WINNING THE BATTLE AND LOSING THE WAR: EXAMINING THE RELATION BETWEEN GRADE RETENTION AND DROPPING OUT OF HIGH SCHOOL

SHANE R. JIMERSON, GABRIELLE E. ANDERSON, AND ANGELA D. WHIPPLE

University of California, Santa Barbara

The aim of this investigation is to provide a comprehensive review of dropout research that examines grade retention within both associative and predictive models. A systematic review of seventeen studies examining dropping out of high school prior to graduation demonstrates that grade retention is one of the most powerful predictors of dropout status. The discussion addresses the discrepancies among the perspectives of many educational professionals regarding the effectiveness of grade retention and deleterious long-term correlates. The transactional model of development is presented, which emphasizes developmental trajectories over time, in order to facilitate the interpretation of the association between grade retention and school withdrawal. Educational professionals, teachers, researchers, parents, and policymakers considering the efficacey of grade retention are encouraged to consider the implications of these findings. © 2002 Wiley Periodicals, Inc.

In a review of retention research spanning the last 100 years, Jimerson (2001a) concluded that the results of research published during the past decade examining the efficacy of grade retention on academic achievement and socioemotional adjustment are consistent with the converging evidence and conclusions of research from the remainder of the century that fail to demonstrate that grade retention provides greater benefits to students with academic or adjustment difficulties than does promotion to the next grade. Moreover, results of recent longitudinal retention research suggests that children who are retained are more likely to drop out and less likely to attend post high school educational programs (Jimerson, 1999). The aim of this investigation is to provide a comprehensive review of dropout research that examines grade retention as a predictor variable.

Early Influences on Achievement Trajectories: A Developmental Model

Many dropout researchers have examined and identified multiple influences on achievement trajectories and decisions to drop out (Rumberger, 1995). It has been suggested that dropping out is influenced by the confluence of one's developmental history (e.g., early family experience, home environment, individual characteristics), educational experiences, and current circumstances (Jimerson, Egeland, Sroufe, & Carlson, 2000). Moreover, the results of longitudinal research suggest that dropout is a developmental process, not an event (Jimerson et al., 2000).

In exploring the association of grade retention and high school dropout status, the current investigation has been guided by a transactional model (Collins & Sroufe, 1999; Sameroff, 1992; Sameroff & Chandler, 1975). At its simplest, the transactional model stipulates that the contact between the individual and her or his environment becomes a mutual transaction through which each is altered by the other, which then impacts subsequent interactions in an ongoing and continuous fashion. However, this model builds in complexity, as it also takes into account the social and cognitive states of the individual while simultaneously acknowledging behavior as highly contextual (Sameroff, 1992). Several dynamics are formed that encourage movement toward particular developmental trajectories. As transactions continue, individual-environment interactions begin to reinforce each other across time.

Correspondence to: Shane R. Jimerson, PhD, University of California, Santa Barbara, Gevirtz Graduate School of Education, Santa Barbara, CA 93106–9490. E-mail: jimerson@education.ucsb.edu

Jimerson, Anderson, & Whipple

Thus, at the core of the developmental transactional model is the implication that behavior is always a product of one's developmental history and current circumstance. "In this perspective, early developmental history is given some priority, not because it ineluctably causes later outcomes, but because what the child takes forward from these experiences in part frames subsequent transactions with the environment." (Jimerson et al., 2000, p. 123). To understand the effects of educational experiences on children, it is important to acknowledge the transactional nature of the student's experiences within the classroom, the child's early developmental history, and contemporaneous experiences outside a formal educational setting (Bronfenbrenner, 1986). Each of the child's current experiences has an impact on how she or he interprets later experiences, which will similarly impact experiences are a manifestation of a confluence of earlier factors, which ultimately propel individuals towards alternative pathways. As related to grade retention, the experience of being retained may influence numerous factors determined to be associated with dropping out of high school (e.g., student's self-esteem, socioemotional adjustment, peer relations, and school engagement).

This Review

This literature review focuses on studies examining influences on high school dropout to explore the association between grade retention and dropout status. Whereas most studies examining the effectiveness of grade retention report on short-term outcomes during elementary school and middle school, few studies focus on outcomes during high school (Jimerson, 1999). However, studies focusing on high school dropout, which include grade retention in associative or predictive models, offer further information regarding the long-term connection between grade retention and high school dropout. Past literature implicates high school dropout as a potential deleterious long-term correlate of grade retention (Dawson, 1998a; Jimerson, 2001b; Shepard & Smith, 1990); however, a systematic review of the association has not been presented. This investigation addresses this gap in the literature.

Method

A systematic search of the literature was conducted to identify studies of dropout that included grade retention as a potential predictor. Descriptors such as "dropout," "dropping out," "school withdrawal," "academic failure," "grade retention," "grade repetition," "nonpromotion," "grade failure," "flunked," "failed," "retained," and other suggested synonyms were used to search reference databases. Computer databases searched included the Education Research Information Center (ERIC) and Psychological Information Abstracts (PsycINFO). The results of these searches yielded over 169 matches in PsycINFO and 668 matches in ERIC between 1970 and 2000 with the above terms. Additional studies were identified through examination of the references in the publications obtained for this review.

