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SPECIFICATIONS FOR MANUSCRIPT SUBMISSION

Focus:

Manuscripts should be original works not previously published nor concurrently submitted for publication to other journals. Manuscripts should be written clearly and concisely for a diverse audience, especially educational professionals in K-12 and higher education. Topics appropriate for *The Journal of At-Risk Issues* include, but are not limited to, research and practice, dropout prevention strategies, school restructuring, social and cultural reform, family issues, tracking, youth in at-risk situations, literacy, school violence, alternative education, cooperative learning, learning styles, community involvement in education, and dropout recovery.

Research reports describe original studies that have applied applications. Group designs, single-subject designs, qualitative methods, mixed methods design, and other appropriate strategies are welcome. Review articles provide qualitative and/or quantitative syntheses of published and unpublished research and other information that yields important perspectives about at-risk populations. Such articles should stress applied implications.

Format:

Manuscripts should follow the guidelines of the *Publication Manual of the American Psychological Association* (5th ed.). Manuscripts should not exceed 25 typed, double-spaced, consecutively numbered pages, including all cited references. Submitted manuscripts which do not follow APA referencing will be returned to the author without editorial review. Illustrative materials, including charts, tables, figures, etc., should be clearly labeled with a minimum of 1 and 1/2 inch margins.

Submission:

Submit electronically in MicrosoftWord, including an abstract, and send to the editor at edu_rar@shsu.edu for editorial review. Manuscripts should also include a cover page with the following information: the full manuscript title; the author's full name, title, department, institution or professional affiliation, return mailing address, email address, and telephone number; and the full names of coauthors with their titles, departments, institution or professional affiliations, mailing addresses, and email addresses. Do not include any identifying information in the text pages. All appropriate manuscripts will be submitted to a blind review by three reviewers. Manuscripts may be submitted at any time for review. If accepted, authors will be notified of publication. There is no publication fee.

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Authors are encouraged to submit appropriate book reviews for publication consideration. Please include the following: an objective review of no more than five, double-spaced pages; full name of the book and author(s); and publisher including city, state, date of publication, ISBN number, and cost.

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Preparing Underprepared Students for College: Remedial Education and Early Assessment Programs

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Abstract: *Postsecondary level remediation has recently received a great deal of attention with the public questioning the efficacy of spending money on remedial classes, and scholars questioning whether such courses are effective in helping students graduate. The California State University (CSU) system has responded to the challenge of remediation by creating an Early Assessment Program (EAP). The authors discuss the EAP's strengths and weaknesses, questioning whether testing students is the best route to overcoming the problem of remediation.*

Introduction

Remedial education at the postsecondary level has received a great deal of attention over the last decade (Attewell, Lavin, Domina, & Levey, 2006; Grubb & Oakes, 2007). While scholars agree that several definitions exist, Parsad and Lewis (2003) at the National Center for Education Statistics (NCES) define postsecondary remedial education as "courses in reading, writing, or mathematics for college-level students lacking those skills necessary to perform college-level work at the level required by the institution" (p. 1). Many American high school graduates gain admission to four-year postsecondary institutions only to find that they are not prepared for college-level work. As a result, the number of remedial courses in reading, writing, and mathematics has increased at four-year postsecondary institutions. The public has questioned the efficacy of public postsecondary institutions spending money on classes that are not postsecondary. Scholars also have questioned whether such courses are effective in helping students to graduate from college. Regardless of one's position on the cost and effectiveness of such courses, one point is clear: students are better off if they arrive at higher education's doorstep prepared for college-level work.

Public postsecondary institutions have fashioned different responses to how to improve preparedness. Some institutions have set higher standards for admission so that those who are not ready for college-level work simply are not admitted. Other institutions have continued admitting underprepared students and provided them with remedial courses. And still other institutions are trying to ameliorate the problem. One possible way to solve the problem is to offer an assessment for students in high school that enables the student and the institution to gauge whether he or she is prepared; if the student is not prepared, the student might then take coursework while in high school to better prepare for college.

The desire to ameliorate the problem of underprepared students by way of assessment is under consideration in numerous states (Long & Riley, 2007) and is the focus of this paper. We discuss how one public state university system—the California State University (CSU)—has responded to the challenge of remediation. We begin with an overview of the current state of postsecondary remedial education in the United States, and then consider the effects it has on student outcomes. In order to narrow the discussion, we focus on remedial English skills. We then consider the specifics of the CSU System's efforts in preparing California high school students for college-level English work. Our purpose is to bring into question if claims can be made that these efforts have succeeded, or if they even have the potential to succeed as they are currently configured in significantly reducing the need for English remediation at CSU campuses.

Underprepared Students and Postsecondary Education
Background

Underprepared students have participated in American higher education for well over a century (Boylan, Bonham, & White, 1999; Merisotis & Phipps, 2000). Students at all levels of postsecondary education have long been the beneficiaries of tutoring services, intensive instruction, and preparatory programs aiming to get them caught up in academic skills and practice. Scholars point out that remedial services in the postsecondary setting have contributed to many students' successes in postsecondary education, allowing students of varying abilities and backgrounds to continue formal schooling past the secondary level (Boylan et al., 1999; Lavin, Alba, & Silberstein, 1981).

Using data from the National Center for Education Statistics' 1982 Postsecondary Education Transcript Study, Wirt et al. (2001) reported that a higher percentage of community college students than four-year college students were assigned to remedial courses. Approximately 63% of students who attended only a two-year institution and 64% of those who attended both two- and four-year institutions enrolled in at least one remedial course. Forty percent of those who attended only a four-year institution enrolled in at least one remedial course. Depending on the college or university, students place into a remedial course by way of a placement exam (either institution-specific or a standardized exam such as the SAT) prior to the beginning of classes, but after having been admitted to the institution. Public two-year institutions are more likely than any other type of postsecondary organization to offer remedial courses; 98% of public two-year colleges in 2000 offered at least one remedial course. Public four-year universities are also more likely to offer remedial courses and have a higher percentage of students taking remedial courses than their private counterparts (Parsad & Lewis, 2003).

Within the ranks of remedial education are high numbers of students who successfully completed college preparatory tracks in high school (Attewell et al., 2006). For example, in California, 33.5% of high school graduates in 2003 completed the college course requirements for admission eligibility to California State University (CSU) and the University of California (UC) (California Postsecondary Education Commission [CPEC], 2005b; California State University [CSU], n.d. d; University of California [UC], n.d. b). However, even exceeding the minimum required courses, as many CSU and UC applicants do, does not ensure a student's college-readiness at the time of high school graduation (Redden, 2007). Many of California's high school students are qualified for admission to the state's four-year public institutions—approximately 14.4% for the UC and 28.8% for the CSU in 2003 (CPEC, 2005a). In the CSU, approximately 37.5% and 45.3% of the 46,081 fall 2006 regularly admitted first-time freshmen needed remedial course work in mathematics and English respectively, while only 69.8% of fall 2006 UC enrolled freshmen satisfied the UC Analytical Writing Requirement (CSU, 2007b; UC, n.d. a). These students are underprepared for the rigors of college-level academic work and study.

Compounding the significant numbers of underprepared students in California is the ethnic and socioeconomic distribution of the underprepared. Roughly 63.2% of African Americans and 62.0% of Mexican Americans needed English remediation in fall 2006 (CSU, 2007b). The spring 2007 cohort who took the early assessment exam of the CSU System shows that 92% of economically disadvantaged students needed remediation in English (Educational Testing Service [ETS], n.d.). Given the numbers of students who are identified as underprepared for CSU-level English coursework by the university's placement test and early assessment sections, any early assessment effort has a significant challenge in helping California's high school students—especially historically underrepresented students—become CSU-ready by high school graduation.

One concern pertains to the effect of remedial education on overall degree attainment rates. Clifford Adelman (1996) has shown an inverse relationship between a student's need for remediation and completion of a degree. Further, for those students who are unable to secure a place in a four-year institution, beginning their postsecondary careers at a two-year community college rather than at a four-year institution decreases their chances of obtaining a baccalaureate degree (Dougherty, 1987; Grubb, 1991; Shaw, 1997). Examining National Educational Longitudinal Study of 1988 (NELS: 88) data, Attewell and colleagues (2006) found that, on average, "students who took remedial coursework in reading at a four-year college had between a 7% (logistic model) and 11% (propensity model) lower probability of completing a degree than otherwise identical students who did not enroll in remedial reading" (p. 909). They conclude that taking remedial courses in reading has a negative effect on graduation for students underprepared at four-year institutions. Students who start in remedial coursework often do not complete a baccalaureate degree, citing extra courses, time, and money as reasons contributing to noncompletion. Breneman and Haarlow (1998) point out that remedial students are also often limited to the courses they can enroll in while they are completing remedial coursework depending on the institution they attend. Further, many students do not receive credit towards a degree for remedial courses.

Looking at the three main areas of remediation (mathematics, reading, and writing), scholars have found that particular academic skill shortcomings hinder students in different ways. Adelman (1998) pointed out that "when reading is at the core of the problem, the odds of success in college environments are so low that other approaches are called for" (p. 11). Simply stated, students who lack strong English language skills are at a significant disadvantage compared to their well-prepared peers (Adelman, 1996; 1998).

The concern over whether students are receiving the appropriate preparation for postsecondary work while in secondary school in part has sparked the current standards movement (Hoyt & Sorensen, 1999). Education practitioners and scholars see a link between the underpreparation of students in secondary school and their inability to do college-level work (Hoyt & Sorensen, 1999; Kirst, 1998). Because of this link, colleges and universities are increasingly creating partnerships with high schools in order to address and remedy the remedial education problem while students are still in high school (Hoyt & Sorensen, 1999). These partnerships attempt to bridge the gaps between the two educational systems by identifying students who are not ready for college-level work while they still have time to catch up in high school (Merisotis & Phipps, 2000).

State Postsecondary Responses to Underprepared Students

In light of the remedial English and mathematics problem in higher education, a number of state and large urban public colleges and universities in Florida, Massachusetts, and New York have recommended policies that would locate all remediation within the community college sector (Shaw, 1997). Since 1985, four-year institutions in Florida have contracted with the two-year state colleges to offer whatever remedial instruction that is needed by the four-year students (Breneman & Haarlow, 1998). In 1995, the City University of New York (CUNY) attempted to move all students who needed more than a year of remediation from its senior colleges to the system's community colleges and night schools in the attempt to limit costs of providing such services in the senior colleges. The plan had the

potential to affect two-thirds of the entering freshman population at the senior colleges who start their college careers in remedial courses (Gumport & Bastedo, 2001). A similar CSU System policy impacts students who do not transition from remedial coursework to college-level coursework within a year. Current numbers (fall 2005 to fall 2006) show that 4,115 CSU students did not successfully complete remedial coursework after the first year of enrollment (CSU, 2007a). Of these, 2,742 students were not allowed to reenroll in the CSU the following year.

Other states have attempted additional strategies. Ohio, Oklahoma, and Illinois, for example, have created an early placement exam (Long & Riley, 2007). Montana, New Jersey, and Oregon have suggested holding secondary schools responsible for the underpreparedness of students by passing the cost of postsecondary remedial education to the states' K–12 school districts (Merisotis & Phipps, 2000; Shaw, 1997). Ruppert (1996) explains that legislators are split three ways—34% agreed, 32% disagreed, 32% neutral—in response to the statement that colleges and universities should give remedial education more attention. However, virtually all legislators agreed that underprepared college students are a problem inherited from the K–12 sector.

Thus, although the success of remediation varies based on factors such as intensity, type of classes, type of student, and institution, a few overarching conclusions can be reached. Those in a four-year institution prefer not to have to offer such classes, and when they do offer them they have varying rates of success in enabling students to persist. The topic of remediation is of public policy concern on national, state, and institutional levels, but a solution has proven elusive. Shaw (1997) explains that "remedial education has recently emerged at the forefront of educational policy debates at the district, state, and national levels [and it] is a result of the reemergence of long-standing ideological debates regarding the nature and purpose of 'higher learning'" (p. 285). We turn now to one possible solution by first describing the genesis of the CSU program, what the program entails and how it is perceived, and then consider how successful it has been.

California State University's Early Assessment Program
Background

The California State University (CSU) system, the nation's largest university with 23 campuses and more than 400,000 students, has struggled with the remedial education issue for over a decade. The university enrolled 50,144 first-time freshmen in fall 2006 (CSU, n.d. a). Of these first-time freshmen, 46,081 students were required to prove their English and mathematics proficiency either by way of a standardized test or the CSU placement exam; 20,860 students were placed into remedial English courses and 17,303 went into remedial mathematics courses (CSU, 2007b).

The financial cost of providing wide-scale remedial education in the CSU System is considerable. One figure estimates that the CSU System spent approximately $9.3 million in remedial education services to students in 1995 (Breneman & Haarlow, 1998). The California Legislative Analyst's Office (2006) estimates that in 2005, the state of California paid about $7,500 per full-time equivalent (FTE) student

to provide remedial courses. While the CSU System does not publish how many FTEs are spent on remedial education annually, education analysts estimate that in recent years, the figure is between $3,800 and $5,500 per year. With these FTE estimates, the CSU System is spending between $28 million and $42 million a year to provide remedial education to CSU students. In 2004, David Spence, then-CSU System Executive Vice Chancellor, stated that the expenditure could be as much as $30 to $35 million a year (Mills, 2004). Regardless of the estimate one chooses to accept, the amount of money the CSU System invests in remedial education is by any measure sizable.

The CSU System Board of Trustees, in response to the remedial education dilemma, proposed shifting all of its remedial education to the community colleges insofar as so many remedial courses "threaten[ed] the value of a CSU diploma" (Gallego, 1995, p. 3). When the CSU System Trustees' plan failed to be supported by the California community colleges and other educational leaders, alternatives were considered. One suggestion was to deduct part of the cost of university remedial courses from state aid to state-supported high schools (Kirst, 1997). In responding to the overwhelming numbers of students in remediation, CSU System officials proposed and adopted a comprehensive remedial education program that focused on identifying and correcting the problem at the secondary level. The need for remedial education would be identified and remedied before students moved to one of the campuses.

Early Assessment Program

The Early Assessment Program (EAP) is a collaborative effort among three California state entities: the CSU System, the California Department of Education, and the California State Board of Education. The goal of the EAP is to "ensure that college-bound high school graduates have the English and mathematics skills expected by the state university" (CSU, n.d. b). The EAP seeks to remedy the remedial education problem by providing California high school students with an early indication of whether they are ready for college-level coursework in English and mathematics. EAP tests are taken in the spring semester of 11th grade as part of California's public school testing and accountability system. The augmented EAP tests have been developed by teams of CSU and K–12 public school instructors; the teams have spent a considerable amount of time assessing the validity and reliability of the test. The CSU System Board in 2008 also asked them to undertake a more extensive assessment (CSU, 2008a). Both groups of instructors ensure that the California high school standards and the CSU System placement standards are covered in the exams. The English and math sections of the EAP are composed of an additional 15 questions; the English section also includes an essay (CSU, 2006).

All 11th grade students attending public high schools in California receive a letter in the winter of their junior year that invites them to take the optional EAP English and mathematics tests later that semester when they take the mandatory high school standards tests. Of the 461,682 11th grade students who took the mandatory state standards exams in spring 2007, 342,348 of them participated in the English EAP. Eighty-three percent (282,775) of the test-takers were notified that they did not demonstrate readiness in college English (ETS, n.d) (Table 1).

Early Assessment Program (EAP) Results, 2007

Reported California Standards Test (CST) Enrollment in Grade 11: 461,682			
	EAP	CST	Participation Rate
Students Tested	342,348	440,763	78%
Ready for College	55,206 16%		
Did Not Demonstrate College Readiness on this Assessment	282,775 83%		

Source: Educational Testing Service (ETS). (n.d.). *Early assessment program (EAP) 2007 test results*. Retrieved October 2, 2007, from http://eap.ets.org/eap2007/viewreport.asp

Students find out if they passed the EAP in the summer between the 11th and 12th grades. If a student demonstrates readiness on the EAP English section, the student is excused from taking further placement tests upon admission to a CSU campus. Everyone else will have to take a placement exam after they are admitted. In order to prepare for the placement test, the letter the student receives suggests they enroll in additional English (or math) courses. One possibility is a specially designed English class by CSU faculty and high school teachers, but very few schools offer the class (CSU, n.d. c). Additional options that students might utilize are to take an Advanced Placement (AP) or honors course in their school. Students also may make use of the CSU System Web site and work on various online preparation exercises (CSU, n.d. b).

The potential of the program is significant. If the EAP is a framework for success, then the implications are significant for all of American higher education. Indeed, prestigious foundations such as the Lumina Foundation, as well as the United States Department of Education, already have touted the program as a model to be emulated even before results have been shown. A recent issue of *Focus* magazine, for example, stated that the EAP "is playing a huge role in helping [students] realize [their] dream [of earning a college degree]" (Lumina Foundation, 2007, p. 4). Further, "EAP is expected to have a huge and positive impact on the state's public higher education institutions and the students they serve" (p. 5). The Institute of Education Sciences (IES) identifies the EAP as one of its "programs, practices, and policies that are effective for improving access to or persistence in postsecondary education" (2007, p. 44). In her remarks at the 2006 U.S. University Presidents Summit on International Education, U.S. Secretary of Education Margaret Spellings encouraged postsecondary institutions to work more closely with state and local school officials to implement early assessment programs like EAP. The Campaign for College Opportunity (2007) cited EAP as a "practice with promise . . . [that is] remarkable" (p. 2). These statements, however, are based on very little data. Our purpose here is to bring into question whether students who are notified early of their non-readiness for college-level coursework are at any advantage to their counterparts who do not partake of the program and are admitted to the CSU.

