

**Perspectives of Suburban Public School Teachers on the Characteristics of
Students At-Risk for Dropping out of School ¹**

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Abstract

This study focuses on a major problem facing today's educators: high school dropouts. Numerous studies have been conducted to identify the reasons that students drop out of school and programs that may address the needs of students at-risk for dropping out of school. Literature in this area was reviewed to identify what can be learned from these studies.

Research questions addressed differences in teacher perspectives of the characteristics of elementary, middle, and high school struggling students. Differences in teachers' perspectives based on tenure and type of teaching assignment were examined. A sequential, mixed methods approach was taken. The researchers began with a quantitative survey of 108 teachers, followed by focus groups with 12 elementary and secondary teachers. The research was conducted in two suburban school districts. The analysis indicated that characteristics of at-risk students fall into four dimensions: *Family Involvement*, *Behavior*, *Achievement*, and *Family Background*. Significant differences were found for *Achievement* with secondary teachers reporting higher mean scores than elementary teachers. Additionally, significant differences were identified for elementary classroom teachers in regards to *Achievement*. Elementary classroom teachers reported higher mean scores than elementary non-classroom teachers for this dimension.

The data gained from the study can be used to inform decisions regarding the identification of at-risk students. It also provides information related to support services aimed at assisting struggling students. Determining if differences in perspectives exist among the levels of teachers can be beneficial in identifying students before they become at-risk for dropping out of school. This study benefits students, parents, teachers, school administrators, central office administrators, and school committee members as these stakeholders look to address the dropout problem that plagues high schools across the nation.

Introduction

The rate at which students drop out of school has remained about the same for the past 30 years. However, in today's workforce, dropouts are far less likely to obtain a stable job than in past generations (Monrad, 2007). More than half a million young people drop out of high school each year (Heckman & LaFontaine, 2007). Addressing this problem is critical for several reasons. The average earning difference between a dropout and a graduate is estimated at about \$9,000 annually or over \$260,000 over a career. The economic consequence is that dropouts contribute to the economy only about half as much as high school graduates (Dynarski et al., 2008). Additionally, dropouts are more likely to draw large government assistance and have a higher rate of imprisonment, poor health and lower life expectancies when compared to graduates (Dynarski et al., 2008).

Over the years, numerous studies have been conducted to determine effective strategies to assist students at-risk for dropping out of high school (Shannon & Bylsma, 2003). Recommendations include targeted interventions and school-wide interventions aimed at assisting in their academic, social and personal lives (Dynarski et al., 2008). However, the key to effectively addressing the problem may lie in identifying at-risk students at the earliest age possible. While students drop out of school at the high school level, characteristics of at-risk students are often seen as early as elementary school (Bridgeland, Diluilo, & Balfanz, 2009). Perspectives of teachers and school administrators appears to reflect an understanding of the problem but some confusion over identifying students at-risk of becoming high school dropouts (Bridgeland, Diluilo, & Balfanz, 2009). The purpose of this study is to examine perspectives of public school teachers at elementary, middle, and high school levels in hopes of providing information to assist with identifying students at-risk for dropping out of school at the earliest age possible.

Background of the Study

Looking at the current literature regarding dropout rates and alternative programs, it is evident that many studies have focused on special programs for students at-risk for dropping out. Additionally, much research has focused on why students drop out of school and the contributing factors to the high dropout numbers. Shannon and Bylsma (2003) found that a contributing factor adding to high dropout rates is students that have an unknown location. Data reports relating to high school dropouts often include unknown location as a formal category. It is unclear if these students actually dropped out of school or transferred to another school but did not properly report this information. Additionally, students that receive a GED certificate are categorized as dropouts (Shannon & Bylsma, 2003). A number of programs and policies can address these issues. This includes substantial reform in school policies and procedures (Shannon & Bylsma).

School Structure

In a 2003 study, Lee and Burkam explored the link between a student's decision to drop out of school and school organization. Social background, academic background, and school demographics all play a part in the decision (Lee & Burkam, 2003). The study concluded that the structure of the school plays a role in keeping students in school until graduation. Specifically, schools offering a challenging curriculum tend to keep students from dropping out (Lee & Burkham). Furthermore, the study revealed that students' perceptions of positive relationships with teachers impact their willingness to stay in school. However, Lee and Burkham did not identify any definitive link between school structure and dropout rates.

