher and also was able to engage in many affective programs in her classroom.

The sixth grade year brought a transition to a new attendance center. It was a difficult time for Nathan. He had always been plagued with organizational problems and encountering teachers for the first time in a departmentalized setting seemed to make things more difficult. The sixth grade year went well after the adjustment to the change, but in the seventh grade year there were problems. "There was one teacher who gave Nathan grief because he was in gifted education. She seemed spiteful, and I could really never understand the reasoning." Comments were constantly made to Nathan about his work quality and that he was not doing what a "gifted" student should be doing. "This one teacher made both of our lives miserable, and to this day I do not know why."

Other than his experience with the one particular teacher, the middle school years were good ones. Nathan's achievement tests reflected work at the 99th percentile in all subjects, and he qualified for the state's math and geography competitions. "He also got involved in football in the eighth grade and began to slim down." The eighth grade year was also the final year for him to be served in the GTC program. During the high school years, the district placed identified GTC students in advanced courses without the formal pullout format that had been encountered in grades three through eight.

The last transition for Nathan came when he entered senior high school. Anna characterized Nathan's high school experience as wonderful years where he excelled in football and speech and debate as well as in his various subjects. The academic difficulties encountered centered on the various homework formats that included writing, note taking, and reading lengthy passages from textbooks. Using the word processor became a great tool for Nathan to work through writing assignments, but the note taking and lengthy passages were a constant challenge.

An important milestone came during his freshman year when Nathan met a senior girl who really took an interest in him. It was not a boyfriend-girlfriend relationship, but a close friendship. The girl was on the debate team and encouraged him to become a part of the team. "I could have never sparked his interest like she did." As a result of this relationship, Nathan excelled in debate tournaments throughout his high school career.

Nathan accomplished many things in high school. He received all-conference honors in football, captained the speech and debate team, was in the top ten percent of his class during each of his four

years, and was a member of the National Honor Society. "I am so proud of him and the obstacles he overcame. Again, I can only say that the Lord and I raised Nathan."

As Nathan prepared for college, Anna provided him with several options of attending regional and state universities. "He was highly recruited by several colleges for his academic success, but he only wanted to attend the Naval Academy. He had the opportunity to take ROTC scholarships, but kept his focus on the Academy."

His first year was very difficult. A football injury from high school forced him to leave the Academy and come home for surgery. He entered a community college and had to reapply for the Naval Academy after recuperating from surgery. He was again accepted and has done very well. "It took me a year to let go, but I've seen how happy he is, and I am so very proud of what he has accomplished."

### ***Looking Back To The Future***

In looking back at his education in the public schools, both Nathan and Anna offer suggestions to educational personnel and parents who are encountering the issue of "twice-exceptional." Anna's suggestions are as follow:

1. Find a school district that focuses on both special education and gifted education and make a commitment to keep the child in that district through graduation from high school.
2. Provide hands-on learning activities as much as possible in both the learning disabilities program and gifted education program.
3. Limit the pencil-paper activities that do not focus on the child's strengths.
4. Look for school districts that have reasonable pupil/teacher ratios.
5. If children are capable of being educated without the services of a special education teacher, dismiss them from the program and drop labels suggesting special education affiliation, but continue to monitor their progress.
6. Look for school districts that provide strong classroom support by school counselors and administration.

In reflecting on Nathan's successes and challenges during his public school years, Anna noted that successes far outnumbered the failures.

With everything considered, I was well pleased with Nathan's public school education from his first grade year through graduation. I always appreciated the way the school district dropped the special education label when he was dismissed from the program, but continued to monitor his progress throughout his school career. Those learning problems encountered in the early years never totally went away, but school personnel constantly monitored his progress to ensure that his school life, without the help of a resource room teacher, would be manageable. Our mantle is full of awards from Nathan's years in public school.

Nathan's suggestions focus on the regular education teachers as they approach children who learn differently.

1. Teachers should realize that students are not leaving classrooms to play games in the gifted education room and special education resource room. These settings are essential to a child's success.

2. The performances of children who participate in GTC should not be openly compared to children not participating in GTC. Condescending remarks hurt children's feelings and are inexcusable.
3. GTC students who are in pullout programs should be given a representative sample of homework from the regular education program. Expecting a young child to complete all the assignments in the GTE program and the regular education program can be overwhelming.
4. Homework formats should be consistent among teachers with the amount of homework being realistic.
5. Teachers should make a concentrated effort to focus on the learning styles of students, especially those who learn differently.