Good Intentions: Analyzing the Early Assessment Program

Described as a "promising collaborative . . . between K–12 and postsecondary systems" (Callan, Finney, Kirst, Usdan, & Venezia, 2006, p. 8), the EAP is unique in that it attempts to remedy the under-preparedness of college freshmen by informing high school students of their readiness for college-level work before they have submitted college and university applications. In theory, early notification provides students with ample time to get ready for college-level work. Early notification also provides incentives for students who are and are not prepared for CSU-level work. For those who pass the EAP, they will not have to bother with any additional English placement exams. For those who are not prepared, they have a more clearly defined goal in preparing for college-level work, and the path to that goal presumably is clear.

However, a student who is not ready for English college coursework can only prepare for college-level work as best as possible given the resources of one's respective high school. The high schools where low-income students attend in general do not provide the courses necessary to enable potential remedial college students to overcome their English deficiency. The only certain preparation for students not ready for CSU-level English coursework is to review the online materials offered to all students. Presumably, the materials will help the individual pass the university placement exam, allowing for placement and subsequent enrollment in college-level English.

According to the CSU System EAP Web site, the EAP serves all stakeholders (students and the citizens of California) by ensuring that CSU-bound students are being well-prepared for college coursework. Students "get an early wake-up call about their preparedness for college" while "citizens of California can be sure that required high school standards and tests are meaningful, have consequences, and connect to readiness for college" (CSU, n.d. b). Most importantly, all Californians "can know that the state's resources are being used wisely" in the education of its youth (CSU, n.d. b).

The program's ambitious goals, however, face several hurdles and, at present, there is virtually no evidence that the specific goals of the program are successful in any significant manner. In the junior year in high school, every 11th grade student (as well as teachers, counselors, superintendents, and others) receives a letter encouraging the student to take the English EAP. Although students take the exam, as noted above, over 80% fail it, and there is no evidence that the failure is a "wake-up call" that enables remediation to lessen in the CSU.

Two problems exist. First, the courses that students are encouraged to take are frequently not available, or they conflict with other required courses that students need to take, or they are simply classes these students would have taken anyway. Students who are not ready for CSU-level English coursework may prove readiness by submitting a qualifying score on an approved standardized exam. Qualifying scores

include: (a) a score of 550 or higher on the critical reading section of the SAT Reasoning Test; (b) a score of 24 or higher on the ACT test; (c) or a score of 3 or higher on the Advanced Placement (AP) Language & Composition or Literature & Composition tests (CSU, 2008b). For students who cannot provide these scores, CSU System officials suggest they take the CSU-developed course that is not widely available, or an existing high school English course (e.g., Senior English, British Literature, AP English Literature) (CSU, 2008b). Parenthetically, one might wonder about the advisability of conducting remediation in Advanced Placement classes.

The result is that there has been no diminution in the number of students who take remedial English courses as college freshmen, and no decrease in the monies the state spends on remedial education. Indeed, insofar as the entire Early Assessment Program costs additional resources, the CSU System now spends more resources on remedial education than they did prior to the implementation of the EAP. The best that can be claimed is that some students learn about one year prior to admission to a CSU campus that they are college-ready. For those who are not college-ready, they remain where they were prior to having taken the exam—underprepared for college. At a minimum, the EAP has not yet succeeded in helping the CSU System Board of Trustees meet its goal of 90% proficiency by 2007 (Admission & Enrollment Updates, 2004).

The 2007 EAP results underscore an unfortunate truth in California secondary education: The majority of students who are considering enrolling in the CSU after high school are not ready for CSU English instruction. And those students who are not ready for the CSU work have less than a year to catch up to their CSU-ready peers. While the university gives all underprepared students options about what they can do to remedy their deficiencies, the vast majority of the students are directed to rely on the same secondary schools and personnel that left them underprepared in the first place for assistance in catching up. Most of the course options that students have to learn the appropriate skills are the same courses (regular, honors, AP) they would have enrolled in during their senior years regardless of their performance on the EAP. Even for those students who are able to take the limited number of CSU-developed courses at their high schools, there is still no evidence, much less a guarantee, that they will be able to catch up and learn the necessary reading and writing skills to pass the placement exam after they have been admitted (CSU, n.d. c).

Students who are not ready for college-level English fall into two different general groups. The first group of students will receive some sort of formal and directional counseling from high school teachers or counselors or from a CSU-campus official. These students receive advice about how to prepare for the placement test besides the practice exams found on the CSU Web site. Also, campus-specific EAP offices may do extra outreach and programming within their local service areas, targeting students identified as not ready by the EAP test. Students who receive these types of services and counseling have the benefit of informed and targeted guidance and instruction.

The second group of students receives no additional advice or support after taking the EAP. These students have to rely on the placement test practice exams available on the CSU English preparation Web site, and their English instructors at their high schools. Realistically, a student may not even investigate the CSU System Web site for further information. Nevertheless, the students who receive no extra guidance or counseling are in the same situation as if they had never taken the EAP.

To be sure, the leaders in the CSU System should not be faulted for making a concerted effort to resolve a problem that shortchanges some of California's citizens of educational opportunity, and costs all California taxpayers monies that would be better spent on college-level work. Those in a postsecondary system also should be applauded when they actively involve the institution in the secondary system in a collegial manner that ostensibly helps prepare students for college-level work. However, in addition to the lack of evaluative measures, several problems plague the project that has been developed and suggest that significant shifts need to be considered, not the least of which is to suspend the extensive accolades the EAP has gotten based on sketchy evidence that it has been successful.

Testing the Obvious

First, the exam in large part states the obvious. One need not conduct a test in the second semester of 11th grade to predict which schools will have significant numbers of students who will fail the test. One component of the process is to offer help to teachers of students who fail the exam, but again, anyone who works in the public schools in the inner-cities of California knows that teachers need help without having to make students take yet another exam. Is administering a test—which costs extra time, effort, and money in administering, grading, and reporting—worth the effort if the outcomes are already known and the solutions to be proffered are either unavailable or redundant with what will be done?

Delivering the Message

Second, the viability of the program is predicated on delivering a depressing—albeit truthful—message to students that they are not ready for college-level work. The language used in the messages, however, is overly bureaucratic and not aimed at an 18-year-old audience. The notification the students receive is rudimentary and vague. The online report students access simply states that the student's "English skills are not yet sufficiently strong to succeed in required college English courses" (CSU, 2008b).

When students access the CSU System's preparation Web site for more information, they are provided with few concrete steps that they might take other than what they would do anyway (e.g., take senior-level English). Imagine if a medical doctor sent a confusing message to a patient stating that he or she had cancer and then proposed no remedy, or any remedy that was proposed either the patient had intended to do, or was unable to do. There is also no evidence on whether a student takes any action after having received the message.

Solving the Problem

One response to the issues discussed here is to revert to previous years and cancel the EAP. Although the benefit is an immediate savings of time, effort, and money, the problem of underpreparedness will remain. Indeed, the CSU System Board currently (in 2008) is reviewing yet another resolution calling for regularly-admitted first-time freshmen to be ready to take college-level English and mathematics. The

resolution focuses on the EAP as the major solution (CSU, 2008a). The resolution also highlights "the great success of the Early Assessment Program" and touts it as a "model" that is predicated on the need for students and their families to have more information (pp. 13–14). Although one cannot quarrel with the benefit of information, what we are suggesting is that there is little evidence that the EAP has been a "great success." Simply providing information to individuals without adequate support structures is a placebo rather than a solution.

An alternative is for those in the CSU System and other postsecondary institutions to more directly involve themselves with high schools by offering a course between the junior and senior year and another one after senior year aimed at improving the writing skills of those students who need it. One of the architects of the EAP has called for the "better use of the senior year" (Spence, 2007, p. 114). From this perspective, the importance of an assessment is minimal when compared with the need for actual courses that improve writing before, during, and after a student's senior year. Such courses have to have pre-tests and post-tests that ensure student improvement. The point here is simple: to prepare students for college-level writing, postsecondary institutions need to offer classes that equip students with the skills for college-level writing.

Conclusion

Proportionately low enrollment numbers of underrepresented and low-income students in postsecondary schools pose a difficult problem for American higher education. In an era of globalization and high competition, more high school graduates need to be prepared for postsecondary education. Unfortunately, high-quality instruction and learning is often lacking at low-performing urban high schools where student test-takers fail exams such as the EAP. Even if the EAP notifies these students at the beginning of their senior year of high school that they are not ready for college-level work, leaving them on their own to find the quality instruction they need to become college-ready is ineffective. Rather than ask teenagers to fend for themselves after they have flunked an exam, what needs to be done is to be more focused on the kinds of services that are provided.

If the Early Assessment Program cannot assure that underprepared students are adequately prepared for CSU-level work by the beginning of their freshmen year of college, then there is no significant incentive for 11th-grade students to participate in the EAP. Further, there is no tangible benefit for the citizenry to continue to support a program with tax dollars that does not significantly help in remedying the remedial education problem in California. A step in the right direction is to shift the focus from generic assessments to actually offering courses before, during, and after 12th grade that enable students to improve their writing.

References

Adelman, C. (1996, October 4). The truth about remedial work (Point of view). *The Chronicle of Higher Education*, p. A56.

Adelman, C. (1998). The kiss of death? An alternative view of college remediation. *National Crosstalk, 6*(3), 11.

Admission & Enrollment Updates (2004). Math and English proficiency of CSU freshmen holds steady. *CSU Review, 25*(1). Retrieved April 28, 2008, from http://www.calstate.edu/SAS/CSUreview/2_04aeu.shtml

Attewell, R., Lavin, D., Domina, T., & Levey, T. (2006). New evidence on college remediation. *The Journal of Higher Education, 77*, 886–924.

Boylan, H. R., Bonham, B. S., & White, S. R. (1999, Winter). Developmental and remedial education in postsecondary education. *New Directions for Higher Education,* (108), 87–101.

Breneman, D. W., & Haarlow, W. N. (1998). Remedial education: Costs and consequences. In *Fordham Report: Volume 2*(9). *Remediation in higher education: A symposium* (pp. 1–50). Washington, DC: Thomas B. Fordham Foundation.

California Legislative Analyst's Office. (2006). *Cal facts 2006: California's economy and budget in perspective*. Sacramento, CA: Legislative Analyst's Office. Retrieved January 10, 2008, from http://www.lao.ca.gov/2006/cal_facts/cal_facts_2006.pdf

California Postsecondary Education Commission. (2005a). *University eligibility study for the class of 2001*. Sacramento, CA: California Postsecondary Education Commission.

California Postsecondary Education Commission. (2005b). *University preparedness of public high school graduates*. Sacramento, CA: California Postsecondary Education Commission.

California State University. (n.d. a). *California State University new students (duplicated) applications and admissions by campus and student level, fall 2006*. Retrieved July 28, 2007, from http://www.calstate.edu/as/stat_reports/2006-2007/apps-fall06.htm

California State University. (n.d. b). *The early assessment program: Helping high school students meet college expectations in mathematics and English*. Retrieved July 28, 2007, from http://www.calstate.edu/eap/documents/eap_program_description.pdf

California State University. (n.d. c). *Expository reading and writing course*. Retrieved September 19, 2007, from http://www.calstate.edu/eap/englishcourse

California State University. (n.d. d). *High school subject requirements*. Retrieved October 31, 2007, from http://www.csumentor.edu/planning/high_school/subjects.asp#lote

California State University. (2006). *California State University EAP augmentation of STAR standards*. Retrieved September 19, 2007, from http://www.calstate.edu/eap/augmentation.shtml

California State University. (2007a). *California State University fall 2005 freshman proficiency at entry (fall 2005) and one year later (fall 2006)*. Retrieved September 19, 2007, from, http://www.asd.calstate.edu/remrates/05-06/systemwide.htm

California State University. (2007b). *California State University fall 2006 regularly admitted first-time freshmen remediation campus and system wide*. Retrieved July 28, 2007, from http://www.asd.calstate.edu/remediation/06/Rem_Sys_fall2006.htm

California State University. (2008a). *Access to excellence: Revised committee draft, February 2008*. Retrieved May 8, 2008, from http://www.calstate.edu/acadaff/System_Strategic_Planning/draft-revised.shtml

California State University. (2008b). *English placement test (EPT) requirement*. Retrieved May 8, 2008, from http://www.csumathsuccess.org/students_esw

Callan, P. M., Finney, J. E., Kirst, M. W., Usdan, M. D., & Venezia, A. (2006). *Claiming common ground: State policymaking for improving college readiness and success* (National Center Report #06-1). San Jose, CA: National Center for Public Policy and Higher Education.

Campaign for College Opportunity. (2007). *Practices with promise: A collection of working solutions for college opportunity* (Executive Summary). Oakland, CA: Author.

Dougherty, K. (1987). The effects of community colleges: Aid or hindrance to socioeconomic attainment? *Sociology of Education, 60*, 86–103.

Educational Testing Service (ETS). (n.d.). *Early assessment program (EAP) 2007 test results*. Retrieved October 2, 2007, from http://eap.ets.org/eap2007/viewreport.asp

Gallego, A. P. (1995). Another look at the remedial role. *Community College Times, 7*(17), 3.

Grubb, W. N. (1991). The decline of transfer rates: Evidence from national longitudinal surveys. *Journal of Higher Education 62*, 194–217.

Grubb, W. N., & Oakes, J. (2007). *'Restoring value' to the high school diploma: The rhetoric and practice of higher standards*. East Lansing, MI: The Great Lakes Center for Education Research & Practice.

Gumport, P. J., & Bastedo, M. N. (2001). Academic stratification and endemic conflict: Remedial education policy at CUNY. *The Review of Higher Education, 24*, 333–349.

Hoyt, J. E., & Sorensen, C. T. (1999). *Promoting academic standards? The link between remedial education in college and student preparation in high school*. Orem, UT: Department of Institutional Research and Management Studies, Utah Valley State College.

Institute of Education Sciences. (2007). *Education research grants* (Request for applications no. IES-NCER-2008-01). Washington, DC: Institute of Education Sciences, U.S. Department of Education.

Kirst, M. W. (1997). Exam confusion: Admissions and placement tests lack standardization. *National Crosstalk, 5*(1), 3.

Kirst, M. W. (1998). *Improving and aligning K–16 standards, admissions, and freshman placement policies.* Stanford, CA: National Center for Postsecondary Improvement.

Lavin, D., Alba, R., & Silberstein, R. (1981). *Right versus privilege: The open admissions experiment at the City University of New York*. New York: Free Press.

Long, B. T., & Riley, E. K. (2007). Sending signals to students: The role of early placement testing in improving academic preparation. In N. Hoffman, J. Vargas, A. Venezia, & M.S. Miller (Eds.), *Minding the gap: Why integrating high school with college makes sense and how to do it* (pp. 105–112). Cambridge, MA: Harvard Education Press.

Lumina Foundation. (2007, Winter). A changing picture: California effort focuses on early intervention and high school-college alignment. *Focus*, 2–7.

Merisotis, J. P., & Phipps, R. A. (2000). Remedial education in colleges and universities: What's really going on? *The Review of Higher Education, 24*, 67–85.

Mills, K. (2004). Preparing for success in college: California State University is working closely with high schools to improve English and math skills. *National Crosstalk, 12*(4), 6–7.

Parsad, B., & Lewis, L. (2003). *Remedial education at degree-granting postsecondary institutions in fall 2000* (NCES Publication No. NCES 2004–010). Washington, DC: National Center for Education Statistics, U.S. Department of Education.

Redden, E. (2007, May 16). 'College prep' without 'college' or 'prep.' *Inside Higher Education*. Retrieved July 15, 2007, from http://www.insidehighered.com/news/2007/05/16/act.

Ruppert, S. S. (1996). *The politics of remedy: State legislative views on higher education*. Washington, DC: National Education Association. (ERIC Document Reproduction Service No. ED391445).

Shaw, K. M. (1997). Remedial education as ideological battleground: Emerging remedial education policies in the community college. *Educational Evaluation and Policy Analysis, 19*, 284–296.

Spellings, M. (2006). Speech presented at the U.S. University Presidents Summit on International Education on January 6, 2006, in Washington, D.C. Retrieved October 17, 2007, from http://www.ed.gov/news/speeches/2006/01/01062006.html

Spence, D. (2007). The California early assessment program: Implications for states in developing readiness agendas. In N. Hoffman, J. Vargas, A. Venezia, & M.S. Miller (Eds.), *Minding the gap: Why integrating high school with college makes sense and how to do it* (pp. 113–120). Cambridge, MA: Harvard Education Press.

University of California (n.d. a). *University of California analytical writing placement exam data*. Retrieved January 16, 2008, from https://uasother.ucop.edu/cgi-bin/awpe/results.pl

University of California (n.d. b). *University of California subject requirement (A–G coursework)*. Retrieved July 15, 2007, from http://www.universityofcalifornia.edu/admissions/undergrad_adm/paths_to_adm/freshman/subject_reqs.html

Wirt, J., Choy, S., Gerald, D., Provasnik, S., Rooney, P., Watanabe, S., et al. (2001). *The condition of education 2001* (NCES Publication No. NCES 2001–072). Washington, DC: National Center for Education Statistics, U.S. Department of Education.