Shannon and Bylsma (2005) researched best practices for dropout prevention within current school structure. Their findings indicate that personalization of instruction and enhanced personal relationships are essential components for prevention programs. School and district policies as well as state support are also needed to ensure implementation of effective programs.

Approaches to Dropout Prevention

Rumberger (2004) studied a number of approaches to dropout prevention. This includes supplemental programs, alternative programs that target at-risk students, and systemic change. However, these programs may not be successful for all students due to disparities among resources for various schools, communities and families (Rumberger). Additional research suggests that dropout prevention has three essential components (McPartland & Jordan, 2004). Structural and governance change, curriculum and instruction, and teacher support systems must be in place for any prevention program to be successful (McPartland & Jordan).

Out of School Programs

Lauer, Akiba, Wilkerson, Apthorp, Snow and Martin-Glenn (2006) analyzed the effects of out of school-time programs on at-risk students. The study included programs for students of various ages, K-12. Summer time programs and after-school programs were studied. Research led to the following conclusions: out of school time programs can benefit students in reading and mathematics, timeframes of the programs have no effect on effectiveness, students in all grades benefit from reading programs, mathematics programs are more beneficial for secondary students, social programs can have positive effects, and one-on-one tutoring can be helpful for all students (Lauer et al. 2006).

Reading Recovery

Low-performing students who were involved in reading recovery programs were the subjects of a study conducted by D'Agostino and Murphy in 2004. This study was a meta-analysis of 36 studies conducted from 1986-1997. The researchers developed norm-referenced means and standard deviations for two groups (i.e., low-achieving reading students and students not enrolled in reading recovery). The study was searching to find a correlation between participation in reading recovery programs and high post-test scores on various reading measures. The result of the study was that. Although a link was likely, there was no statistically significant link established with any certainty (D'Agostino & Murphy, 2004).

What Types of Schools Lead to Dropout?

In a 2004 study, Balfanz and Legters analyzed data for a ten-year period, focusing on four-year cohorts (grades 9-12). The researchers then developed a characteristic they labeled “promoting power” (Balfanz & Legters, 2004). This term was used to refer to the likelihood of students to graduate from high school in the traditional four year time span. High schools throughout the country were then categorized based on this promoting power. Conclusions were that nearly 2,000 high schools have poor promoting power. Although these schools are found in every state, they are concentrated in northern cities, western cities, and southern states. Three large urban districts, Los Angeles, Chicago, and New York, had the weakest promoting power. Additionally, minority students are more than twice as likely to attend a school with poor promoting power (Balfanz & Legters).

Perspectives on the Dropout Problem

Civic Enterprises, a public policy firm that assists nonprofits, commissioned a study in 2009 by Bridgeland, Dilulio, & Balfanz regarding perspectives of teachers and principals on the dropout problem. The study was conducted via national representative surveys of high school teachers and principals. This was followed up with focus groups of Superintendents and school board members in cities, suburbs and rural districts with low-achieving schools. The major finding of the study is that there appears to be a gap in expectations between teachers and students (Bridgeland, Dilulio, & Balfanz, 2009). When compared to findings of earlier student surveys, principal and teacher perspectives expressed strong support for alternate programs, connecting to real world activities, and establishing early warning systems to assist students. This differs from the student and parent perspective that revealed that academic success was tied to high expectations for students (Bridgeland, Dilulio, & Balfanz, 2009).

Teachers and principals identified several areas that may help students succeed. This includes accurate graduation data and college readiness accountability, high expectations for students, improved communication and collaboration among stakeholders, secondary school redesign, high teacher

quality, early warning systems, ongoing literacy programs, and alternate programs (Bridgeland, Dilulio, & Balfanz, 2009). Teachers and principals also identified school to home relationships as a key ingredient to addressing the dropout problem. Nearly 70% of principals and 74% of teachers felt that most of the responsibility for students dropping out rested with the parents. When asked to identify reasons students drop out of high school, not enough support from home was the top response (Bridgeland, Dilulio, & Balfanz, 2009).