The following selection criteria were used to reduce the bibliography to the 17 papers included in this review. To be included in this review, (1) the research must be available as a professional publication (typically a journal article or book, a few reports and conference papers), and (2) the results must address the association between dropout status and grade retention. Theses were not included in this review as access to these documents was prohibitive.

Procedures

The plan for review of the 17 papers was to examine the association between high school dropout status and grade retention. Each study was examined by three reviewers who documented the results of analyses considering the relationship between grade retention and dropout status.

Several important considerations were delineated for each study: research design, number of participants, demographic characteristics of the participants, definition of dropout status and grade retention, measures used, and findings (see Table 1).

RESULTS

All reviewed studies including grade retention as a potential predictor of dropping out yielded results demonstrating an association between these two variables. In addition, several studies reported that grade retention was found to be the strongest predictor of later dropout status. A brief overview of each of the papers is presented below in chronological order. A systematic summary of the design and analyses, participants, definition of retention and dropout, measures, and key findings for each study is provided in Table 1.

Two studies during the 1970s examined characteristics associated with dropout and identified grade retention as an early predictor. Stroup and Robins (1972) identified grade retention as the most powerful predictor of future dropout followed by excessive absences, and then frequent school changes. In the second study, Lloyd (1978) examined characteristics of third-grade students who later became high school dropouts and concluded that the dropouts were more likely to have been retained in grades one through three than high school graduates. Overall, Lloyd (1978) concluded that retention in grades one through three was a "strong indicator of later drop out" (p. 1199).

Barro and Kolstad (1987) provided a report on who drops out of high school that discusses many important contemporaneous and early predictors. The results indicate that early grade retention increased the risk of dropping out by 30% to 50%. In the examination of indicators of progression through school, the authors suggest, "... that grade retention has a more nearly independent status than performance as a determinant of failure to complete school" (p. 47).

Results of a study by Cairns, Cairns, and Neckerman (1989) demonstrated a clear relationship between high school dropout and early grade failure. High school dropout was reliably predicted in the seventh-grade using a combination of factors including retention, aggressiveness, low school achievement, socioeconomic status (SES), affiliation with peers who dropped out, and early parenthood. Overall, retention was among the strongest predictors of high school dropout.

Fernandez, Paulsen, and Hirano-Nakanishi (1989) compared male and female high school dropouts among several Latino groups, in addition to non-Hispanic White and Black youth. The Latino students included those identified as Hispanic, Mexican American, Cuban, Puerto Rican, and other Latin American. The Latinos as a group were more likely to be retained than non-Hispanic Whites and Blacks and had the highest dropout rate. Overall, it was found that retention emerged as a powerful predictor across all groups. Moreover, results of multivariate analyses demonstrated that subjects who were retained were more likely to drop out, independent of all other significant variables, which included math achievement, grades, and nuclear family responsibilities. Because the respondent's grades and test performance were statistically controlled, the authors suggest ". . . this pattern is strong evidence that students who have been grade delayed tend to drop out because of the age disjuncture between themselves and their peers and the consequent lack of fit between the respondent's peer group and classmates" (Fernandez et al., 1989; p. 37). Fernandez and colleagues (1989) conclude, "Regardless of race and ethnicity, scholastic performance and grade delay affect students' decisions to remain in school or drop out" (p. 47).

Grissom and Shepard (1989) reevaluated three large data sets and consistently found that students who were retained, regardless of socioeconomic level, were placed at risk for dropout. Analyses that controlled for student background and gender revealed that low academic achievement alone could not account for dropping out. Utilizing causal modeling techniques, it was found that retention was the most significant predictor for high school dropout for these students. It was

Author(s) and Year	Design and Analyses	Participants	Definition of Retention (R) and Dropout (D)	Measures	Findings
Stroup and Robins (1972)	Retrospective, correlational, stepwise multiple regression	N = 223; male, Black, IQ = 85+, public schools; St. Louis, MO	R = repeating the same grade 2 or more quarters D = no. of years of high school completed by age 21	All pre-high school measures, including grade school quarters repeated, excessive grade school absence, school changes, juvenile police record, high status childhood home, sexual experience and drinking prior to age 15, family life style, IQ, father absences, mother's education, number of siblings	Retention was the greatest predictor of dropout, followed by excessive absences and frequent school changes
Lloyd (1978)	Retrospective, correlational, stepwise regression	<i>N</i> = 196 retained boys, 592 graduated boys, 143 retained girls, 631 graduated girls	R = elementary school records indicating retention, also includes information on overage for grade D = high school records indicating graduation or lack thereof	Age, education of both parents, father's occupation, number of siblings, marital status of parents, grades, GPA, days absent in 3rd grade, CAT achievement test scores, IQ	Retention was both associated with and predictive of dropout; retrospectively, 70% high school dropout could have been identified in 3rd grade
Barro & Kolstad (1987)	Longitudinal, multi variate event history method	High School and Beyond data set; <i>N</i> for girls: 7669 White; 1609 Black; 1922 Hispanic, <i>N</i> for boys: 7313 White; 1339 Black; 2093 Hispanic; national, US	R = school report of students "held back" D = high school sophomore at Time 1, but not enrolled in high school or a high school graduate or equivalent at follow-up	Personal and family background characteristics, school experiences and accomplishments, student behaviors and choices	Overall, dropout was 2 times higher for retained students (both boys and girls), students who were overage for grade were 2–3 times more likely to drop out

Table 1Studies included in the current review.