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Black and Blue: The Impact of Nonfatal Teacher Victimization

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Article

Abstract: *Because violence in public schools is seen by many as a growing problem, several studies have been conducted to look at the impact of nonfatal teacher victimization. However, a large number of these studies have focused exclusively on students as victims and failed to investigate the impact that school-related crime has on school personnel. The review of the literature indicated that (a) the lack of a definition for violence can be problematic, (b) school violence is either steady or declining, (c) urban areas are more profoundly affected than suburban or rural areas, (d) perceptions and acts of violence are two different constructs that both evoke strong reactions, and (e) efforts to determine students' potentiality for violence against faculty is in its early stages.*

Introduction

School crime and violence is not exclusively directed toward other students. Teachers and other staff members are also frequently the objects of verbal threats and physical assaults. Kaufman et al. (2001) found that between the years 1994 and 1998 there was an average of 83 reported incidences of violence per 1,000 teachers. Another researcher found that between 1996 and 2000, teachers reported being the victims of 1,603,000 nonfatal school crimes or about 321,000 crimes per year (Devoe et al., 2002); these incidences ranged from verbal and swearing to physical manifestations of aggression. Among the more serious offenses have been reports of rape, sexual assault, robbery, and aggravated assault.

Violence in public schools is not simply an American phenomenon; it is also an international one (Bon, Faircloth, & LeTendre, 2006). Although some current research data tends to indicate that there has been an overall decline in the number of student victims of school-related crimes occurring between 1995 and 2000, there are still heightened levels of concern by the general public regarding school violence (Devoe et al., 2003). Perhaps this desire to understand these phenomena of school violence has been driven, in part, by the intense media coverage and the dramatic nature of the crimes themselves. Prior to school attacks, such as those that occurred in Colorado, Florida, and Tennessee, schools in this country were historically viewed as relatively safe places for learning. Although the prevalence of such violent incidents as well as those reported to the police vary by the levels and sizes of the schools, typically the most frequently reported episodes have occurred in large overcrowded urban school districts that lacked strong leadership and in which there was a noticeable level of gang activity (Reddy et al.,

2001). These incidences have generally involved male-on-male physical altercations and did not include the use of any types of weaponry (Reddy et al., 2001).

Trying to comprehend the impact of violence in an educational setting is often confusing due to operational constructs that are used by the researchers to define the behavior. For example, in one study, researchers found that the majority of the teachers responding to a questionnaire designed to solicit their definitions of teacher violence indicated that teachers had a preference for categories that included both verbal and physical threats (Bon, et al., 2006). These same respondents further extended this definition to include unsafe conditions when experienced either mentally or physically. However, Henry (2000) reported that by delimiting such a myopic view of physical violence that is based only on interpersonal relationships between either student and student or student and teacher, researchers were failing to comprehend the wider and more meaningful context in which all school violence can occur and should be examined. Flannery and Singer (1999) further advocated that violence should be viewed along a continuum because violence in primary grades may appear totally different than violence in secondary grades.

Failure of a precise definition can also have a variety of implications. For example, confusion over a definition is evident in a school principal's survey conducted by the National Center for Education Statistics (NCES) and entitled the *Principal/School Disciplinarian Survey on School Violence* (Heaviside, Rowand, & Farris, 1998). Because these researchers chose to define "serious crimes" for the purpose of their study as only those involving "murder, rape, or other types of sexual battery, suicide, physical attack, or fight with a weapon, or robbery," (Heaviside et al., 1998, p. iv) all other categories of physical assaults

conducted without a weapon were excluded from the findings. By using such a restrictive definition for defining violence, the results of certain serious criminal acts could not be included for reporting purposes. One example of this reporting limitation is that if an individual was the victim of a violent episode, regardless of the severity, and if the assault occurred only with the implementation of physical blows or kicks, these incidents would have been excluded from the study.

The purpose of this article is to examine the impact of nonfatal teacher victimization. Specifically, we will address the literature related to the reporting of school violence and how the perception of school safety affects personnel, with an emphasis on urban settings. Finally, current material is also reviewed to determine what, if any, universal threat assessments can be made in an attempt to provide early and appropriate interventions to violence directed at teachers.

Reporting School Violence

One key feature in attempting to understand the effects of school violence is to initially attempt to discover the extent of the problem. Prior to 1980, few comprehensive statistical sources of school data existed. Driven by a rise in crimes and particularly by youth homicides, research into school violence began to expand (Furlong & Morrison, 2000). Government data sources such as the *Annual Report on School Safety*, *Indicators of School Crime and Safety*, the *Digest of Education Statistics*, and the *Youth and Risk Behavior Survey* are a few of the recent additions to the U. S. Department of Justice's annual crime reporting instruments: the *National Crime Victim Survey* and the *Uniform Crime Reports*. Currently, however, most research findings on teacher and student victimization rates as well as overall rates for school crime uses the operational definition for violence as provided by the *National Crime Victim Survey* (Honawar, 2008). Although one key feature of this self-reporting survey is that serious violent crimes are categorized as those that may occur with or without the use of a weapon, an earlier problem noted in some research methodology—the commonly used self-reporting instruments as the only means of measuring school violence—may in itself be problematic (Furlong, Morrison, Austin, Huh-Kim, & Skager, 2001).

As discussed previously, operational definitions may be vague or unclear, and incidences of school violence may be unreported or underreported by administrative personnel who could possibly face disapproval from their supervisors and the community in which the schools exist (Heaviside et al., 1998). The only incentive for keeping rigorous data that is required by the federal government and whose sanctions can include the loss of federal funds is the accurate reporting of the number of students that are expelled for the possession of firearms (Kingery & Coggeshall, 2001). Other concerns that researchers have also linked to reporting irregularities included (a) a code of silence among students and staff members, (b) observed infractions that are not always transferred to written reports, (c) too few external audits, and (d) inadequate training for staff members that are often the product of written manuals and not the results of behaviorally rehearsed modules that can offer participant feedback. These are but a few of the plethora of problems cited by the researchers (Crosse, Burr, Canton, Hagen, & Hantman, 2001; Furlong et al., 2001; Heaviside et al., 1998; Kingery & Coggeshall, 2001).

Of equal importance are the concerns that have been raised by researchers about the use of self-reporting instruments' proclivity to provide only population-based rates of selected behaviors as they relate specifically to school safety (Yogan & Henry, 2000). Although population rate surveys are a prime source of quantifiable data and should be continued, as presently constructed, they often fail to adequately provide the researchers with much needed additional rich qualitative information such as under what conditions and context did the incidents occur? Researchers have long held the belief that by further studying the associated phenomena of school condition, context, and violence, they may be able to provide potential insight in trying to ascertain underlying causes for school violence. Yet regardless of the methodology to measure school violence, any level of reported school violence by society is considered unacceptable.

Perceptions of School Violence

But are schools really out of control and is violence at epidemic proportions? Even though one study found that teachers were three times more likely to be victims of violent crimes at school than are their students, the general level of violence reported against employees in this same study was relatively low (Kondrasuk, Greene, Waggoner, Edwards, & Nayak-Rhodes, 2005). Nonetheless many school employees felt that they were in imminent danger in public schools. One survey revealed that 27 % of teachers indicated that dealing with aggressive student behavior accounted for a significant portion of their instructional time (Crosse et al., 2001) while another study indicated that approximately 24 % of teachers consciously avoided one or more specific areas where they were employed out of concern for personal safety (Heaviside et al., 1998). The paradox of the statistically low level of nonfatal teacher victimization and teachers' fears of danger generally lies in the media portrayal of school safety issues.

People, including school personnel, judge the level of school violence as reported by mass media outlets. Closely connected with the source of information is a psychological construct that Tversky and Fox (1995) call "bounded subadditivity." Simply stated, "bounded subadditivity" is a cognitive process that causes the individual to believe that an increase in the probability that the likelihood of an event will occur in the future. It is impacted by the actual occurrence of past events that were once thought of as impossible. Inaccurate, misleading, incomplete, or salacious information tends to significantly affect decisions made.

When applied to the perception of school violence, the number and nature of school shootings has significantly altered our view of overall school safety. Perhaps adding to the public's growing fears of school violence was the shattering of long-held beliefs by recent school tragedies that school crimes were primarily the results of and generally occurred in criminally-ridden, poverty-affected, socially disorganized neighborhoods that seemed to engender inner-city schools with high rates of ethnic and racial minority students. Yogan and Henry (2000) argued that the suburban location of the shooting sprees such as those that occurred in Littleton, Colorado, and Springfield, Oregon, have significantly affected the public's overall view of school safety. Furthermore, the race of both the perpetrators and victims also served to dispel long-held stereotypes about characteristics of school violence. Table 1 provides an overview of

Summary of 1990s School Violence Trends

Violence-Related Behaviors	Findings and Trends	Comment
School-associated violent deaths are declining (Stephens, 2000).	78.2 % decrease from 1992 – 1993 (55 deaths; first year data available) through 1999-2000 (12 deaths).	This includes suicide and all violence-related deaths on school campuses regardless of the day or time of act. Several of the acts involved adult-generated behaviors and adult victims (e.g., spouse shooting their teacher-wife on the school campus).
Physical fights on school property are declining (Brener, Simon, Krug, & Lowry, 1999; YRBS, 1995, 1996, 1998, 2000).	Physical fights on school property in past 12 months have declined by 12.3 % 1993: 16.2 %; 1995: 15.5 % 1997: 14.8 %; 1999: 14.2 %	Rates by gender, racial/ethnic identification, and grade level have all been stable or decreasing. Hispanics reported an increase in physical fights (15.7 % in 1999).
Possession of any weapon on school property is declining (Brener, Simon, Krug, & Lowry, 1999; YRBS, 1995, 1996, 1998, 2000).	Any weapon possession in past 30 days has declined by 41.5 %. 1993: 11.8 %; 1995: 9.8 % 1997: 8.5 %; 1999: 6.9 %	Rates by gender, racial/ethnic identification, and grade level have decreased. Weapon possession at school is down for Black and White males.
Weapons are carried more often in the community than on school property (Brener, Simon, Krug, & Lowry, 1999; YRBS, 1995, 1996, 1998, 2000).	Weapons are carried two times more often in the community than on school campus. Carried in Community 1997: 18.3 %; 1999: 17.3 % Carried at School 1997: 8.5 %; 1999: 6.9 %	Weapon possession in the community and at school has declined steadily since 1991. Youth are exposed to more violence-related behaviors and experiences in the community than at school.
Level of concern about school safety is low and stable (Brener, Simon, Krug, & Lowry, 1999; YRBS, 1995, 1996, 1998, 2000).	About 1 in 20 students report they stayed home in the previous 30 days because of safety concerns at school and/or going to/from school.	Concern about safety at school is not prevalent (Furlong, Morrison, Bates, & Chung, 1998) and it declines with age (Coggeshall & Kingery, 2001).
Males are more involved in school associated violence (Brener, Simon, Krug, & Lowry, 1999; YRBS, 1995, 1996, 1998, 2000).	Physical fight on school property in past 12 months: 18.5 % males vs. 9.8 % females. Any weapon possession in past 30 days: 11.0 % males vs. 2.8 % females.	School violence surveys have favored overt physical behaviors and have not attended to patterns of behavior and aggression that might be more common among females (e.g., relational aggression).
Violent behaviors vary by grade level (Brener, Simon, Krug, & Lowry, 1999; YRBS, 1995, 1996, 1998, 2000).	Physical fights on school property in past 12 months: 18.6 % 9th grade; 17.2 % 10th grade; 10.8 % 11th grade; 8.1 % 12th grade Any weapon possession in past 30 days: 7.2 % 9th grade; 6.6 % 10th grade; 7.0 % 11th grade; 6.2 % 12th grade	One hypothesis is that violence-related behaviors decline with age because of the students' increased maturity and because high-risk youths are more likely to drop out, be expelled, or enroll in an alternative school setting.

Note: From "Using Student Risk Factors in School Violence Surveillance Reports: Illustrative Examples for Enhanced Policy Formation, Implementation, and Evaluation" by M. Furlong, G. Morrison, G. Austin, J. Huh-Kim, & R. Skager, 2001, Law and Policy, 2, pp 274-275. Copyright Michael Furlong, University of California, Gervitz Graduate School of Education. Adapted with permission.

some of the research findings that tends to indicate a decade trend in the decline of overall school violence for the period of 1990-2000 (Furlong et al., 2001).

Effects of Violence on School Personnel

According to a National Center for Education Statistics (NCES) report (Devoe et al., 2003), most violent incidents with school personnel were related to some form of a physical altercation. Individuals who may have been the victims of such attacks may suffer from what Bloch (1976) described as the "battered teacher" syndrome. This disorder is characterized by a combination of symptoms that can include but are not limited to episodes of depression, heightened rates of blood pressure, insomnia, and headaches. In addition to the apparent physical trauma that is associated with being assaulted, many educational personnel are unable to adjust psychologically and ultimately choose to leave the teaching profession altogether (Elliot, Hamburg, & Williams, 1998). Even for those employees that had been previously victimized but decided to remain in their career choice, the experience can have profound professional affects. Some of the significant ramifications noted in teachers who have been victims of nonfatal violent attacks in school settings include increased absenteeism, decreased or strained interpersonal relationships with students, and an overall interruption of the quality of their teaching which has negatively impacted both the educational experience of the student and the entire educational process (Ting, Sanders, & Smith, 2002).

The cumulative effects of nonfatal teacher victimization have also been closely aligned to attitudes regarding workplace conditions and have resulted in high rates of teacher attrition (Darling-Hammond & Sykes, 2003; Ingersol, 2001; Williams, Winfree, & Clinton, 1989). Although estimates as to the exact number of teachers who have left the profession vary, the resulting impact of the high turnover rates leaves little doubt (Colley, 2002; Darling-Hammond & Sykes, 2003). High rates of teacher turnover seriously limit an already overburdened educational system's ability to facilitate productive learning environments, are disruptive to building staff cohesiveness and unity, and negate the effectiveness of ongoing programming continuity. The loss of staff members also impacts the district's limited finances by causing many valuable and needed resources for existing programs and services to be diverted to new hires with associated costs such as recruitment efforts, substitutes, and additional professional development (Benner, 2000). Although there is strong evidence that teacher turnover rates are highest among new teachers (Plecki, Elfers, Loeb, Zahir, & Knapp, 2005) and that many novice teachers experience violence early in their respective careers (Kondrasuk et al., 2005), no studies linking the two could be found for this literature review.

Research has also revealed that another concern associated with working conditions and school violence is the major impact that it is having on staffing shortages, particularly in urban school settings. Nationally, teacher attrition rates have been reported to be as high as 50% in high poverty areas when compared to more affluent school areas (Allen, 2005). Compounding the problem is that school working conditions and student characteristics are often highly correlated, as a result, many teachers choose not to work with low-income, minority, and low-performing students due to the perceived working conditions that are associated with these students, generally found in large urban

districts (Blazer, 2006). Similarly in Texas, researchers found that suburban probationary teachers who experienced problems on the job were more likely to transfer within the district while their urban counterparts were more likely to leave the teaching profession altogether (Hanushek, Kain, & Rivkin, 2001). Furthermore Horng (2005) found that clean and safe schools were of more importance to teachers than a student's ethnicity, socioeconomic status, performance, or an additional $8,000 in salary.

Threat Assessments

Although the knowledge of accurate threat assessment is in the early stages, several useful components have been developed (Morrison & Skiba, 2001; Reddy et al., 2001). First, violent episodes are rarely the result of a single spontaneous act. Usually, there are early warning signs that all school personnel must learn to accurately translate into a possible threat potential continuum. By developing a comprehensive threat assessment approach to school violence, some researchers have shown a decrease in the number of reported incidences of school-related violence (Cornell et al., 2004). On the other hand, some researchers argue that there are currently no empirically accurate sets of early warning signs or student profiles that have been shown to accurately predict a student's potential for a violent episode (Morrison & Skiba, 2001; Reddy et al., 2001). However, some previously conducted studies have shown that some commonalities in serious perpetrators of violence can be identified and have included prior victimization by bullies; alternating episodes of depression and anger; and strong familial, social and psychological factors (O'Toole, 2000; Vossekuil, Fien, Reddy, Borum, & Modzeleski, 2002). Yet, they also argue that because these traits are so common in varying degrees in a number of students, they should not be used to exclusively identify potentially violent students.

Next, even though a threat may be conveyed verbally, written, or symbolically, Rappaport (2004) has concluded that those attempting to conduct a threat assessment must do so while trying to determine if the student has the resources, intent, and motivation to carry out their intention. To aid in this process, Cornell (2006) uses the terms transitive and substantive to illustrate the process of delimiting the differences in both the likelihood and response to threats that have been made. He defines transitive threats as those that are normally the immediate expressive results of frustration or anger, or in some cases inappropriate attempts at humor, that seems to dissipate quickly and are generally spontaneous in nature. In contrast, substantive threats are viewed as being sustained long after the initial threat was made, and they have several distinguishable characteristics. They are either repeatedly conveyed to the intended victim(s) or communicated to a number of people and are usually very detailed in nature. They appear to be the end result of or in the process of detailed planning, and other individuals are routinely solicited to either become active participants or audience members. Also, there is generally some tangible physical evidence that exists of the perpetrators' intent to carry out their threats (Cornell, 2006; O'Toole, 2000).

In addition, some of the statistical literature suggests that profiles of previous criminal acts may indicate discernable patterns of nonviolent teacher victimization that may assist in future threat assessments by determining the potential for becoming a victim. Overall,

urban schools had a somewhat higher reported rate of student violence than at suburban schools, and it was three times higher than in rural schools (77%, 67%, and 28%, respectively; Devoe, et al., 2003). Specifically, urban teachers were more likely to be the victims of violent crimes than suburban teachers (28% vs. 13%) and than rural teachers (28% and 16%). Male teachers were more likely than female teachers to be the victims of violent crimes at a reported rate of 10:1, and black teachers were more likely to be the victims of crimes than white teachers. Although secondary school teachers were reported to be more likely than elementary teachers to be threatened with a form of physical assault, elementary teachers were reported to have more likely been the actual victims of physical assaults.