School Characteristics

In a 2007 study, a three-stage analytical process was used by Christle, Jolivette, & Nelson to investigate school factors influencing dropout. Data from the Kentucky Department of Education was utilized to identify characteristics related to dropout rates. Stage 1 involved several variables related to risk factors as identified in previous research. A correlation analysis was conducted with data from two successive academic years. In stage 2, a purposeful sample of 40 high schools was used to represent extreme cases of dropout. The sample contained 20 schools representing low student achievement and 20 schools with high achievement scores. A multivariate analysis of variance (MANOVA) was used to determine if there was a significant difference between the two groups regarding the 12 variables from stage 1. In the final stage, data were collected from 8 schools through an administrator survey, staff interviews, and observations. The schools represented urban, suburban and rural schools (Christle, Jolivette, & Nelson, 2007). Results of the first stage showed a positive correlation with 5 of the 12 variables. The variables which were identified included suspension rate, attendance rate, law violation rate, and retention rate. In stage 2, it was determined that the 20 high dropout schools differed significantly from the 20 low dropout schools on 7 factors. This finding included attendance rate, successful transition to adult life, student achievement, and economic status. The third stage revealed four major differences between administrators of high dropout schools as compared to those at schools with low dropout rates. The differences included administrative experience, school climate, family involvement, and early indications of at-risk (Christle, Jolivette, &

Nelson, 2007). The final conclusion of the study was that dropping out of school was a cumulative process rather than impulsive action.

The California Dropout Research Project issued a brief in 2007 detailing reasons students reported for dropping out of school. Students reported the following reasons as causing dropout: missing too many school days, thinking it was easier to obtain GED, having poor grades, not liking school, not making up work, getting a job, becoming a parent, not completing requirements, not getting along with teachers, and needing to work full time (Rotermund, 2007). The brief looks at data from multiple studies over the past two decades. The results of research from 1990, when compared to research from 2002, show that student response to why they dropped out of school has changed over time (Rotermund, 2007). For example, in a 1990 study, 46% of respondents stated that a main reason for dropping out was “not liking school”. In a 2002 study, this same response was chosen by 19% of respondents. Nearly twice as many dropouts chose “failing school” and “found a job” in 2002 as compared to 1990 (Rotermund, 2007). Overall, the data showed that the students’ reasons for dropping out have changed but remain similar.

Research Questions

This study investigated teacher perspectives regarding at-risk students by addressing the following questions:

- (1) What are the perspectives of **elementary and secondary** (middle and high school) teachers with respect to characteristics of at-risk students?
- (2) Is there a significant difference between perspectives of public school teachers (**elementary and secondary**) with respect to characteristics of at-risk students?
- (3) Is there a significant difference among perspectives of teachers with varying **years of teaching experience** with respect to characteristics of at-risk students?
- (4) Is there a significant difference between perspectives of **classroom and non-classroom/support staff** public school teachers with respect to characteristics of at-risk students?
- (5) Is there a significant difference between perspectives of **regular education and special education** public school teachers with respect to characteristics of at-risk students?

Methodology

A mixed methods research strategy was utilized. The quantitative piece involved data from two groups of teachers (i.e., elementary and secondary) within two suburban school districts. The qualitative section included focus groups of elementary and secondary school teachers from the two districts. The research followed a sequential explanatory design. The quantitative data collection and analysis preceded the focus group analysis. An interpretation of the entire analysis then took place (Creswell, 2009).

Sample

The sample for the quantitative portion of the research was drawn from an accessible population within two small suburban school districts. These districts were chosen for convenience of the sample. Utilizing school email list serves, the instrument was sent to teachers in 7 elementary schools, 3 middle schools and 2 high schools. There were 384 teachers surveyed; the total of completed surveys was 108. The focus groups consisted of 6 teachers from elementary and secondary levels in separate focus groups, based on level taught. The focus group participants were chosen by random sample from the accessible populations. Focus group participants were chosen from the sample utilized for the quantitative portion of the study.

Instrumentation

The surveys for the quantitative portion of the study (Appendices A & B) were based on characteristics of students at-risk of dropping out of school as determined by the National Dropout Prevention Center. Each faculty survey consisted of a common core of 21 items. The high school/middle school survey contained 2 additional items that are not applicable characteristics for elementary students. In addition to the survey items, a number of demographics were included as well as 2 open-ended questions. The instrument utilized a 4-point, Likert-type response scale (i.e., *not important*, *very important*) and was administered via www.zoomerang.com. The instrument was titled "Characteristics of Students At-risk for Dropping Out of School" (CSAD).

To support content validity, the items employed were based on the literature from the National Dropout Prevention Center and reviewed by 3 educational leaders (school administrators). The instrument was piloted with 5 teachers to examine the readability of the instructions, content of the items and the response scale.