In looking back on the teachers Nathan encountered in his public school career, he indicates "there were mostly good teachers, but the 'great' ones were those who went beyond the walls of the classroom and took a personal interest in my education and future."

## Twice-Exceptional, Twice At-Risk: Keeping Nathan in School

Children who are identified as twice-exceptional are considered to be in a very high-risk category in terms of completing school and having success in post high school years (Robinson, 1999; Strop & Goldman, 2002). An added major at-risk factor for Nathan was being a product of a broken home. Yet, the mantle over this family's fireplace is a testimonial to Nathan's successes in public school. The awards range from academics to speech and debate to athletics and are numerous. With a mother's love, a school district's concern, and (according to a mother's instinct) some divine intervention, Nathan overcame many obstacles on his journey from being a gifted child diagnosed with a learning disability to becoming a Midshipman in the United States Naval Academy.

What kept Nathan from being another casualty that is frequent among this population of students? Issues such as boredom, frustration, parental support, curriculum issues, and self-determination often confront students who are identified as twice-exceptional. Nathan encountered each of these issues in differing ways.

Seldom was Nathan bored in school. Since he left the special education program at an early age, he was constantly challenged with the curriculum provided through the gifted education program and in the regular education setting. Though a few teachers were unwilling to recognize that he had some limitations, his gifted education teacher and his mother helped him work through these situations.

Frustration almost caused him to become a casualty in the middle school grades. A teacher without sensitivity to his issues ignored his needs and for the first time in his school career, he received a failing grade at mid-semester. Again, a parent who constantly advocated for his success intervened, and Nathan managed to get past the obstacle of poor teaching and move forward to the high school level. With the assistance and insistence of a building level administrator, the teacher made appropriate accommodations that resulted in a successful completion of the course.

The curriculum was never modified for Nathan other than the modifications set forth when he was in the gifted education program. These modifications were made for all students in the program and were focused on giving students a sampling of homework assign-

ments so they would not be inundated with the work from the GTC program and the regular education program. When the curriculum was difficult, he had assistance from his mother and from teachers who recognized his potential as well as his limitations. Other than one teacher at the middle school level, his instructors were never an obstacle to the success of his education.

Nathan's success was primarily a result of a mother who cared and teachers who recognized his great potential. None of his regular education teachers were trained in special techniques for teaching children with his diagnosis as described by Strop & Goldman (2002) and Winebrenner (2002), nor did he experience an academic coach as described by Dansinger (2002). He did encounter a special education teacher at a critical juncture in his educational journey who focused on remediation of his area of disability. At the time of his placement in the program, the emphasis was to target the disability and not necessarily to make accommodations for classroom learning. Although appropriate accommodations were made, the focus in his special education setting was an intense program that addressed visual motor dysfunctions.

Nathan did experience intervention with special education services and gifted education services at an early age. According to Inglehart (1998), this is necessary if a child with this diagnosis is to be successful. As a result of this early intervention, he was able to be released from special education services, but was closely monitored throughout his school career to ensure that his difficulties with visual motor integration did not compromise his academic achievement.

## Limitations and Recommendations for Further Study

This case study is limited to the life of one child who was educated in a rural school district and was reared in a single-parent household. The study certainly indicates a success story from the vantage points of the parent, the child, and the school district. Caution should be used in generalizing the observations made throughout this study as the impact of family dynamics and community culture could vary significantly from what may occur elsewhere. Other limitations are as follows:

1. The child was diagnosed with no other disability than a learning disability.
2. The child came from a home environment where education was a high priority and where a significant amount of trust was afforded the school district.
3. The child studied was a male and gender issues were not discussed nor were they explored.

There is little information available regarding the efficacy of programs that are in place to address children who are twice-exceptional. Information that is available tends to suggest that children identified as concomitantly gifted and learning disabled are more likely to be involved in educational programs that concentrate on the special education aspect of their schooling, but seldom focus on their needs as students who are gifted, talented, and creative.

An extensive study on the programming of children who are twice-exceptional would be especially enlightening. Longitudinal studies of these children and their post-school outcomes would provide new



information as to whether or not school districts were meeting the needs of this population of students. Studies of programs designed specifically to explore the successes and failures of children who are twice-exceptional would also be enlightening.

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