Finally, teachers in their daily roles and subsequent close proximity to students are an invaluable resource to early identification and intervention efforts of violence perpetrated by students (Gelfand, Jenson, & Drew, 1997). However the way teachers perceive, process, and react to any form of school violence could have significant implications for the overall school climate, perceptions of school safety concerns, and in some cases, actually induce an increase in the student's aggressive behaviors (Behre, Astor, & Meyer, 2001). For example, Beck and Clark (1997) found that any anxious situation generally induces an individual to have a propensity for processing information and behaviors in a more negative context. Coupled with McCabe's (1999) findings that those individuals who normally function at a higher state of anxiety than the general population have also been found to focus less on positive cues, some teachers attempting to accurately evaluate threat assessments could fail to appropriately distinguish between potentially violent situations and normal student reactions.

A most recent study that used a different methodology for extracting information about bullying from teachers' perspectives was that of Twemlow, Fonagy, Sacco, and Brethour, Jr. (2006). The authors asked 116 teachers from seven elementary schools to fill out an anonymous survey to report their own feelings about bullying experienced by them and how they perceived bullying among their colleagues. They found that teachers who were more likely to have experienced bullying when younger were more likely to bully students, and they also reported that students had bullied them. Moreover, those teachers were more likely to report knowing other teachers who bullied and were bullied by students.

In sum, assessing a student's threat of bullying teachers is difficult due to the complexity of the issue. Factors that affect assessment of nonfatal threats against teachers are complex because they can include: the lack of profile validity in assessing violent students, whether the student threat is of a short- or long-term nature, teachers' placement in a rural or urban setting, teachers' gender, teachers' perceptions about their own anxiety, and whether teachers have been bullied before.

Discussion

The purpose of this literature review was to examine the general impact of nonfatal teacher victimization and in particular its affect on urban educational settings. The results revealed that although victimization rates are reported through a variety of instruments, they all generally tend to indicate that the numbers of school-related crimes in all settings are either declining or at least remaining steady.

Two associated problems, however, were discussed regarding current methodology: the use of a self-reporting instrument and the myriad of definitions that are used to operationally define school-related violence. Additionally, schools and school personnel must also weigh competing self-interests and stakeholders' considerations when determining how to most appropriately report incidences of violence that is perpetrated on their campuses.

Trying to get an accurate assessment of the exact level of violence in schools will continue to be problematic. The most accurate reporting method of any criminal activity is through some form of self-reported instruments, and it is only due to their anonymous nature that the most current and accurate, though not totally complete, indicators of violence can ever be obtained. Furthermore society, on a more profound level, wants to believe that schools which are inhabited by children are still relatively safe places. To associate them with rising levels of crimes and those resulting implications places enormous pressures on institutions and individuals to judiciously consider the implications before formally memorializing violence on a document.

The research has also supported that an individual's perception may play a significant role in the impact of violence on school personnel. Even though statistically violent episodes are continually declining, significant amounts of the reviewed literature found people both inside and outside the field of education who operated under the fallacious assumption that school crime was growing. Whether or not this was the direct result of media portrayals or personal biases, is still being reviewed. However, the perceived fear of being the victim of a violent crime has been empirically shown to not only affect the way in which school personnel perform their duties, but in fact impact where they choose to work and in some cases, significantly influence their decisions to completely change careers. Teachers' perceptions were also shown to significantly impact their judgments in determining appropriate responses to early intervention efforts for students' threats.

For urban schools, the impact and perception of violence on school personnel seems to only perpetuate a vicious cycle that deteriorates the standards of the school. As presented earlier, the research clearly shows a proclivity by teachers for a safe and clean environment that many associate with student characteristics that are not found in low-performing, minority, and low socioeconomic schools that are often indicative of the urban areas in which they exist (Blazer, 2006). School administrators in their attempt to increase student and staff safety, often implement more punitive measures such as metal detectors and increased security. This only further exacerbates the feeling of social isolation which eventually serves to undermine teacher confidence and increases anxiety which in turn drives teachers to more rural locations or out of the profession altogether (Devine, 1996).

School response to violence was also reviewed and the literature suggests that early and appropriate intervention is currently the most appropriate action. Teachers were continually found to be the key to any early intervention program primarily due to their relationship with most students, though specific and ongoing professional development would be a vital step in the process. Proactive and reactive contingencies must have been previously established and have been well rehearsed if student violence it to be minimized.

Limitations

One major limitation of this study was the nature and volume of material available for research. Though school violence has only begun to be seriously studied since the 1980s, there has been a vast proliferation of materials attempting to cover the topic. Understandably, the subject matter can evoke strong emotions resulting in some authors choosing to discuss the topic using little to no quantifiable data and presenting qualitative data that often has represented only personal opinions or extremely small survey samples.

Another limitation was the use of subject headings. Using a variety of search words and phrases, only a limited number of materials could be found by directly researching "nonfatal teacher victimization." After the search was expanded to included a Boolean search and including such terms as teacher violence, teacher burnout, teacher attrition, school-related violence, violence impact, and teacher assault did we begin to locate additional useful information. One interesting note was that in many cases salient information was included in related articles which had different headings that were only peripherally related to nonfatal teacher victimization.

This literature review would suggest that one future topic for research could include a more detailed study of the impact of nonfatal teacher victimization on urban schools and the immediate result on student performance on standardized tests. Although this group in particular has historically been a challenge to educate, future studies that focus exclusively on the impact of violence on student scores may begin to address reasons for significant achievement gaps.

References

Allen, M. (2005, September). *Eight questions on teacher recruitment and retention: What does the research say?* Denver, CO: Education Commission of the States.

Beck, A., & Clark, D. (1997). An information process model of anxiety. Automatic and strategic processes. *Behavior Research and Therapy, 35*, 49-58.

Behre, W., Astor, R., & Meyer, H. (2001). Elementary and middle school teachers' reasoning about intervening in school violence: An examination of violence-prone school subcontexts. *Journal of Moral Education, 30*, 131-154.

Benner, A. (2000, November 20). *The cost of teacher turnover.* Texas State Board for Education Certification. Austin, TX: Texas Center for Educational Research.

Blazer, C. (2006, August). *Literature review on teacher transfer and turnover.* Office of Accountability and System Wide Performance. Miami, FL: Miami-Dade County Public Schools.

Bloch, A. (1976). The battered teacher. *Today's Education, 66*, 58-62.

Bon, S., Faircloth, S., & LeTendre, G. (2006). The school violence dilemma: Protecting the rights of students with disabilities while maintaining teachers' sense of safety in schools. *Journal of Disability Policy Studies, 17*, 148-157.

Brener, N., Simon, T., Krug, E., & Lowry, R. (1999). Recent trends in violence-related behaviors among high school students in the United States. *Journal of the American Medical Association, 282*, 440-446.

Coggeshall, M., & Kingery, P. (2001). Cross-survey analysis of school violence and disorder. *Psychology in the Schools, 38*, 107-116.

Colley, A. (2002). What can principals do about new teacher attrition? *Principal, 81*, 22-24.

Cornell, D. (2006, January 26). The Virginia model for student threat assessment. *Public Entity Risk Institute,* 24-36.

Cornell, D., Sheras, P., Kaplan, S., McConville, D., Douglas, J., Elkon, A., et al. (2004). Guidelines for student threat assessment. School *Psychology Review, 33*, 527-546.

Crosse, S., Burr, M., Canton, D., Hagen, C., & Hantman, I. (2001). *Wide scope, questionable quality: Drug and violence prevention efforts in American schools* (DOC 2001-35). U.S. Departments of Education and Justice, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Darling-Hammond, L., & Sykes, G. (2003). Wanted: A national teacher supply policy for education: The right way to meet the "highly qualified teacher" challenge. *Education Policy Analysis Archives, 11*, 1-57.

Devine, J. (1996). *Maximum security: The culture of violence in inner-city schools.* Chicago, IL: The University of Chicago Press.

Devoe, J., Kaufman, P., Ruddy, S., Miller, A., Planty, M., Snyder, T., et al. (2002). *Indicators of school crime and safety: 2002* (NCES 2003-009/NCJ 196753). U.S. Departments of Education and Justice, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Devoe, J., Peter, K., Kaufman, P., Ruddy, S., Miller, A., Planty, M., et al. (2003). *Indicators of school crime and safety: 2003* (NCES 2043-004/NCJ 201257). U.S. Departments of Education and Justice, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Elliot, D., Hamburg, B., & Williams, K. (1998). Violence in American schools: An overview. In D. Elliot, B. Hamburg, & K. Williams (Eds.), *Violence in American schools.* New York: Cambridge University Press.

Flannery, D., & Singer, M. (1999). *Exposure to violence and victimization at schools* (Institute for Urban and Minority Education). New York: Columbia University, Teachers College.

Furlong, M., & Morrison, G. (2000). The school in school violence: Definitions and facts. *Journal of Emotional and Behavioral Disorders, 8*(2), 71-82.

Furlong, M., Morrison, G., Austin, G., Huh-Kim, J., & Skager, R. (2001). Using student risk factors in school violence surveillance reports: Illustrative examples for enhanced policy formation, implementation, and evaluation. *Law and Policy, 23*, 271-306.

Furlong, M., Morrison, G., Bates, M., & Chung, A. (1998). School violence victimization among secondary students in California: Grade, gender, and racial-ethnic group incidence patterns. *California School Psychologist, 3*, 71-87.

Gelfand, D., Jenson, W., & Drew, C. (1997). *Understanding child behavior disorders* (3rd ed.). Orlando, FL: Harcourt, Brace & Company.

Hanushek, E., Kain, J., & Rivkin, S. (2001). Why public schools lose teachers. *Journal of Human Resources, 39*, 326-354.
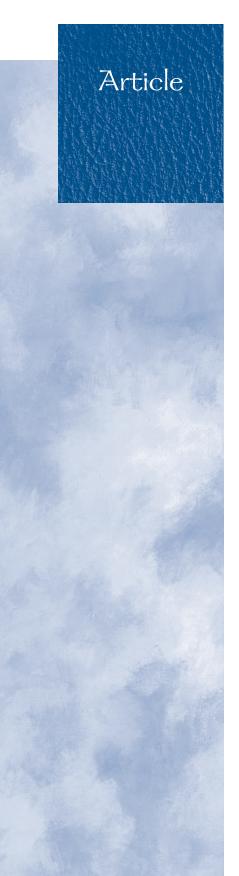
Heaviside, S., Rowand, C., & Farris, E. (1998). *Violence and discipline problems in the U.S. public schools* (NCES 98-030). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Henry, S. (2000). What is school violence? *The Annals of the American Academy of Political and Social Science, 567*, 16-29.

Honawar, V. (2008, May 14). Districts take action to stem violence aimed at teachers. Education Week, 27, 1-11.

Horng, E. (2005, March 28). *Poor working conditions make urban schools hard-to-staff* (PB -010-0305). All Campus Consortium on Research and Diversity, UC Accord Public Policy Series. Los Angeles, CA: University of California.

Ingersol, R. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal, 38*, 499-534.

Kaufman, P., Chen, X., Choy, S., Ruddy, S., Miller, A., Fluery, J. et al. (2001). *Indicators of school crime and safety: 2000* (NCES 2001 - 017/NCJ-184176). U.S. Departments of Education and Justice, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

Kingery, P., & Coggeshall, M. (2001). Surveillance of school violence, injury, and disciplinary actions. *Psychology in the Schools, 38*, 117-127.

Kondrasuk, J., Greene, T., Waggoner, J., Edwards, K., & Nayak-Rhodes, A. (2005). Violence affecting school employees. *Education, 125*, 638-647.

McCabe, R. (1999). Implicit and explicit memory for threat words in high- and low-anxiety-sensitive patients. *Cognitive Therapy and Research, 23*, 21-38.

Morrison, G., & Skiba, R. (2001). Predicting violence from school misbehavior: Promises and peril. Psychology in the Schools, 38, 173-184.

O'Toole, M. (2000). *The school shooter: A threat assessment perspective.* National Center for the Analysis of Violent Crime. Quantico, VA: Federal Bureau of Investigation.

Plecki, M., Elfers, A., Loeb, H., Zahir, A., & Knapp, M. (2005). *Teacher retention and mobility: A look inside and across districts and schools in Washington State.* Seattle, WA: University of Washington.

Rappaport, N. (2004). Assessing children and adolescent's dangerousness in school settings. *Adolescent Psychiatry, 28*, 157-181.

Reddy, M., Borum, R., Vossekuil, B., Fien, R., Berglund, J., & Modzeleski, W. (2001). Evaluating risk for targeted violence in schools: Comparing risk assessments, threat assessments, and other approaches. *Psychology in the Schools, 38*, 157-172.

Stephens, R. (2000). *National School Safety Center school-associated death database.* Thousand Oaks, CA: National School Safety Center.

Ting, L., Sanders, S., & Smith, P. (2002). The teachers' reaction to school violence scale: Psychometric properties and scale development. *Educational and Psychological Measurement, 62,* 1006-1019.

Tversky, A., & Fox, C. (1995). Weighing risk and uncertainty. *Psychological Review, 102*, 269-283.

Twemlow, S. W., Fonagy, P., Sacco, F. C., & Brethour, Jr., J. R. (2006). Teachers who bully students: A hidden trauma. *International Journal of Social Psychiatry, 52*, 187-198.

Vossekuil, B., Fien, R., Reddy, A., Borum, R., & Modzeleski, W. (2002). *The final report and findings of the safe school initiative: Implications for the prevention of school attacks in the United States.* U.S. Secret Service and U.S. Department of Education. Washington, DC: U.S. Government Printing Office.

Williams, L., Winfree, L., & Clinton, L. (1989). Trouble in the schoolhouse: New views on victimization, fear of crime, and teacher perceptions in the workplace. *Violence and Victims, 4*, 27-44.

Yogan, L., & Henry, S. (2000). Masculine thinking and school: Gender and race. In D. S. Sandhu, & C. B. Aspy (Eds.), *Violence in America's schools: A practical guide for counselors.* Alexandria, VA: American Counseling Association.

Youth Risk Behavior Surveillance - United States 1995. (1996, September 27). *MMWR: Morbidity and Mortality Weekly Report: CDC Surveillance Summaries, 45*, 1-83.

Youth Risk Behavior Surveillance - United States 1997. (1998, August 14). *MMWR: Morbidity and Mortality Weekly Report: CDC Surveillance Summaries*, 47, 1-89.

Youth Risk Behavior surveillance - United States 1999. (2000, June 9). *MMWR: Morbidity and Mortality Weekly Report: CDC Surveillance Summaries, 49*, 1-96.

Youth Risk Behavior Surveillance - United States, 1993. (1995, March 24). *MMWR: Morbidity and Mortality Weekly Report: CDC Surveillance Summaries, 44*, 1-55.

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Article

The Effects of Mentors on the Classroom Behavior of Students With Emotional and Behavioral Disorders

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Abstract: *Mentoring is frequently discussed as a viable approach for improving the educational and social outcomes of students at risk for learning or behavioral problems. However, little data-based evidence beyond case study has been presented regarding the effectiveness of mentoring for students at risk. Here, 16 students with emotional/behavioral disorders (EBD) in two classrooms at an alternative day school were paired with undergraduate preservice teachers who served as mentors. Using PAND (Percentage of All Non-Overlapping Data), data indicate behavior change for 13 of the 16 students with improvement for 6 and a range of effects sizes. This data indicate that mentoring relationships with certain vulnerable populations (such as students at risk for or with EBD) may have mixed effects.*

Introduction

The professional literature has identified mentoring as an effective intervention for promoting positive social and academic outcomes for students with or "at risk" for emotional and behavioral disorders (EBD) (Aiello & Gatewood, 1989; Ference & Rhodes, 2002; Fishman, Stelk, & Clark, 1997; Haensly & Parsons, 1993; Segal, 1988; Weiss & Hechtman, 1993), and policymakers recommend mentoring as an effective practice (Bush, 2005). Specific examples include consistent school-related assistance from a mentor has resulted in children being more receptive to learning with (Fishman et al., 1997) and making positive educational progress (Gray, 1989; Vance, Fernandez, & Biber, 1998). Further, mentoring has been found to attribute to transition success (Hagner, Cheney & Malloy, 1999; Powers, Sowers, & Stevens, 1995) and programs that provide adult mentors for high-risk youth have reportedly led to an increase in school attendance and performance (Tierney, Grossman, & Rech, 1995) and provided assistance to teen mothers (Hume, 2002).

Interestingly, although mentors are frequently mentioned as "proven to be a practical solution for students with academic and behavior problems"(Campbell-Whatley, 2001, p. 211) or "helpful interventions include the use of mentors" (Tobin, Sugai, & Colvin, 1996, p. 82) and that mentoring "programs (with EBD) students can yield unmatched and innumerable benefits" (Burrell, Wood, Pikes, & Holliday, 2001, p. 28), few empirical validations are available on the effects of mentors (Brodkin & Coleman, 1996; Brooks, 1994; Haensley & Parsons, 1993; Powers et al., 1995). Research

on mentoring processes indicates that additional training on structured activities and importance is generally needed (Andrews & Quinn, 2005). Further, online mentoring programs for at-risk youth have also been published, but no empirical data on social or academic behaviors were reported (Lesene, Buckman, Caves, & Day, 1997).