For the focus group, the researchers utilized specific questions designed to elicit participant views on characteristics of at-risk students. The researchers also provided participants with allotted time for general discussion and allowed for any concerns that arose during the focus group interviews. A scribe was utilized to transcribe the participant responses (Creswell, 2009).

Data Collection

The quantitative portion of the study utilized the web site www.zoomarang.com for data collection. Surveys were distributed via list-serve e-mail groups at 10 schools within two school districts (7 elementary schools, 3 middle schools, & 2 high schools). A total of 384 teachers were sent surveys links. The total number of respondents was 108.

Focus group data were collected via a scribe while the focus group was conducted. There was also audio taping of the focus group. The researcher had data from the audio tape transcribed.

Data Analysis

In the quantitative portion of the study, Research Question 1 was analyzed using descriptive statistics (frequencies, percents, means, and standard deviations). Research Questions 2 and 4 were analyzed via independent *t*-tests to compare the means of the respective groups. Research Question 3 was analyzed using analysis of variance (ANOVA) to examine differences among the means of three teacher groups, based on number of years taught. For Research Question 2, 3, and 4, Cronbach's alpha was utilized to measure reliability of the data and Bonferroni adjustment was employed for item-level analyses. A factor analysis was also conducted to examine the conceptual dimensions identified by the researchers.

The data from the focus group were primarily descriptive in nature. The researcher identified any common themes among participant responses. Specifically, responses by members of the groups were compared and contrasted to identify similarities and differences in regards to characteristics of low-achieving students. The long-table approach (Creswell, 2009) was used to sort and analyze data to generate themes from the focus groups discussions.

Major Findings

Demographics of the Respondents

Table 1 lists the demographics of the respondents. Review of the data indicates that a larger number of secondary teachers (68) completed the survey as compared to elementary teachers (40). Furthermore, half of the survey responses (54) came from secondary classroom teachers.

Table 1

Demographic Characteristics of Survey Participants (N = 108)

Teacher Characteristic		Grade Level		Total
		Elementary	Secondary	
Classroom	<i>f</i>	26	54	80
	%	24	50	74
Non-Classroom	<i>f</i>	14	14	28
	%	13	13	26
Regular Education	<i>f</i>	24	58	82
	%	22	54	76
Special Education	<i>f</i>	16	10	26
	%	15	9	24
Teaching Experience \leq 10 yrs	<i>f</i>	11	21	32
	%	10	19	29
Teaching Experience 11-19 yrs	<i>f</i>	14	30	44
	%	13	28	41
Teaching Experience \geq 20 yrs	<i>f</i>	15	17	32
	%	14	16	30

Factor Analysis

The inter-item correlation matrix for the *CSAD* survey was examined to determine if there were sets of items that had sufficient inter-item correlation, such that a “factor” or dimension could be generated to describe the relationship of the items. A principal component analysis (PCA) utilizing an oblique rotation was used. Five factors or dimensions were generated. Of the five factors, one (*Social dimension*) was deleted from further analysis since the items were associated with a low alpha reliability, based on Cronbach’s Alpha measurement of $\alpha = .57$. Table 2 contains the four dimensions generated: *Family Involvement* ($\alpha = .77$), *Behavior* ($\alpha = .77$), *Achievement* ($\alpha = .82$), and *Family Background* ($\alpha = .80$). These are displayed in a pattern matrix.

Research Question 1

Table 3 contains the means and standard deviations for the elementary and secondary teachers’ responses to the *CSAD* items. Items are displayed under the corresponding dimension. Dimensions are listed in descending order based on mean scores for elementary teacher responses.

Elementary teacher responses had the highest mean for the *Family Involvement* dimension (3.22), followed by *Behavior* (3.00), *Achievement* (2.90), and *Family Background* (2.52). For secondary teachers, the *Achievement* dimension reported the highest mean at 3.37, followed by *Behavior* (3.02), *Family Involvement* (2.86), and *Family Background* (2.49).

Research Question 2

Statistically significant differences were found across one dimension and five items. For the *Achievement* dimension, significantly higher ratings were present for the secondary teachers ($M = 3.37$) than the elementary teachers ($M = 2.90$) with a $p = .001$. Secondary teachers placed more importance on student achievement than did elementary teachers.

Item-level significance was found for the following items: Low Family Contact with School ($p = .001$), Poor Attendance ($p = .003$), Low Commitment to School ($p = .001$), Lack of Effort ($p = .001$), and Low Achievement ($p = .001$). Secondary teachers reported higher means for Poor Attendance, Low Commitment to

School, Lack of Effort, and Low Achievement. Elementary teachers reported a higher mean for Low Family Contact with School (see Appendix D, Table 3).