All program evaluation is complex, and outcomes for social constructs such as personal efficacy are particularly difficult or impossible to measure. Two models have been proposed for evaluating mentoring programs: (a) process and (b) product or impact (John D. & Catherine T. MacArthur Foundation, 1992). The impact of any program should determine its efficacy and contribute to adoption decisions. Therefore, in the case of mentoring, the most effective methods for evaluating efficacy would be direct and systematic observation.

The purpose of this study was to examine the effects of mentors on the daily classroom social and academic behaviors of students with emotional and behavioral disorders as measured by continuous data on nine specific behaviors. The behaviors (talking out, out of seat, off task, cussing, arguing, noncompliance, physical aggression, sleeping, and put-downs) were selected by participating teachers and administrators as the most frequently occurring and most troublesome disruptions to instruction.

The conceptual model for designing the mentoring intervention combined the components of effective programs (Campbell-Whatley, 2001) with the resiliency-fostering strategies set forth by Brooks (1994). Accessing students daily through e-mail was added as a feature supported by previous research

to increase academic performance (Lesene et al., 1997). This also allowed for greater frequency of contact between mentors and protégés and an increase in the weekly duration of contact from 2 hours to more than 3 hours (1-3 hours is recommended as sufficient contact time) (Campbell-Whatley, 2001).

An issue critical to the adoption of many mentoring programs is difficult and complex administrative logistics (Haensly & Parsons, 1993). Finding and pairing mentors and protégés is time-consuming and resource intensive. In the current study, we elected to use preservice teachers as mentors for a number of reasons. First, preservice teachers already have some background in curriculum and instruction as well as an identified interest in working in educational settings with children. Second, mentoring is mutually beneficial for these mentors and protégés, because the mentors receive a much needed, highly desired experience as preservice teachers and the protégés receive 1:1 time and attention. This mutual benefit is a recommended aspect of an effective mentoring relationship (Haensly & Parsons, 1993). And third, mentoring enables the preservice teacher to gain experience in working individually with a student with a disability in a context that is free from the pressures of student teaching or first-year teaching.

Method
Participants
Student protégés. Twenty-seven children with emotional/behavior disorders in grades 4-8 who received educational services in an alternative day school were nominated to participate in the study. The students had been referred from their local school campus after unsuccessful, on–campus, pre-referral interventions. After observations and subsequent team evaluations, students were placed at Building Bridges (all prior to the onset of this study), an alternative school for students who have educational diagnoses of EBD and have experienced repeated negative contacts with the juvenile justice system and school administration, and have histories of family service interventions.

Of the original sample of 27, 16 students, or protégés, completed the study. All students, 4 girls and 12 boys, were Caucasian. Reasons for exclusion of participants included incarceration, absences of more than 20%, school transfer, or a change in parental or student consent to participate.

Mentors. The 27 preservice teachers who served as mentors were enrolled in the Psychology and Education of the Exceptional Child Course at Missouri Western State University in the spring of 2001. Missouri Western State is a primarily regional, open admissions, undergraduate campus of approximately 5,000 undergraduates. Preservice teachers used the 24-hour college computer lab. This lab was equipped with staff for technical assistance, online technical support, and e-mail accounts.

Setting
Building Bridges is a K-12 Alternative Education Center for students with disabilities and severe behavior problems. The school is located on the third floor of a psychiatric hospital. On the first floor is a short-term management facility for any children needing short-term academic and social skills remediation and, therefore, is not exclusive to students with Individual Education Plans. The second floor houses a residential unit for children in addition to educational classrooms and offices. Interspersed on floors one, two, and three are additional offices and meeting rooms for psychiatrists, psychologists, counselors, and social workers. The building has an indoor gymnasium and a cafeteria. The outdoor facilities include playground equipment and a small lawn area for recreation activities.

All one-on-one mentoring occurred in the classrooms, hallways, gymnasium, or cafeteria under the supervision of the special education classroom teachers and administrators. Two distinct classrooms were involved, one upper elementary and one middle school. Each room had one classroom teacher and one full-time instructional assistant.

The online mentoring for each student occurred in a small office area of a computer lab. The computer lab was available on demand to students but only with supervision. The lab had one computer with Internet connection. The lab was on the same floor as the classrooms, approximately 20-50 feet from each instructional area.

Procedures
Effective mentoring programs has been found to be characterized by the following essential components: the involvement of personnel who have complementary contact, program coordination with delineated goals and objectives, a target population, specified activities, procedures, training or orientation for mentors and students, quality characteristics of mentors, monitoring, and evaluation (Campbell-Whatley, Algozzine, & Obiakor 1997; Preyer, 1990). For purposes of clarity for the reader, procedures and fidelity of implementation are discussed by each of these essential components.

Complementary contact and target population. All students identified with EBD in two classrooms (upper elementary and middle school) were assigned mentors. Two students with EBD requested a switch after the orientation based on "interests." These requests were immediately accommodated.

Training and characteristics of mentors. Prior to participation in the study, the preservice teachers received training consisting of reading selections from textbooks and journals, lectures, and lesson planning assignments. To qualify for participation in the study, preservice teachers were required to pass an exam on the characteristics of children with EBD and effective instructional techniques for this student population with 90% or better accuracy.

All mentors had a GPA of at least 2.5 and had earned at least a "C" in all college coursework in an education major. Mentors also had letters of recommendation from their department chair. In addition, each mentor had passed a criminal background check and had signed a declaration of moral character. Finally, each mentor submitted their personal philosophy of teaching, which included belief statements regarding their commitment to teaching individuals with disabilities.

Participation for preservice teachers (mentors) was a voluntary choice component of the undergraduate class requirements; successful completion earned a grade worth one third of the total course points. Protégé (students with EBD) participation was also voluntary. Students were reinforced for participation with access to the computer for online correspondence; special meal service on Fridays (such as pizza delivery); and participation in mural painting, basketball games, and other recreational activities.

Specified activities and procedures. Mentors e-mailed their protégés daily and met with them weekly Monday through Friday beginning in January and ending in May (one academic semester of 15 weeks). Topics for e-mail and the one-on-one sessions were one of five protective factors for increasing resilience in students at risk: encouragement and positive feedback, self-discipline, dealing with mistakes and failure, enhancing decision-making skills, and encouraging student contributions (Brooks, 1994). Daily e-mail exchanges ranged from one e-mail and one response to five e-mails and five responses per day. Mentors spent two hours of one-on-one time with their protégés each Friday for three weeks. Mentors recorded the frequency of occurrence resiliency topics in both e-mail and individual sessions through the use of a clipboard and data recording sheet.

The two-hour sessions were held during school hours under the supervision of the assigned classroom teacher. Mentors and their protégés met in a quiet area of the school cafeteria, hallway, or a classroom to talk about their lives, their goals, and how to improve in school to the extent that they could return to their "home campus." Because of the characteristics of the behavior of students with EBD (e.g., violence, hallucinations), the college course instructor and the building principal floated from room to room and were available to help in case of an emergency.

Mentor-protégé relationships were restricted to in-school contact. The personal contact involved academic assistance with the regularly scheduled lessons of the classroom teacher and recreational activities such as basketball, mural painting on civil rights, and reading stories or journals. In some cases, conversations were also selected by participants as the activity of choice.

Discussions were varied based on the individual participants, but overall they were comprised of issues related to schoolwork, families, drug use, incarceration of self and others, and relationships with peers and teachers. Mentors and protégés were advised that issues related to criminal activity or reports of abuse would be responded to with appropriate authorities within 24 hours. No reports of incidence of criminal activity or abuse were made or received.

Incoming and outgoing e-mail was checked each day (100% of all occurrences) by a trained data collector or the classroom teacher for reliability of frequency data on resiliency topics. If a protégé was absent, suspended, or refused to participate, the data collector or classroom teacher would record an X in the "received" designation area on the data sheet and would notify the appropriate mentor that the student was either absent, suspended, or refused to participate on that day. Mentors were instructed to e-mail daily regardless of responses from students. If students were absent, suspended, or refused to participate on one day, they would receive two e-mails when next participating.

Training and orientation for mentors and student protégés. The first session was a "get to know you" pizza party orientation where participants were introduced to each other first as a large group and then as mentor-protégé pairs. Participants sat next to each other and visited informally about individual goals and needs. A large-group discussion was then facilitated by the school director to review the purpose of the project in the context of the goals and expectations of the students with behavior disorders. Mentors were matched with protégés based on preference requests of protégés with regard to gender in all cases, and interests when possible.

Monitoring and evaluation. Biweekly meetings were held with the principal investigator and the school administrator. In addition, the principal investigator made daily phone or personal contact with all data collectors and each of the 27 mentors to monitor progress and provide feedback. Evaluation of data was both formative and summative.

Data Collection

Nine subsets of classroom behavior and total behavior were measured continuously in six-hour intervals per school day. All school locations, including classrooms, hallways, gym, and cafeterias, were observed. Data were collected by classroom teachers, instructional assistants, and data collectors. Instruction time and conditions, as well as recreation opportunities, were held constant to maintain consistency for controlled operants. Reliability was scheduled to be measured a minimum of 20% of days by the data collectors.

Fidelity-of-implementation data were collected on mentoring behavior, including topics of conversation and attendance or e-mail participation. Mentors recorded their own e-mail as sent and received. The data collector or classroom teacher printed, coded, and recorded all e-mail for the protégés and mentors as sent and received, absent, suspended, or refused. Reliability was coded as agreement or disagreement and calculated randomly on 20% of days.

Independent Variable

The independent variable was mentoring as defined by weekly two-hour visits at the school for one-on-one personal contact and daily e-mail exchanges between mentors and their protégé on one of the five topics identified as increasing resiliency in youth (Brooks, 1994). The personal contact involved academic assistance with the regularly scheduled lessons as assigned by the classroom teacher and recreational activities such as basketball, mural painting, and reading.

Dependent Variables

The dependent variables were nine individual behaviors identified as "inappropriate classroom behavior" by the teachers and administrators at Building Bridges Alternative School (Table 1). Behaviors were selected by teachers and administrators participating in the study as occurring frequently and causing instructional interference. Faculty, instructional assistants, and administrators created operational definitions of the behaviors

Experimental Design

A single-subject reversal design (Kazdin, 1982) was used to visually evaluate the effects of mentoring on total inappropriate behaviors and provide feedback and daily, formative information to the research team. Single-case design is characterized by repeated and direct measurement, carefully delineated and controlled conditions, and systematic introduction and removal of interventions (Kazdin, 1982; Sidman, 1960). Repeated observations of performance over time are required to examine the effects of the intervention. If the behavior(s) of interest change in relation to the introduction or removal of the independent variable, a functional relationship may be inferred. The degree of inference is directly related to the magnitude

Table 1

Definitions of Behaviors Recorded in Classrooms by Teachers

Behaviors	Definitions
Talking out	During direct instruction student speaks without permission. During group academic activities student speaks out of turn or on nonrelated topic.
Out of seat	During direct instruction and group academic activities, student's bottom leaves chair seat and feet are out from under desk.
Off task	During instruction student is looking at stimulus other than teacher, blackboard, media, worksheet, or materials.
Not following directions/ Noncompliance	When presented with a direction from teacher, administrator, or instructional assistant, student responds in a manner inconsistent with compliance.
Sleeping	Student head on desk, eyes closed. Student head back in chair, eyes closed for more than 30 seconds.
Physical aggression	Student response involving bodily contact with person or property that indicates malice or frustration.
Cussing	Student uses generally unacceptable language or slang.
Arguing with staff	Student responding to staff directions with verbal noncompliance as a function of maintaining verbal engagement.
Put-downs	Student use of language with intent to disrespect.

of the change, the consistency of the data, and the number of times the effect is demonstrated. Analysis of single case research (SCR) is typically visual inspection, but multiple statistical measures of effect are available to supplement SCR design and analysis.

Analysis

Single case effects of the intervention can be established visually if performance under the intervention condition differs from the projection of the baseline condition (Kazdin, 1982). However, visual interpretation is difficult and limited in instances of highly variable data. Highly variable data is typically seen for students with emotional and behavioral disorders thus rendering visual analysis alone insufficient as a measure of magnitude of effect. Magnitude-of-effect measures through percentage improvement rates are therefore included in this analysis, as is widely recommended in social science literature (Cohen, 1990; Kupersmid, 1988; Rosnow & Rosenthal, 1989).

The data were analyzed with a nonparametric technique for nominal data, which sidesteps the assumptions of equal variance and normality required of parametric and some nonparametric analyses. The table-based Pearson's Phi, was calculated from data nonoverlap between the intervention phase on the one hand, and baseline and return-to-baseline phases on the other. The analysis is based on nonoverlapping data (Parker, Hagan-Burke, & Vannest, 2007). The Phi is always based on a balanced 2x2 table of data overlap vs. nonoverlap so that it can be interpreted directly as the difference between two improvement rates or success rates (Parker, Vannest, & Brown, in press). Phi is calculated as the square root of Chi-square, divided by N (Cohen, 1988 a). Chi-square is given as direct output from crosstabulation of a 2x2 table. N is the total number of datapoints in the table.

Reasons for using Pearson's Phi include: Phi makes minimal data assumptions, Phi has a strong relationship to clinical outcomes and the concept of percentage of non-overlapping data (.98 correlation), and Phi provides easily interpretable results (Parker et al., 2007; Parker et al., in press). Phi can also agree with parametric results at .90 correlations (Parker et al., in press). Phi is a Pearson R for 2x2 tables and does not require even ordinal data assumptions nor is its distribution shape a concern. (Parker et al., in press; Cohen, 1988b).

Interpretation of Pearson's Phi represents the percent increase in improvement or success rates for the intervention phase scores over the baseline phase scores. The calculation procedure for obtaining Phi was performed in accordance with Parker et al. (in press).

Results
Reliability

Reliability data on the independent variables were collected across all 16 subjects. Reliability observations occurred during 31.5 % of the sessions. The percentages of actual agreement were calculated by a point-by-point agreement method. The mean percentage of agreement on participant inappropriate behaviors was 87.0 %. The percentages of agreement ranged from 66.7 % to 100 %.

Academic and Social Behavior Improvement

Of the 27 participants who began the study, 16 students remained in the study long enough to collect data for a baseline (A) and intervention (B) phases. Of these 16 students, 14 had data in phases of baseline, intervention, and return to baseline (ABA or withdrawal of treatment). Examination of the data for the 16 students across all nine subsets of behavior resulted in 160 graphs of results for visual of means, phase changes, and trend lines (these are available by request from the first author). For the purposes of this paper, a statistical summary table rather than a series of visual analysis graphs depict results for 16 students' total behaviors.

The data were statistically analyzed using Pearson's Phi. Values should be interpreted as an increase in success rate or improvement rate from baseline to intervention phases, and as such are effect sizes with a direct, practical meaning. Thus, as calculated from the 2x2 table, Phi is more readily interpreted than Cohen's d (mean difference in standard deviation units) or Pearson R2 (percent of variance accounted for). Regarding the use of metrics or guidelines, we will follow the advice of Cohen who gave "invitations not to employ them if possible" (Cohen, 1988a pg. 532 as cited in Thompson, 2006 p. 199) and instead will discuss the range of behavior change based on the more readily understood percentage of improvement that is Phi.

Based on calculations, of the nonoverlap between intervention, baseline, and return to baseline, an overall effect of a 14 % change in behavior was demonstrated across all 16 students. Percentage of change ranged from 0 % to .75 % for each student (Table 2). Behavior changes occurred in both positive and negative directions. With some student's behavior improving (fewer maladaptive behaviors) and some students behavior deteriorating (more maladaptive behaviors).

Students fit in one of three ranges of behavior change as we have determined them for these results as a study of new and "uncharted territory" with no similar ES of online coupled with in-person mentoring studies to compare to for context. Instead, we will discuss the data in relationship to the context of behavior change for students identified as emotionally or behaviorally disordered, educationally placed, and served in a day treatment center. We found three types of effect for the online and in-person mentoring: zero change, improvement, and degradation (Table 3). Our results will be discussed within the context of the related research as recommended by Thompson (2006).

Zero change. The data demonstrated that zero behavior change occurred for 3 students in our sample of 16. Online and in-person mentoring did not demonstrate positive improvement in the total behaviors for 19 % of our students. These students' rates of behavior had medians of 8-16 occurrences of maladaptive behavior a day and under the condition of mentoring had median occurrences of maladaptive behavior from 7-18.5. The percentage of change for these three students was zero.

Table 2

Percentage Change of Behavior by Size

Students	PHI	P
Gene	.746	.002
Lisa	.63	.003
Ben	.352	.12
Cole	.35	.07
Richard	.314	.27
Jaime	.27	.2
Denise	.266	.21
John	.238	.25
Erica	.238	.25
Tufan	.214	.31
Jorge	.212	.34
Jack	.145	.51
Fisher	.066	.78
Sulleyman	.	1
Mack	.	1
Tiffani	.	1
Overall	.136	.014

Improvements. The data for 6 students or 37.5 % of our sample demonstrated a positive change in behavior that ranged from .07-.27 % (Phi). For these 6 students changes in behavior ranged from a 7 % improvement to a 27 % improvement. Four students had behavior improvements over 20 %. This is a fairly substantive change in behavior frequency for teachers in the classroom and demonstrates a marked effect. For these 6 students, online and in-person mentoring demonstrated small to substantial changes across 9 social and academic behaviors as measured by their frequency of occurrence in the classroom. Visual analyst rated graphs with Phi values of .43 and below as representing small to negligible effects. Values of .43 to .76 were rated as medium size effects and higher Phi values were rated as large effects in a study of 166 published data sets. (Parker et al., in press)

Degradation. Seven student's data yielded Phi that ranged from .21 to .75, a degree of change that represented a worsening of overall maladaptive behaviors. These seven students demonstrated fairly substantial degradation in behavior under the condition of mentoring.

Table 3

Median Frequency of Behavior Changes Across Phases (Baseline and Intervention)

Students	Phase A	Phase B	PHI	Behavior Change
Deteriorated Scores				
Gene	0	24	.746	-.75
Lisa	4.5	18	.63	-.63
Ben	7	29.5	.352	-.35
Cole	4	7	.35	-.35
Richard	1	2	.314	-.31
Denise	1	2	.266	-.27
Tufan	37	53	.214	-.21
No Change Scores				
Sulleyman	16	18.5	.	0
Mack	8	9	.	0
Tiffani	8	7	.	0
Improved Scores				
Jaime	5	8	.27	+ .27
John	8	3	.238	+ .24
Erica	23	15	.238	+ .24
Jorge	4	3	.212	+ .21
Jack	18.5	13.5	.145	+ .15
Fisher	27	20	.066	+ .07

Notes: Percentage Change reflects a 2 digit rounded value of Phi as an effect size calculation with a + or – to reflect the improvement or deterioration in performance based on the visual graph of the data trend.

Discussion

The data from 16 students with EBD yielded three types of effects for an online and in-person mentoring intervention based on the effective mentor program literature and resiliency characteristics: zero change, improvement, and degradation. These three types of effect were determined by the measure of Phi in combination with visual analysis of differences in means, medians, trends, and intercept gaps for each participant. Zero change was characteristic of 3 of the 16 participants who completed the study. Improvement was evidenced for 6 of the 16 students, and degradation was seen for 7 of the 16 students. These three types of effects might be explained in one of several ways.

We examined the effects of online and in-person mentoring systemically across all students in two classrooms. Of the 27 students, 16 completed the study (typical for this population) due to suspensions, absences, change of educational placements, incarcerations, and one parent refusal for a child in a contested court removal. As such, the protégés were selected based on their classroom placement and diagnosis rather than the high rates of stable behavior that one might typically see in a small SCR study of 2 or 3 subjects. This is a strength and an addition to the literature to see how mentoring (online mentoring in this case) affected student behavior across many types of students. Mentoring programs are frequently adopted in this systemic way by identifying "students" identified or at risk for EBD and "applying" mentoring programs broadly as an appropriate intervention regardless of type of internalizing or externalizing problems or rates or variability of maladaptive behavior. This discussion provides further elaboration on the results by categorizing effects by type of student behaviors and responding patterns to better understand the range of effects empirically on students in classrooms.

High variability performers. Three students demonstrated zero percentage of improvement in the total frequency of behaviors measured. Students of this typology may demonstrate improvement that is difficult to measure because of the fluctuation in both externalizing and internalizing behaviors. These students had behavior that ranged from 0 to 40 occurrences of problem behavior each day and demonstrated tremendous variability in performances. These fluctuations may be related to setting events that would not be impacted by e-mail or weekly time with a mentor. For such students, a more proactive use of mentors as a morning check-in where e-mail or personal contact with their mentor could be made on demand might be a better approach to dealing with problem behavior in the classroom. The data reflects our need to understand and empirically identify the characteristics of mentoring that make for a successful intervention. Mentoring may be best constructed as choice for the student rather than a treatment to be dispensed by school officials.

Low rates of behavior. A second type of student had very low rates of disruptive or off-task behaviors and thus a floor effect was evident. For example, students with a median baseline of 0 or 1 and a mean baseline score of 1.18, 1.57, or 2.5 of maladaptive behaviors per day, did not demonstrate high rates maladaptive behavior in class either internalizing or externalizing. Frequency counts may not be a sensitive enough measure to detect any positive effect of mentoring.

These types of students did not demonstrate a positive change in behaviors but there was little room for this change. Instead, their maladaptive behavior slightly increased for three and greatly increased for one. One student's behavior escalated at an increasing rate, reaching more than 160 events per day from a baseline median of 0. This may have been a result of changing a structured program that was previously functional. The addition of a new person, new routine, or new performance expectation with opportunities for disruption (e.g., walking down a hall, social interaction) may be the root of the increase in behaviors.

For students who are maintaining appropriate behaviors in classroom settings, mentoring might serve as a challenge to maintaining their equilibrium. The excitement and performance expectations introduced because they are "good" might serve to derail their behavior by introducing additional attention and stimulation into an already supportive, structured, and calming environment. For these types of students, school awareness that the introduction of mentors may require some resettling time or that students may need to be given ample opportunity for the adjustment that comes with learning a new routine, becoming familiar with new people, and dealing with the expectations and presence of another individual. To children who have been identified or are at risk of emotional and behavioral disorders, the introduction of a new person may be disruptive more than it may be of benefit.

Thus, for the group of students with the lowest rates of behavior, mentoring as a treatment arrangement was not just ineffective; it was detrimental. A population of students with behaviors severe enough to warrant a separate educational campus may be so negatively impacted by a change in routine and the presence of new and temporary individuals in their lives that transition time is not enough or the benefits not substantial enough to warrant this type of intervention. Also, the nature of the activities may have increased the demands on already overwhelmed children. Great caution should be demonstrated when developing and implementing mentoring programs that for some students should be explicitly optional. Students who are categorized at levels of such high risk may be best served by maintaining programs that work and only gradually introducing new elements.

Responsive students. Improvement was evident for 6 of the 16 participants with improvements that ranged from a .07 to .27. These 6 students were most responsive to mentoring and shared some similarities. Means and medians for all 6 students ranged from around 5 to 30 in baseline. The behavioral topography of the students who had moderate rates of behavior in baseline included some degree of stability (i.e., 5 of the 6 had only 1 or 2 days of high variability in their behavior) thus most performed, although not predictably, within a smaller range of variability. All 6 had immediate phase change decreases in maladaptive behavior and improvements in mean, median, and/or trend were evident for all 6. The range of a 7-27% improvement rate for these 6 students indicates that our responsive students tend to be characterized as relatively stable performers (compared to the group) and experienced immediate effects of the mentors.

This may be the type of student most suited for mentoring as a treatment for maladaptive classroom behavior. Mentoring served to decrease maladaptive behavior for 6 students and to decrease it to the degree that teachers would see and appreciate the change (4 students demonstrated change over 20%, 1 at 14%, 1 at 7%). The addition of a new caring adult increased the quality of their school

performance and did not serve to disrupt their educational experience. Rates of behavior for these 6 students sometimes reached 116 occurrences of maladaptive behavior a day so these were not low responders. The variability of performance was limited for the most part to fewer than 20% of days. Students with generally moderate rates of maladaptive behavior (moderate for this setting) and with some degree of stability in behavior responded positively, and to a reasonable degree, to mentoring.

This is reflective of the general nature of development of responsive treatment for students with challenging behavior; that is, no one intervention works for all kids at all times. Our most responsive group tended to be differently characterized from our zero change responders and our responders whose behavior degraded.

Limitations

Time. Although an ideal or recommended length, frequency, and duration of time spent between protégés and mentors has not been substantiated in the literature, this may have been a factor in the present study. Thus, it is a limitation that the intervention was intensive in contact on Fridays only, with lesser contact Monday–Thursday. However, as most after-school mentoring programs demonstrate only a few hours per week, this study was in line with the amount of time expended in other studies.

Participants. Some researchers have issued cautions about establishing mentor relationships with students characterized as having academic and learning problems of a more severe nature, such as those that result in suspension or expulsion (Fehr, 1993). It is possible that the students in the current study exhibited behavior so chronic that developing a mentor-protégé relationship would not translate into improved daily classroom behavior.

Attrition. Twenty-seven students were recruited to this study from two classrooms. This inclusion of all students for participation led to high attrition rate with 16 completers of the 27 students initially recruited. However, in a population so "at risk" for negative social contacts such as juvenile delinquency, crime, school failure, dropout, and incarceration, the completion of 16 students in our study makes this a relatively large sample of students with EBD compared to others where the average number of students (with EBD) in studies measuring academic variables is 6 (Vannest, Temple-Harvey, & Bruhl, 2005). Attrition is always a limitation in its threat to the generalization of results.

Measurement issues in the quality of relationships. We did not attempt to measure or judge the quality of the interactions between mentor and protégé, but instead selected units of time and components of interactions as observable and measurable data. These do not directly translate to information about the quality of a relationship. Levinson (1978), Galvez-Hjornevik (1986) and Schein (1978) all mention the relationship aspect of mentoring as a deep and meaningful association. Gehrke (1988) discusses the origin of the word *mentor* from Homer's *Odyssey* and the role as a loyal friend and wise counselor to cultivate wisdom rather than rebellion. Although we measured "rebellion" as a behavioral construct of sorts, we did not measure wisdom.

Conclusion

The theoretical underpinnings of this study come from two sources: (a) the protective factors associated with successful outcomes for students with EBD and (b) the components of mentoring programs as detailed in the literature. However, the social acceptance of mentoring programs should not substitute for empirical evidence to support their use.

An intuitive value of mentoring programs makes them socially acceptable to schools and teachers. Thus, most self-report data indicate a belief in the effectiveness of mentoring and participants in comparable studies cite they value mentoring (Lane & Canosa, 1995; Quinn & Andrews, 2004). All preservice teachers and students in this study reported strong changes in classroom behavior when asked. Students reported especially that they enjoyed the mentors and that the project helped them to achieve their goals. However, the data would suggest that their disruptive classroom behavior and academic achievement did not change.

The empirical data on the effectiveness of mentoring as described here may be attributed to one of two possibilities. First, the data may be accurate and suggest that mentoring has weak effects on changing the classroom behavior of students with EBD in an alternative school. A second possibility is that the data demonstrate an inability to implement mentoring effectively under the conditions of this study. Regardless, the authors recommend interpreting these results with caution as one piece of the complex puzzle on the nature of human interactions such as a mentoring relationship. However, these results are in line with newer evidence that has appeared since this study originated, also cautioning that the effects of mentoring on some children may be detrimental (Roberts, Liabo, Lucas, DuBois, & Sheldon, 2004) and that termination of mentoring relationships can cause decrements in functioning for adolescents (Grossman & Rhodes, 2002).

It is reasonable to suggest that mentoring has positive effects on students in at-risk populations (Tully, 2004) or with developmental disabilities, or students who experience transient school adjustment problems, but is not strongly correlated with positive changes in classroom behavior for students with severe EBD.

We believe strongly that students with severe learning and behavior challenges such as those educationally diagnosed as EBD need efficient and empirically validated interventions to prevent and remediate social and academic behavior problems. More research is needed to examine the as yet unproven efficacy of using mentors with this population, despite its widespread social acceptance. Specific areas of research include empirical justification of mentoring interventions with the EBD population and, if established, the comparative efficacy of such programs with other schoolwide and individual interventions. Future studies might also address the limitations described in the present study such as length of time and methods for defining and measuring a construct such as a mentoring relationship or the behaviors that might be impacted. In conclusion, in an era of school accountability and evidence-based practices, the use of mentors should be closely evaluated prior to adoption.

References

Aiello, H., & Gatewood, T. (1989). The Glasgow mentor model: A program for at-risk middle grades students. *Mentoring International, 3*(3), 5-8.

Andrews, B. D., & Quinn, R. J. (2005). The effects of mentoring on first-year teachers' perceptions of support received. *Clearing House, 78*(3), 110-116.

Brodkin, A. M., & Coleman, M. (1996). Kids in crisis: He's trouble with a capital T. *Instructor, 105*(7), 18-21.

Brooks, B. B. (1994). Children at risk: Fostering resilience and hope. *American Orthopsychiatric Association, 64*(4), 545-563.

Burrell, B., Wood, S. J., Pikes, T., & Holliday, C. (2001). Student mentors and protégés learning together. *TEACHING Exceptional Children, 33*(3), 24-29.

Bush, L. (2005). Helping America's youth. *Reclaiming Children and Youth: The Journal of Strength-Based Interventions, 14*(2), 69. Retrieved July 18, 2006, from ERIC database.

Campbell-Whatley, G. D. (2001). Mentoring students with mild disabilities: The "nuts and bolts" of program development. *Intervention in School and Clinic, 36*(4), 211-216.

Campbell-Whatley, G. D., Algozzine, B., & Obiakor, F. (1997). Effects of innovative programming on at-risk youngsters. *Journal of At-Risk Issues, 4*(1), 3-9.

Cohen, J. (1988 a). *Statistical power analysis for the behavioral sciences*. New York: Academic Press. As cited in Thompson, B. (2006). *Foundations of Behavioral Statistics*. New York: The Guilford Press.

Cohen, J. (1988 b). *Statistical power analysis for the behavioral sciences*, Chapter 9, pp 407-465, New York: Academic Press.

Cohen, J. (1990). Things I have learned (so far). *American Psychologist, 45*(12), 1304-1312.

Fehr, D. E. (1993). When faculty and staff mentor students in inner-city schools. *Middle School Journal, 25*(1), 65-67.

Ference, R. A., & Rhodes, W. H. (2002). Preservice teachers are making a difference by mentoring middle school students. *Middle School Journal, 33*(5), 41-46.

Fishman, R., Stelk, W., & Clark, H. (1997). The mentor school assistance program. *Preventing School Failure, 41*(3), 128-30.

Galvez-Hjornevik, C. (1986). Mentoring among teachers: A review of the literature. *Journal of Teacher Education, 37*(1), 6-11.

Gehrke, N. J. (1988). On preserving the essence of mentoring as one form of teacher leadership. *Journal of Teacher Education, 39*(1), 43-45.

Gray, W. D. (1989). Developing a planned mentoring program to facilitate career development. *Career Planning and Adult Development Journal, 4*(2), 9-16.

Grossman, J. B., & Rhodes, J. E. (2002). The test of time: Predictors and effects of duration in youth mentoring relationships. *American Journal of Community Psychology, 30*(2), 199-219.

Haensly, P. A., & Parsons, J. L. (1993). Creative, intellectual and psychosocial development through mentorship. *Youth and Society, 25*(2), 202-222.

Hagner, D., Cheney, D., & Malloy J. (1999). Career-related outcomes of a model transition demonstration for young adults with emotional disturbances. *Rehabilitation Counseling Bulletin, 42*(3), 228-242.

Hume, J. (2002). The role of mentoring teen mothers: Nurturing the mother-child bond. *Canadian Children, 27*(1), 34-37.

John D. and Catherine T. Mac Arthur Foundation. (1992). *Evaluating mentoring programs* (Report No. ISSN-1063-7214), Chicago: IUME Briefs.

Kazdin, A. E. (1982). *Single-case research design*. New York: Oxford University Press.

Kupersmid, J. (1988). Improving what is published: A model in search of an editor. *American Psychologist, 43*, 635-642.

Lane, G., & Canosa, R. (1995). A mentoring program for beginning and veteran teachers of students with severe disabilities. *Teacher Education and Special Education, 18*(4), 230-239.

Lesene, T. S., Buckman, L., Caves, C., & Day, B. (1997). Reaching reluctant readers: The student teacher online mentoring project. *ALAN Review*, *24*(2), 31-35.

Levinson, D. J. (1978). *Seasons of a man's life*. New York: Knopf.

Parker, R. I., Vannest, K. J., & Brown. L. (in press). Improvement rate difference for single case research. *Exceptional Children*.

Parker, R. I., Hagan-Burke, S., & Vannest, K. J. (2007). Percent of all non-overlapping data (PAND): An alternative to PND. *Journal of Special Education, 40*(4), 194-204.

Powers, L. E., Sowers, J., & Stevens T. (1995). An exploratory, randomized student of the impact of mentoring on the self-efficacy and community-based knowledge of adolescents with severe physical challenges. *Journal of Rehabilitation,* Jan/Feb/March, 33-41.

Preyer, P. (1990). *Coalition on at-risk minority males*. Huntsville, AL: Madison County, Office of the District 6 Commissioner.

Quinn, R. J., & Andrews, B. D. (2004). The struggles of first-year teachers investigating support mechanisms. *Clearing House, 77*(4), 164.

Roberts, H., Liabo, K., Lucas, P., DuBois, D., & Sheldon, T. A. (2004) Mentoring to reduce antisocial behaviour in childhood. *British Medical Journal, 328,* 512-514.

Rosnow, R. L., & Rosenthal, R. (1989). Statistical procedures and the justification of knowledge in psychological science. *American Psychologist, 44*, 1276-1284.

Schein, E. (1978). *Career dynamics: Matching individual and organizational needs.* Reading, MA: Addison-Wesley.

Segal, J. (1988). Teachers have enormous power in affecting a child's self-esteem. *Brown University Child Behavior and Development Newsletter*, 4, 1-3.

Sidman, M. (1960). *Tactics of scientific research*. New York: Basic Books.

Tierney, J. P., Grossman, J. B., & Rech, N. L. (1995). Making a Difference. *An Impact Study of Big Brothers/Big Sisters.* Philadelphia, PA: Public/Private Ventures. [ERIC Document Reproduction Service No. ED390973]

Thompson, B. (2006). *Foundations of behavioral statistics*. New York: The Guilford Press.

Tobin, T., Sugai, G., & Colvin, G. (1996). Patterns in middle school discipline records. *Journal of Emotional and Behavioral Disorders, 4*(2), 82-94.

Tully, F. G. (2004). Mentoring: My outstanding teacher of the year. *Reclaiming Children and Youth: The Journal of Strength-based Interventions, 13*(2), 68.

Vance, J. E., Fernandez, G., & Biber, M. (1998). Educational progress in a population of youth with aggression and emotional disturbance: The role of risk and protective factors. *Journal of Emotional and Behavioral Disorders, 6*(4), 214-221.