Research Question 3

No statistically significant differences were found among tenure groups.

Research Question 4

Elementary teachers, at the dimension level, demonstrated a statistically significant difference between perspectives of classroom ($M = 3.08$) and non-classroom teachers ($M = 2.56$) with regards to Achievement ($p = .001$, $d = .89$).

Research Question 5

No statistically significant difference was identified between regular education and special education teachers. However, secondary teachers demonstrated non-statistically significant trends for three of the four dimensions: *Achievement* $M = 3.30$ and $M = 3.67$ ($p = .024$), *Family Involvement* $M = 2.81$ and $M = 3.22$ ($p = .064$), and *Family Background* $M = 2.42$ and $M = 3.04$ ($p = .004$). For each of these dimensions, Special Education teachers reported higher means than regular education teachers.

Focus Groups

Following an explanatory sequential design, the researcher reviewed initial responses to the CSAD survey to drive focus group questions. Two focus groups were conducted; each consisted of 6 teachers with varied education experience and background. The first focus group consisted of elementary teachers. The second focus group included only secondary teachers. The researcher used the long-table approach for data analysis with a coding system for classification (based on themes) of teacher responses (Patton, 2002).

The researcher categorized teacher responses by theme, based on the four identified dimensions. *Behavior* was the dimension most commonly referenced by elementary teachers (33%). Conversely, *Behavior* was the least frequent response theme (16%) for secondary teachers. Family Involvement was the most common response theme for secondary teachers (38%), followed by Achievement (24%) and Family Background (22%). For elementary teachers,

27% of responses fall under the *Family Involvement* dimension and 22% fall under *Family Background*. The least common response theme for elementary teachers was *Achievement* at 18%.

Recommendations

General Recommendations

Generally speaking, secondary teachers reported a higher importance on *Achievement* as compared to elementary teachers. On the other hand, elementary teacher responses show a greater importance on *Family Involvement* than did secondary teachers. Also of note is that special education teachers at the secondary level reported higher mean scores on all the *CSAD* dimensions and items than the scores of elementary teachers. At the elementary level, regular education teachers demonstrated higher mean scores than special education teachers across all items and dimensions of the *CSAD*. To address these areas, the researcher makes the following recommendations:

- District level K-12 articulation across all content areas
- Increased awareness regarding *Achievement* factors at the elementary level
- Increased awareness regarding *Family Involvement* factors at the secondary level
- Special education and regular education articulation at the elementary and secondary levels

Recommendations for Future Research

This study was limited to the teachers surveyed and/or interviewed in the focus groups. The sample was taken from the accessible population which included two school districts. All teacher participants were working in one of the two same rural/suburban school districts. Thus, the findings may be limited and generalized only for educators with similar demographics (suburban/rural public schools).

The relatively small total of teachers involved in the focus groups ($N = 12$) may also limit the transferability of the data. However, the data collected via the focus

groups can be used as generalized findings (Patton, 2002). To address these issues, the researcher recommends the following:

- Study utilizing the *CSAD*, administered to urban public school teachers
- Study utilizing the *CSAD*, administered to urban-ring public school teachers
- Conduct focus groups of urban and urban-ring public school teachers
- Follow-up study with rural/suburban public school teachers to confirm results.

Conclusion

Data analysis from the study can be shared with all stakeholders. Educators, parents, students, and community members can all benefit from the results of the data collection to gain an increased awareness around the perceptions of teachers regarding characteristics of at-risk students.

The data analysis will also inform decisions relating to dropout prevention programs. Perceptions of elementary, secondary, special education, regular education, classroom, and non-classroom teachers will better inform decision makers as they design and implement support programs and interventions. Furthermore, the study will promote discussion about teacher perspectives relating to at-risk students.

Table 2*Factor Pattern Matrix for the CSAD Data*

Items	Dimensions			
	Family Involvement	Behavior	Achievement	Family Background
Lack of Family Conversations about School	.89			
Low Family Contact with School	.85			
Family Disruption	.65			
Sibling Has Dropped Out	.49			
Early Aggression		.85		
Misbehavior		.63		
Lack of Effort		.97		
Low Commitment to School		.86		
Low Expectations			.79	
Poor Attendance			.55	
Low Achievement			.46	
No Extra-Curricular Activities			.41	
Low Socioeconomic Status				.74
Large Number of Siblings				.73
Low Education of Parents				.70
High Family Mobility				.66
Not living with Both Natural Parents				.53

Note. The following items were not identified as belonging to a dimension: high-risk social behavior, high-risk peer group, learning disabled, and grade retention

Table 3

Means and Standard Deviations for Characteristics of At-Risk Students from: Elementary and Secondary Teachers (N = 108)

	Elementary (n = 40)		Secondary (n = 68)		t	p	d
	M	SD	M	SD			
How important are the following factors in contributing to a student becoming at-risk?							
Family Involvement	3.22	.62	2.86	.64	2.88	.004	
Lack of Family Conversations about School	3.38	.78	3.08	.73	2.04	.044	
Low Family Contact with School	3.33	.76	2.76	.87	3.39	.001*	.70
Family Disruption	3.25	.74	3.00	.80	1.60	.113	
Sibling Has Dropped Out	2.93	.86	2.68	.87	1.44	.153	
Behavior	3.00	.77	3.02	.73	-1.24	.842	
Early Aggression	3.13	.83	2.92	.78	1.27	.207	
Misbehavior	2.90	.88	3.10	.80	-2.00	.219	
Achievement	2.90	.61	3.37	.46	-4.49	.001*	.87
Poor Attendance	3.38	.67	3.74	.56	-3.00	.003*	.59
Low Commitment to School	3.10	.82	3.62	.60	-3.73	.001*	.73
Lack of Effort	2.95	.82	3.49	.74	-3.49	.001*	.69
Low Expectations	2.89	.83	3.25	.82	-2.13	.035	
Low Achievement	2.65	.74	3.42	.65	-5.60	.001*	1.10
No Extra-Curricular Activities	2.46	.82	2.69	.87	-1.31	.194	
Family Background	2.52	.60	2.49	.65	.262	.794	
Low Education of Parents	2.90	.72	2.64	.82	1.61	.111	

* Using the Bonferroni adjustment required item-level significance at the $p < .004$ level and dimension-level significance at the $p < .01$ level.

Note. Effect size guidelines indicate .20 = small; .50 = medium; .80 = large.

The response format was as follows: 1 = *not important*, 2 = *somewhat important*, 3 = *important*, and 4 = *very important*.

Table 3 (continued)

Means and Standard Deviations for Characteristics of At-Risk Students from: Elementary and Secondary Teachers (N = 108)

	Elementary (n = 40)		Secondary (n = 68)		t	p	d
	M	SD	M	SD			
<i>How important are the following factors in contributing to a student becoming at-risk?</i>							
High Family Mobility	2.79	.92	3.18	.78	-2.29	.024	
Low Socioeconomic Status	2.59	.75	2.66	.90	-.393	.695	
Not Living with Both Natural Parents	2.38	.88	2.12	.87	1.47	.143	
Large Number of Siblings	1.95	.86	1.79	.86	.883	.379	
<i>The Following Characteristics Were Not Identified as Belonging to a Dimension</i>							
High-Risk Social Behavior	3.33	.81	3.67	.68	-.624	.553	
High-Risk Peer Group	3.13	.83	3.25	.60	.683	.516	
Learning Disabled	2.83	1.1	3.67	.57	-1.13	.292	
Grade Retention	2.83	.75	2.67	.58	.333	.749	
Parenthood (secondary survey only)	NA	NA	3.25	.78			
High Number of Work Hours (secondary survey only)	NA	NA	2.81	.80			

* Using the Bonferroni adjustment required item-level significance at the $p < .004$ level and dimension-level significance at the $p < .01$ level.

Note. Effect size guidelines indicate .20 = small; .50 = medium; .80 = large.

The response format was as follows: 1 = *not important*, 2 = *somewhat important*, 3 = *important*, and 4 = *very important*.