Vannest, K. J., Temple-Harvey, K., & Bruhl, S. (2005, April). *Academic interventions for students with emotional and behavioral disorders: Are there any?* Paper presented at the American Education Research Association, Montréal, CAN.

Weiss, G., & Hechtman, L. (1993). The hyperactive child syndrome. *Science*, *205* (4413), 1348-1353.

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The Use of Vocational Assessments: What Do Students Have to Say?

Larry Kortering and Patricia M. Braziel

Abstract: *Youths with disabilities are at risk of failing to complete high school and face considerable uncertainty as they attempt to transition toward a productive adulthood. One potential tool to help more of these youths to stay in school and provide them with information as to suitable post-school careers is the use of vocational assessments. This study examined the impact and perceived utility of a one-shot vocational assessment process. Pre- and post-process data as to participants' perceived status on indices of career decision making and career ambitions suggest the process had little or no impact. Participants did report enjoying the process and identified what they perceived as the best and worst parts. Furthermore, findings relative to various background features suggested participants had limited knowledge relating to the Individual Educational Program (IEP) and transition planning.*

Introduction

Many authors have sought to explain the failure to complete high school. Historically, most theories have focused on some aspect of changing the student in some way as the key to keeping youth in school. Accordingly, the responding interventions emphasized trying to "fix" the student, generally targeting such areas as student achievement or behavior. More recently, some researchers have turned toward changing the process of schooling in some way. The most influential theory comes from the work of Finn (1989). He conceptualizes school dropout as an evolving process whereby students gradually move toward increased levels of disengagement from the school environment, while failing to identify with or participate in the process of schooling. Various school, family, and individual features and experiences contribute to this gradual process of withdrawal from school (Griffen, 2002). Other theories support Finn's disengagement idea, best illustrated by the work of Christenson and her colleagues (Anderson & Christenson, 2006; Christenson, Sinclair, Lehr, & Godber, 2001), by specifically targeting interventions and tools that engage students in the schooling process and learning.

Another aspect of engagement and school completion involves the issue of what motivates youth to be in school. The suggestion here is that one can better engage students in learning and school given an understanding of their motivations. Earlier research has shown four primary motivations youth report for coming to school (and accordingly staying), with the most influential one entailing some aspect of perceiving that being in school is preparing them for a productive adulthood (Kortering, Konold, & Glutting, 1998; Kortering & Konold, 2005). This productive adulthood entails their perception that what they are doing in school is getting them ready for a suitable career, college or training, immediate employment after graduating, and a better or more productive life. The "productive adulthood'"motivation is twice as influential as the second most influential motivation—involving a desire to socialize with peers in school and five times more influential than the remaining motivations (i.e., engaging in extracurricular activities like sports or clubs or pleasing an adult in some way).

Given the school completion issue confronting youth with disabilities, the need for interventions that help more youth with disabilities to engage in and eventually complete high school becomes readily apparent. With this goal in mind, our secondary programs must appeal to youth in some way. In other words, students need to perceive what we ask them to do as relevant to their current or future lives, a sort of face validity if you will. One promising intervention involves the strategic use of vocational assessments. Such assessments focus on vocational and career issues, while being part of a broader construct of transition assessment which encompasses additional areas including independent living, recreation and leisure, and health. Vocational assessments, as described in more detail elsewhere (Clark, Patton, & Moulton, 2000; Kortering, Sitlington, & Braziel, in press; LeConte, 2006; Osborne & Zunker, 2006; Rojewski, 2002), help youth to better understand their own skills and weaknesses, while making a link between staying in high school and a productive post-school career in a job that matches their interests and abilities. The information from vocational assessments also helps teachers to better understand their students by providing insight into their preferences, limitations, and nonacademic abilities (Kortering, et al., in press; Osborn & Zunker, 2006). This insight should

be central to the development of any student's Individual Educational Program (IEP) and eventual transition planning. Furthermore, the new Indicator 13 mandates that all students age 16 and up participate in an age appropriate transition assessment to provide the basis for IEPs with appropriate postsecondary goals, services, and activities.

This study examines the perceived utility and impact of a classroom-based vocational assessment protocol with 29 students judged to be at risk of failing to complete school. This study also establishes information on relevant background information. Key study questions were as follows:

- Do participants enjoy or learn from participating in a vocational assessment process?
- Does the process impact various indices representing career decision making or career ambitions?
- Do participants have realistic career ambitions, while understanding the constructs of IEP and transition planning?

Study Methods

The study methods include a description of the school setting, student participants, instrumentation, and vocational assessment protocol and process. The study took place in two comprehensive high schools in the spring of 2003.

Setting

Two rural and adjacent county school districts (Districts A and B) in a southeastern state were the settings for this study. Census data from 2000 showed population densities for the two settings ranked 25th and 36th among the state's 100 counties. The high school completion rates were 67 % and 72 %, respectively. The Census data also showed unemployment rates of 5.6 and 3.9 (national average of 4.6) and rates of children living in poverty of 18.6 % and 16.1 % (national average of 19.9 %) The per capita personal income was $22,505 and $24,378 (state average of $27,308). The per-pupil expenditures, including child nutrition, for the 2001/02 school year were $6,102 and $7,091, while the state average was $6,695 (North Carolina Department of Public Instruction, 2004).

The overall school populations from which participants came from was 80 % and 96 % Caucasian, respectively, and had respective enrollments of about 2,100 and 1,400 students. School A's minority population was 12 % African American, 6 % Asian, and 2 % Hispanic, non-Latino; School B's largest minority population was also African American (2 %). School A had 21 % of their population receiving free or reduced lunch, while School B had just over 26 %. Both schools have a reputation of focusing on preparing students for college. For illustration, in 2000 the state published statewide data that showed that School B ranked 4th out of 301 state high schools on the Scholastic Achievement Test and School A was just above the state average.

Student Participants

Participating students represented standard-diploma track students who were judged by one of their teachers as being at risk of not completing high school, had a nonacademic block course (physical education, arts or crafts, or elective) so that they could be accessed without affecting their performance on the state's high stakes tests

(End of Course Exams), and were willing to participate. The researchers asked by way of a note to and follow-up conversations with 15 general education educators who routinely taught classes that had students with disabilities and six special educators who were case managers for students on the standard track. We asked these 21 teachers to nominate students they felt were at risk of dropping out. While leaving the decision as to who to nominate to teachers, we encouraged nominating students receiving special education services given our background in special education. The final student participant sample included 29 students (Table 1), with 18 identified as Specific Learning Disabled (LD), five as Behavior/Emotionally Handicapped (BD), three as Attention Deficit Disorder (under Section 504 of the Rehabilitation Act), and two as having a mild Intellectual Disability (ID). One participating student was not in special education.

Participating students and their teachers were familiar with the authors due to our ongoing work at their high school. This feature, we suspect, helped participants to feel comfortable with the process and enhanced their willingness to participate.

Instrumentation

The process included the use of two formal instruments. Our ongoing work with youth, including providing vocational assessments to well over 500 youth and young adults using more than 30 individual vocational assessment instruments, has led us to the use of two instruments that we deem most appropriate for an initial vocational assessment in a school setting. The interest inventory was the Self-Directed Search Form R (SDS-R; Holland, 1996). The SDS-R is appropriate for high school students who aspire toward careers that generally entail some level of college education (Holland, Powell, & Fritzche, 1994). The assessment provides self-reported scores in terms of preferred activities (6 scales, 11 like or dislike items each); competencies (6 scales, 11 yes or no items each); occupations (6 scales, 14 yes or no items each), and self-estimated abilities (2 sets of scales with 6 items each). The results include an 8-14 page report that links one's dominant profile (a reflection of one's three highest scores) to matching job titles, postsecondary majors, and leisure/recreational activities. The SDS-R is a well-reviewed instrument that has proven to be one of the most popular among service providers and researchers, while being conceptually easy to understand (Ciechalski, 2004). It also provides, by way of the Holland typology codes (Realistic, Investigative, Social, Artistic, Enterprising, and Conventional), a direct way to obtain information on over 12,000 jobs from the Department of Labor's Web site and related publications (e.g., Electronic O*NET's Dictionary of Occupational Titles).

The personality or preference test was the Student Style Questionnaire (SSQ) (Oakland, Glutting, & Horton, 1996). The SSQ is based, in theory, on the popular Meyers-Briggs Type Indicator (MBTI). The assessment includes 69 forced-choice items requiring a "yes" or "no" response with a resulting profile along the following four sets of styles: extroverted vs. introverted, practical vs. imaginative, thinking v. feeling, and organized vs. flexible. In an independent review, Rounds and McKenna (2004) found it an adequately developed tool that has the same limitations as the MBTI, namely a reliance on inferences about typology and structural assumptions underlying the various personality types. An inherent advantage of the SSQ is

Table 1

Background Features (N = 29)

Feature or Characteristic	Number (%)
In Special Education	28 (97 %)
SLD	18 (62 %)
BD	5 (17 %)
ADD	3 (10 %)
Mild ID	3 (10 %)
Non Special Ed	1 (3 %)
Grade 9th	15 (52 %)
10th	11 (38 %)
11th	3 (10 %)
Age 15	19 (66 %)
16	8 (28 %)
17	2 (7 %)
School A	17 (59 %)
B	12 (41 %)
Male	20 (69 %)
White	23 (79 %)
Plans to go to college	26 (90 %)

Participants who identified
  2 career ambitions
  Ambitions requiring college
	27*(93 %)
	13 (24 %) required 4 or more years of college
	  4 (7 %) required 2 or more years

Knew what an IEP was? Yes	11 (38 %)
Actual responses	For English, I get extended time on tests; to improve my vocabulary; Read aloud and extended time; helps people like me to have advantages to do better in school: learning plan to help you: for people who need extra help; it helps people with tests and things like more time: a student's education and college plan; to wing off it.
Know what transition planning is? Yes	0

*One identified one ambition and one unable to identify any.

that many high school teachers will be familiar, on a practical and conceptual level, with the MBTI given that it is the most widely used personality test today.

The pre- and post-process surveys were informal in nature. We constructed the survey questions after reviewing other measures of career decision-making readiness (e.g., *Career Thoughts Inventory*, *Career Decision Scale*), consulting with three high school special education teachers and finally complying with the University Institutional Review Board. The former helped provide questions that would yield useful for information individual case managers and teachers, while the latter ensured that we asked appropriate questions in a nonintrusive manner.

Vocational Assessment Process

We designed the vocational assessment process so that it could be used in most any high school or related service setting, including the use of paper/pencil assessments, assessments with a Level A qualification requirement, and assessments that are readily accessible. The process was as follows. Twelve of the 21 teachers nominated 40 students who they deemed at risk of dropping out and felt would benefit from assistance with identifying appropriate post-school goals. We then identified students who were available by having a nonacademic class which reduced the number to 32 potential participants. Next, we mapped out student availability by instructional block periods (periods one through four) and targeted two to four students to work with for the respective periods over a two-day period. Once identified, we obtained prior approval from their nonacademic instructor the week before we planned to retrieve participants and asked the students for their written consent to participate. If the instructor was reluctant to allow the student to participate, we did not retrieve the student (this was the case for two potential student participants). All of the remaining individual students were willing to participate and most expressed excitement over "getting out of a class." The actual process involved retrieving the participants in groups of two to four and bringing them to a separate office for assessment purposes. We explained the process to participants, asked them if they had any questions (and when they did we answered them), and, again, allowed them an opportunity to not participate. One potential participant, after hearing more about the process, declined to participate.

Once in the office and after an introduction to the process, each student received a packet that included a pre-process survey that provided baseline data, background survey, an interest inventory (SDS-R), and personality or preference test (SSQ). Participants took the initial pre-process survey, then the background survey and interest inventory (SDS-R), and finally the personality or preference test (SSQ). The authors were on hand to answer questions and help with the process. After the session, participants completed the post-process survey.

Testing results were done on-site as participants completed the survey and then the instruments, the SDS-R results were orally interpreted by the lead author with a follow-up computer-generated report ranging from 10 to 15 pages. The same was done for the SSQ which included two four-page printouts of their results (narrative and graph). One report was for students, the other for their case manager. The authors reviewed the results with individual students and in small groups. At the conclusion, participants were encouraged to ask questions about the results and the process in general. The entire process took 55 minutes to 70 minutes per small group (testing, interpretation, and questions and answers). If the participants wanted, we kept them for the remainder of the period and participated in their group discussions, generally focusing on each other's results and how they felt about what the results said about their peers. An interesting side was that students often debated each other on their results, with peers often pointing out the accuracy of the test results for another student versus what that student thought.

Results

The results include a comparison of pre-process and post-process responses and related findings relative to key questions. The related findings established some general information on participants, while the pre/post measures provided insight as to the impact of the vocational assessment process. The final section established information about how participants felt about the process in terms of perceived utility and what they liked the best and least.

Participants' Career Ambitions and Understanding of IEP and Transition Planning

Table 1 shows that nearly all of the participating students expressed a desire to go to college and all but two identified two career ambitions they deemed appropriate. While nearly all participants expressed plans for attending college, only a third of the career ambitions required some level of college education based upon the job titles and educational requirements (see Electronic O*NET's Dictionary of Occupational Titles). Eleven students indicated they knew what an IEP was with the resulting answers suggesting that some had some knowledge, but no one really conveyed a full understanding. Not a single student indicated knowing what transition planning was.

Impact on Career Decision Making or Reported Career Ambitions

Using a Likert-like scale, Table 2 displays the pre- and post-process results. Across the five items, none of the differences emerged as statistically significant. With a cautionary note about limited statistical power and duration of the process, the results suggest that vocational assessment process, as delivered, proved ineffective in changing student perceptions on various indices relating to career decision making. As further evidence for the lack of impact, only two students indicated a change in their career ambitions as a result of their participation in the process.

Participants' Perception of the Process

Table 3 shows that half of the participants deemed the SSQ their favorite part of the process and a third felt it was the SDS-R. Nearly all of the participants reported that they had learned something from the process with two thirds indicating that they had actually enjoyed participating. Nearly all of the participants recommended the vocational assessment process for their friends.

In terms of what participants liked best and least about the vocational assessment process, most participants provided a response

Table 2

Pre/Post Process Results

Indices	Pre	Post	
	M (SD)	M (SD)	t-value
I know what these jobs require in terms of skills.	3.55 (1.53)	3.86 (1.46)	-.850
I understand my interests and abilities.	3.62 (1.32)	3.97 (1.12)	-1.260
I know how to get an appropriate job after leaving school.	3.93 (0.92)	3.76 (1.30)	.571
I have the work habits and attitudes for keeping an appropriate job.	3.90 (0.86)	4.00 (1.17)	-.399
I have the knowledge and skills needed for the jobs that I am interested in.	.03 (1.21)	3.66 (1.42)	.983

Note: 1 = Strongly Disagree; 2 = Slightly Disagree; 3 = Unsure; 4 = Slightly Agree; 5 = Strongly Agree; After further conversation with the lead author the two participants who could not identify two jobs were able to come up with two career ambitions for the purpose of this survey.

Table 3

Participant Feedback on Process

Question: Answer	n (%)
Favorite Part of the Process:	
SSQ	15 (52 %)
SDS-R	9 (31 %)
Background Survey	4 (14 %)
All of it	1 (3 %)
Did you learn something from the process? Yes	25 (86 %)
Did you enjoy participating? Yes	20 (69 %)
Would you recommend it for your friends? Yes	26 (90 %)

(see Table 4). For the best part, nearly half related to "learning about themselves" in some way, while a few related to some aspect of learning about suitable careers. Some participants provided general comments that were not categorized, while a couple did not respond. For what they liked least, the majority identified some aspect of the testing process or an individual test or pointed to general comments that were not categorized. A minority of participants indicated "nothing" or did not provide a response.

In summary, the results suggest that the vocational assessment process failed to impact the indices representing career-decision making readiness and actual career ambitions. Other findings suggest that participants, despite years of services in special education, were unable to articulate a full understanding of the IEP and were unfamiliar with the emerging concept of transition planning. Participants appeared to enjoy the process overall and offered insight into what they deemed as the best and worst aspects of the process.

Discussion

Various limitations are of concern in this study. First, the two distinct high school settings may not represent all high schools. The racial distribution, in comparison to national census data, at one high school is 88 % White, while one high school has an unusually high (6 %) rate of first and second generation Asian students (National Research Council, 2002). A second limitation is the dependence on participants reporting of their perceptions. We assumed that participants were honest in reporting their perceptions, but can not prove this. A third limitation is the grouping of all students with disabilities

What Did You Like Best/Least About the Vocational Assessments?

What did you like best?

I Learned About Myself (14 or 48%)

I learned something about myself; Important beliefs and social factors; Tells you more about yourself; Reading about myself; I liked when it explained about myself; Learning about student styles; The results were helpful, my graph about myself; Writing and reading results, learned something[1]; Found out things I needed to know

Provided Career Options for Me (6 or 21%)

Gave me career choices; The part about finding a job that I might like; List of jobs that follow my career path; Helped me with my future; Finding careers that I possibly might do; It showed me what I wanted to do

Miscellaneous (7 or 24%)

None of it; Nothing; They were too easy; Got out of class; No class; It was very accurate; It was mildly entertaining
No response (2 students)

What did you like least?