References

- Balfanz, R., & Legters, N. E. (2004). Locating the dropout crisis: which high schools produce the nation's dropouts? In G. Orfield (Ed.), *Dropouts in america: confronting the graduation rate crisis*, (pp. 243-255). Cambridge, MA: Harvard Education Press.
- Bridgeland, J. M., Dilulio, J. J., & Balfanz, R. (2009). *On the front lines of schools: Perspectives of teachers and principals on the high school dropout problem*. Washington, DC: Civic Enterprises, LLC.
- Christle, C. A., Jolivette, K., & Nelson, C. M. (2007). School characteristics related to high school dropout rates. *Remedial and Special Education, 28*(6), 325-339.
- Creswell, C. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches (3rd ed.)*. Los Angeles: Sage Publications.
- Dynarski, M., Clarke, L., Cobb, B., Finn, J., Rumberger, R., & Smink, J. (2008). *Dropout prevention: a practice guide*. Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc>.
- D'Agostino, J. V., & Murphy, J. A. (2004). A meta-analysis of reading recovery in United States schools. *Educational Evaluation and Policy Analysis, 26*(2), 23-38.
- Heckman, J., & LaFontaine P. (2007). *The American high school graduation rate: Trends and levels*. Bonn, Germany: Institute for the Study of Labor.
- Lauer, P. A., Akiba, M., Wilkerson, S. B., Apthorp, H. S., Snow, D., & Martin-Glenn, M. L. (2006). Out-of-school-time programs: a meta analysis of effects for at-risk students. *Review of Educational Research, 76*(2), 275-313.
- Lee, V. E., & Burkham, D. T. (2003). Dropping out of high school: the role of school organization and structure. *American Educational Research 40*(2), 353-393.
- Monrad, M. (2007). *High school dropout: a quick stats fact sheet*. Retrieved from <http://www.betterhighschools.org>.

- Mcpartland, J. M. & Jordan, W. J. (2004). Essential components of high school Dropout-prevention reforms. In G. Orfield (Ed.), *Dropouts in America: Confronting the graduation rate crisis* (pp. 269-289). Cambridge, MA: Harvard Education Press.
- Patton, M. Q., (2002). *Qualitative research & evaluation methods (3rd Ed.)*. Thousand Oaks, CA: Sage Publications.
- Rotermund, S. (2007). *Why students drop out of high school: Comparisons from three national studies*. Santa Barbara, CA: California Dropout Research Project. Retrieved from <http://www.lmri.ucsb.edu/dropouts>.
- Rumberger, R. W. (2004). What can be done to reduce the dropout rate? In G. Orfield (Ed.), *Dropouts in America: Confronting the graduation rate crisis* (pp. 243-255). Cambridge, MA: Harvard Education Press.
- Shannon, G. S., & Bylsma, P. (2003). *Helping students finish school: Why students drop out and how to help them graduate*. Office of Superintendent of Public Instruction, Olympia, WA.
- Shannon, G. S., & Bylsma, P. (2005). *Promising programs and practices for Dropout prevention: Report to the legislature*. Office of Superintendent of Public Instruction, Olympia, WA.

Appendix A

Characteristics of Students At-Risk for Dropping Out of School (for elementary teachers)

1. Grade level taught _____
2. Years of teaching experience _____
3. Are you a regular education or special education teacher?

4. Are you a classroom teacher or support personnel? _____

How important are the following factors in contributing to a student becoming at-risk?

	Not Important	Somewhat Important	Important	Very Important	Not Applicable
Learning disabled					
High –risk peer group					
High-risk social behavior					
Low achievement					
Grade retention					
Poor attendance					
Low expectations					
Lack of effort					
Low commitment					

to school					
No extracurricular activities					
Misbehavior					
Early aggression					
Low socioeconomic status					
High family mobility					
Low education of parents					
Large number of siblings					
Not living with both natural parents					
Family disruption					
Sibling has dropped out					
Low family contact with school					
Lack of family conversations about school					

Any other characteristic not listed above: _____

What do you think is the most important intervention that can address this problem?

Appendix B

Characteristics of Students At-Risk for Dropping Out of School (for secondary teachers)

1. Subject taught _____
2. Years of teaching experience _____
3. Are you a regular education or special education teacher?

4. Are you a classroom teacher or support personnel? _____

How important are the following factors in contributing to a student becoming at-risk?

	Not Important	Somewhat Important	Important	Very Important	Not Applicable
Learning disabled					
High –risk peer group					
High-risk social behavior					
Low achievement					
Grade retention					
Poor attendance					
Low expectations					
Lack of effort					
Low commitment					

to school					
No extracurricular activities					
Misbehavior					
Early aggression					
Low socioeconomic status					
High family mobility					
Low education of parents					
Large number of siblings					
Not living with both natural parents					
Family disruption					
Sibling has dropped out					
Low family contact with school					
Lack of family conversations about school					
Parenthood					
High number of work hours					

Any other characteristic not listed above: _____

What do you think is the most important intervention that can address this problem?