Some Aspect of or a Specific Test (10 or 35%)

Too many questions, Too long; Lots of questions; When the SSQ made you select a or b, could only pick one; Boring; The long reading; all the questions;[2] The survey was boring; They take forever; The personality test; SDS-R

Miscellaneous (8 or 28%)

I had to do it on my birthday; All of it; The job list; Not so accurate on jobs for me; Taking the time to learn what I already know; Having to sit here; Sometimes it was hard; Missing class
Nothing (6 students)
No response (5 students)

[1] Five students had this response.
[2] Two students had this response.

and their peers into one group. We deemed this arrangement appropriate given their related learning and behavior problems, similarity in services and classes, and lack of differentiated instruction (by disability) in the general education classroom. A related concern is that the participating students represented a small proportion of overall students with disabilities and a further subset of those deemed by a teacher as at risk of dropping out. Further information on the advantages and disadvantages of this approach is in a recent review by Sabornie, Cullinan, Osborne, and Brock (2005). A fourth limitation is that the process involved only one instructional period or 90 minutes. Vocational assessment professionals recommend that the assessment be an ongoing and more involved activity (LeConte, 2006; Neubert, 2003; Rojewski, 2002). Finally, we relied on only two vocational assessment instruments, one of which (the SDS-R) may not have been the best option for those identifying career ambitions that did not involve a college education. For these students, the Self-Directed Search Form E (Holland, 1996) may have been a better option. Finally, traditional vocational assessments, like those used in this study, can be improved when used in conjunction with nontraditional measures, including criterion referenced measures, measured abilities, consumer self-ratings, and ecological assessments (Parker & Schaller, 2003).

Practical Implications

The initial implication is that this study suggests that a vocational assessment process can be implemented in a local school setting.

Furthermore, our evidence suggests that the majority of students will enjoy the process and nearly all will perceive themselves as learning from it. Aside from professional time, the actual monetary cost of the assessments in this study is nominal. In addition, the SDS comes in other forms including Form E (for those with limited reading levels while aspiring for immediate employment after high school) and Explorer (for 7th and 8th graders or older students with little or no job history). We also recommend purchases of supplemental materials, including the *SSQ's Classroom Applications Kit* (Horton & Oakland, 1996), *The Self-Directed Search and Related Materials: A Practitioner's Guide* (Reardon & Lenz, 1998), and related resources. The SDS and SSQ are but two examples of vocational assessment tools and there are many more out there (Clark, Patton, & Moulton, 2000; Whitfield, Feller, & Wood, 2008; Timmons, Podmostko, Bremer, Lavin, & Willis, 2005).

A second practical implication stems from a better understanding of what students have to say about vocational assessment. In general, they perceive the process as helping them learn about themselves and potential careers, while generally enjoying the experience. Helping students to better understand how a high school education affects their future seems crucial to efforts to keep them in school, as does helping them to enjoy some aspect of their high school education. For the former, as Parsons (1909) first described, "If a boy takes up a line of work for which he is adapted, he will achieve far greater success than if he drifts into an industry for which he is not fitted" (p. 3). The key to finding one's suitable line of work is an understanding of themselves and suitable career options. As to the latter (enjoying school), an increasing number of youth, including those with disabilities (Kortering & Braziel, 2001), are in need of positive experiences while in high school (Csikszentmihalyi, & Larson, 1984; Cushman, 2003). The positive experience associated with participating in vocational assessments seems an ideal way to help get them engaged in learning and schooling (Finn, 1989).

Research Implications

The study findings support earlier work showing that students with disabilities often lack appropriate career ambitions or an understanding of suitable post-school options given their unique talents and limitations (Kortering & Braziel, 2000; Rojewski, 2002). Future research needs to examine the career development status and process for students with disabilities. Lindstorm and Benz (2002), as an example, examined the process of career development for young women with severe learning disabilities (SLD). Their study identified specific features affecting one's career development, including an individual's motivation and determination, family support and advocacy, career exploration activities, vocational-related training, and supportive work environments. These same features may need to be examined in the context of high school special education programs and IEPs. For instance, various features could be deployed in conjunction with pre- and post-outcome measures of career decision making or career maturity to assess their respective impact.

A second research implication relates to the feature that students did not appear to understand the IEP or transition planning. This finding, while supporting previous research with college students with SLD (Hitchings et al, 2001), is disturbing in light of the field's adoption of self-determination as a desired feature of special education programming (Eisenman, 2006) and the need for students to make informed choices about programs and post-school options(Test, Aspel, & Everson, 2006). Future research needs to further examine how best to help students learn about themselves in the context of special education services and their active participation in the IEP process.

A final research implication involves the issue of how best to facilitate a student's move toward more appropriate career ambitions. In this study, participants expressed a desire to attend college yet their career ambitions reflected jobs that did not require college. Clearly, this contradiction suggests inappropriate ambitions at some level. This finding relative to postsecondary aspirations supports earlier research that showed the vast majority of 10th graders wanting to go to college, yet over time this ambition waned significantly (Hitchings, Retish, & Horvath, 2002). The same pattern may have held for this participant sample as they moved through high school. Nonetheless, a brief exposure to a vocational assessment process, in and of itself, was not powerful enough to influence youth ambitions. This finding, again, supports the work of others who suggest that vocational assessment be an ongoing and more involved process (Neubert, 2003; Rojewski, 2002). Despite being liked by students, the process failed to have an impact on various indices of career decision making and career ambitions. Future research efforts should examine levels of career decision making or career maturity after students have been exposed to more intense and in-depth career-related experiences and activities, including vocational and technical courses, appropriate summer employment (Kortering & Braziel 2000), career-related activities (Carew, 2005), and perhaps Internet-based career activities (Harris-Bowlsbey, Dikel, & Sampson, 2002).

Finally, their understanding of themselves, specific to individual talents and limitations and interests likely to affect their transition to post-school careers, seems a major underpinning to attempts to help youth to participate in their IEP and stay in school. Martin and his colleagues (2006) provide thoughtful commentary on how best to get students to be more active in the IEP process and the importance of such an outcome. Similarly, Chamberlain, Eisenman, and McGahee-Kovac (2005) demonstrate that students and teachers perceive important benefits to getting youth engaged in self-determination activities while in school. Given the knowledge and insight, as reported by students seeing the process as helping them learn about themselves, that can be generated it seems an ideal point of reference for better preparing students to be self-determined. The key here may be to deploy vocational assessment in an ongoing and more in-depth manner (Neubert, 2003) as required under Indicator 13.

In closing, aside from helping more students with disabilities to complete high school, the most important thing we do is prepare them for the workforce of tomorrow. Krumboltz and Vidalakis (2000) articulate how vocational assessments, especially when used in conjunction with longer term interventions, can facilitate more appropriate educational and vocational programming that will keep them in school while preparing them for desirable post-school outcomes, including postsecondary education and suitable employment (Levinson & Palmer, 2005). Such assessments can also be central to making informed decisions as to one's high school educational track or program of study (Osborn & Reardon, 2006). Furthermore, vocational assessment holds promise for helping engage students in learning and perhaps enjoy at least one aspect of school.

References

Anderson, A., & Christenson, S. (2006). Prediction of dropout among students with mild disabilities: A case for the inclusion of student engagement variables. *Remedial and Special Education, 27*, 276-292.

Carew, R. (2005). *The complete idiots guide to discovering your perfect career.* New York: Penguin Group.

Chamberlain, M., Eisenman, L., & McGahee-Kovac, M. (2005). A teacher inquiry group on student-led IEPs: Starting small to make a difference. *Teacher Education and Special Education, 28,* 195-206.

Christenson, S. L., Sinclair, M. F., Lehr, C. A., & Godber, Y. (2001). Promoting successful school completion: Critical conceptual and methodological guidelines. *School Psychology Quarterly, 16*, 468-484.

Ciechalski, J. C. (2004). Self Directed Search (4th ed.). In J. T. Kapes & E. A. Whitfield (Eds.), *A counselor's guide to career assessment instruments.* Tulsa, OK: National Career Development Association.

Clark, G. M., Patton, J. R., & Moulton, L. R. (2000) *Informal assessments for transition planning.* Austin, TX: Pro-Ed.

Csikszentmihalyi, M., & Larson, R. (1984). *Being adolescent: Conflict and growth in the teenage years.* New York: Harper Collins – Basic Books.

Cushman, K. (2003). *Fires in the Bathroom: Advice for teachers from high school students.* New York: The New Press.

Eisenman, L. T. (2006). Self-determination interventions: Building a foundation for school completion. *Remedial and Special Education, 28,* 2-8.

Finn, J. D. (1989). Withdrawing from school. *Review of Educational Research, 59,* 117-142.

Griffen, B. W. (2002). Academic disidentification, race, and high school dropouts. *The High School Journal, April/May*, 71-81.

Harris-Bowlsbey, J., Dikel, M. R., & Sampson, J. P. (2002). *The Internet: A tool for career planning* (2nd Edition). Tulsa, OK: National Career Development Association.

Hitchings, W. E., Retish, P., & Horvath, M. (2002). Academic preparation of adolescents with disabilities for postsecondary education. *Career Development for Exceptional Individuals, 28,* 26-35.

Hitchings, W. E., Luzzo, D. A., Ristow, R., Horvath, M., Retish, P., & Tanners, A.(2001). The career development needs of college students with learning disabilities: In their own words. *Learning Disabilities Research, 16,* 8-17.

Holland, J. L., Powell, A. B., & Fritzche, B. A., (1994). *SDS Self-Directed Search: Professional User's Guide.* Odessa, FL: Psychological Assessment Resources.

Holland, J. L., (1996). *Self-Directed Search Form E* (4th ed.). Odessa, FL: Psychological Assessment Resources.

Horton, C., & Oakland, T. (1996). *SSQ's Classroom Applications Kit.* San Antonio, TX: Psychological Corporation.

Kortering, L. J., Konold, T. R., & Glutting, J. (1998). Why come to school? An empirical investigation on what youths have to say. *Journal of At-Risk Issues, 5,* 1-16.

Kortering, L. J., & Braziel, P. (2000). A look at the expressed career ambitions of youth with learning disabilities. *Journal of Vocational Special Education, 23,* 24-33.

Kortering, L. J., & Konold, T. R. (2005). An examination of reasons for coming to school among youth with learning disabilities. *Journal of At-Risk Issues, 11,* 1- 16.

Kortering, L., Sitlington, P., & Braziel, P. (in press). Age appropriate transition assessment as a strategic intervention to help keep youths with emotional or behavioral disorders in school. In D. Cheny (Ed.), *Transition of students with emotional or behavior disorders: Current approaches for positive outcomes* (2nd ed.). Arlington, VA: Council for Children with Behavior Disorders and the Division on Career Development and Transition.

Krumboltz, J. D., & Vidalakis, N. K. (2000). Expanding learning opportunities and using career assessments. *Journal of Career Assessment, 8,* 315-327.

LeConte, P. (2006). The evolution of career, vocational, and transition assessment: Implications for the Summary of Performance. *Career Development for Exceptional Individuals, 29,* 114-124.

Levinson, E. & Palmer, E., (2005). Preparing students with disabilities for school-to-work transition and post-school life. *Counseling, 101,* 11-15.

Lindstorm, L., & Benz, M. (2002). Phases of career development case studies of young women with learning disabilities. *Exceptional Children, 69,* 67-83.

Martin, J., Van Dyke, J., & Greene, B. (2006). Direct observations of teacher-directed IEP meetings: Establishing the need for student IEP meeting instruction. *Exceptional Children, 72,* 187-200.

National Research Council (2002). *Minority students in gifted and special education.* Washington, DC: National Academies Press.

Neubert, D. A. (2003). The role of assessment in the transition to adult life process for students with disabilities. *Exceptionality, 11,* 63-75.

North Carolina Department of Public Instruction. (2004). *North Carolina public schools: Statistical Profile 2004.* Raleigh, NC: Department of Public Instruction.

Oakland, T., Glutting, J., & Horton, C. (1996). *Student styles questionnaire.* San Antonio, TX: Psychological Corporation.

Osborn, D. S., & Reardon, R. C. (2006). Using the Self-Directed Search – Career Explorer with high risk middle school students. *The Career Development Quarterly, 54,* 269-273.

Osborn, D. S., & Zunker, V. G. (2006). *Using assessment results for career development* (7th ed.). New York: Brookes/Cole Publishing.

Parker, R. M., & Schaller, J. L. (2003). Vocational assessment and disability. In E. M. Symanski & R. M. Parker (Eds.), *Work and disability: Issues and strategies in career development and job placement* (pp. 155-200). Austin, TX: Pro-Ed.

Parsons, F. (1909). *Choose a vocation.* Broken Arrow, OK: National Career Development Association.

Reardon, R. C., & Lenz, J. G. (1998). *The Self-Directed Search and Related Holland Materials: A practitioner's guide.* Odessa, FL: Psychological Assessment Resources.

Rojewski, J. W. (2002). Career assessment for adolescents with mild disabilities: Critical concerns for transition planning. *Career Development for Exceptional Individuals, 25,* 73-95.

Rounds, J., & McKenna, M. C. (2004). Student Style Questionnaire. In J. T. Kapes & E. A. Whitfield (Eds.), *A counselor's guide to career assessment instruments* (pp. 77–84). Tulsa, OK: National Career Development Association.

Sabornie, E., Cullinan, D., Osborne, S., & Brock, L. B. (2005. Intellectual, academic, and behavioral function of students with high-incidence conditions: A cross categorical meta-analysis. *Exceptional Children, 72,* 47-57.

Test, D. W., Aspel, N. P., & Everson, J. M. (2006). *Transition methods for youth with disabilities.* Columbus, OH; Merrill Publishing.

Timmons, J., Podmostko, M., Bremer, C., Lavin, D., & Willis, J. (2005). *Career planning begins with assessment.* Washington, DC: National Collaborative on Workforce and Disability for Youth, Institute for Educational Leadership.

Whitfield, E. A., Feller, R., & Wood, C. (2008). *A counselor's guide to career assessment instruments.* Broken Arrow, OK: National Career Development Association.

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Turning Around Failing Schools

Reviewed by Art Stellar

Turning Around Failing Schools. Joseph Murphy and Coby Meyers, 2008. Thousand Oaks, CA: Corwin Press, A Sage Publications Company) [ISBN No. 1-4129-4097-9]

Some schools have been designated by various research studies as dropout factories since such high schools produce more dropouts than graduates. Obviously, these failing schools are candidates for a turnaround process; however, they are not alone as student failure usually begins in elementary school and is solidified in middle school. Other high schools might not have extremely high dropout rates, yet they fail students in other ways.

Although this book does not address the correlation between a "bad school" and dropouts, this reviewer would suggest as a working hypothesis that "bad schools" produce more dropouts than "good schools." If that is the case, then "bad schools" need to be "turned around" to lower the dropout rates.

Turning Around Failing Schools does an excellent job of defining terms for "turnarounds," the process for turning around an organization and describing a conceptual model for successful turnarounds. The authors have combed the professional literature of the organization sciences for a means of systematically transforming an organization from being underperforming to being successful. They spice up their writing with vignettes and quotes from distinguished professors and practitioners.

The basic model of organizational turnaround is outlined in a flow chart diagram (Figure 1.1, p.11). It has two major stages: disintegration and reintegration. The disintegration stage begins with causes—whether internal or from the environment—to symptoms and signals which show up as decreasing performance leading to failing performance culminating in a crisis. Reintegration begins with the recognition that the organization is in a turnaround situation. The reaction attempts to determine the attribution of cause and response which involved inaction and defensive action, a faulty action and, perhaps a preventative action. This analysis produces a turnaround response that operates with the current organizational context building upon retrenchment and recovery. The ultimate consequence is either failure or recovery.

Educators will recognize terms from other organizations that describe what transpired in declining schools. For example, the biggest reason for an internal cause of failure is bad management or leadership or, in the case of a school, a bad or ineffective principal. The authors quote from numerous other aspects that management failures are the most prevalent causes of business calamities. Another repeatedly cited cause is lack of basic planning and weak control systems around finances or other issues. The answer is "Getting the Right Leadership," Chapter Six. The authors even mention the symbolic value of appointing a new leader and making the former leader a scapegoat for the problem so others can move forward.

A criticism of this book is that most of the research comes from the business world with only 72 pages actually devoted to schools. That is understandable when one considers that there is more literature on organizational decline in businesses. This is a relatively new topic for schools where with regard to school turnarounds, "Success is not the norm" (p. 318). In fact, reform-minded decisionmakers who embark on a turnaround are advised: "You will be criticized and sometimes vilified. Your efforts may be discarded when you leave" (p. 320) and "Be prepared for the long haul" (p. 321). Fortunately, the sections on schools are at the end of the book, so the reader might be more optimistic reading about how turnarounds work in business.

The eight key lessons from the education turnaround literature are:

> Turnarounds can work, although success is not guaranteed . . . no one intervention appears to be more successful than others . . . . some reports suggest that turnaround attempts are successful about half the time.

Since single turnaround interventions do not always succeed, mixing and matching to develop a comprehensive approach seems promising.

Successful turnaround schools almost always have good, if not exceptional principals.

Cooperation and human development are two elements of capacity building that failing schools sometimes lack but need to move forward.

When teachers do not buy in to the turnaround intervention(s), failing schools do not improve.

Since many of the students in failing schools face disruptive factors to learning outside of school, turnaround initiatives should engage parents on some level.

Failing schools need ample fiscal resources to turn around.

In their attempts to turn around, failing schools should consistently assess themselves . . . (p. 321-322).

Turning Around Failing Schools is a good book for one looking to develop a framework for understanding the issue. It is long on the abstract and short on the concrete. The education section is a bit iffy as the language is inconclusive about what really works. Nevertheless, an experienced educator could fill in the blanks in the proposed process until more research is done on Turning Around Failing Schools.

Reviewer

Dr. Art Stellar is Superintendent of Taunton Public School, Massachusetts, and former Chairman of the Board for the National Dropout Prevention Network.

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