Jimerson, Anderson, & Whipple

Cairns, Cairns, & Neckerman	Longitudinal, chi-sonare analyses	N = 472; 246 girls and 226 hove (30% Black	R = retained in grade,	Aggressive nominations,	One half of retained White females dronned
(1989)	stepwise logistic	51% girls), 8% highly	D = dropped out of	views on social	out, one third of the
	multiple regression,	aggressive;	school prior to comple-	networks/relations, phys-	retained White males
	cluster analyses	southern, US	tion of 11th grade of own	ical maturation	dropped out, whereas
			CONOT		only 8% of the retained Black females and 12%
					of the retained Black
					males dropped out; age/
					grade failure were predic- tive of dronout for both
					boys and girls
Fernandez, Paulsen,	Longitudinal,	High School and Beyond	R = grade delay (mea-	SES, ethnicity, father	Across all groups,
& Hirano-Nikanishi	descriptives,	data set;	sured by age)	absence, number of sib-	retained students were
(1989)	multivariate	N for males/females	D = high school sopho-	lings, test scores, grade	more likely to drop out
	analyses	(respectively) by ethnic-	more at Time 1, but not	delay (measured by age),	
		ity: 2280/2210 Hispanics;	enrolled in high school or	marital status, parental	
		1288/1270 Mexican	a high school graduate or	status of the student,	
		Americans; 184/189	equivalent at follow-up	language proficiency,	
		Cubans; 258/240 Puerto		generation of residency	
		Ricans; 550/511 other			
		Latin Americans; 1825/			
		2089 Blacks; and 9608/			
		9687 Whites;			
		national, US			
Grissom & Shepard	Path analysis	Study $1 = N = 29,399$,	R = retention and over-	Age, sex, ethnicity, SES,	Controlled for back-
(1989)		56% White, 25% His-	age for grade	school records	ground, sex, and achieve-
		panic, and 18% Black;	D = verified by school		ment, found a significant
		Austin, TX	records		effect for retention across
		Study $2 = N = 63,872$,			all 3 studies for dropout,
		80% minority subjects;			similar for males and
		Chicago, IL			females regardless of
		Study $3 = N = 38,364$,			ethnicity and SES
		21% minority subjects;			
		northeastern, US			
					(continued)

Grade Retention and Dropping Out

Author(s) and Year	Design and Analyses	Participants	Definition of Retention (R) and Dropout (D)	Measures	Findings
Tuck (1989)	Retrospective, descriptives, multi- variate analyses	 N = 219 dropouts, 98% Black and 59% male; N = 85 principals and school counselors; Washington, DC 	R = retained in grade D = not in school or re-enrolled	Retention, grades, GPA, tru- ancy, reenrollment status	78% of dropouts were retained in grade, 52% were retained 2 or more times, 60% had failing grades and GPAs
Morris, Ehren, & Lenz (1991)	Retrospective, pre- diction models using leave-one-out classi- fication with cross- validation	 N = 503 dropouts; N = 282 persistors (comparison group, a stratified random sample); Florida 	R = repeated one or more grades D = left school (either voluntarily or permanently removed) and have not returned or reenrolled	School records, academic records, medical/heath, envi- ronmental information	Repeating one or more grades prior to 9th grade was predictive of later high school dropout
National Center for Education Statistics (1992)	Longitudinal, univar- iate and multivariate odds ratios analyses	National Educational Longi- tudinal Study of 1988 (NELS:88) data set; $N =$ 16,079, all 8th grade stu- dents at risk for school failure; national, US	R = repeated a grade D = dropped out of school by the time of follow-up	Basic demographic informa- tion, family and personal back- ground variables, parental involvement, academic history, student behaviors, teacher perceptions, school character- istics	Students retained in kindergarten-4th grade were almost 5 times as likely to drop out, with students repeating later grades (5th-8th) almost 11 times as likely to drop out than students who had never repeated a grade
& Furstenberg & Furstenberg (1993)	Longitudinal, logistic regression	N =254; first-born children of Black teenage mothers; Baltimore, MD	R = repetition of grade or grade failure D = dropouts did not receive a high school diploma or high school equivalency degree at 20-year follow-up	 2 outcomes: (1) completing high school and (2) postsecondary education. Other variables: maternal commitment to education, maternal and familial charac- teristics, child's cognitive ability, child's preschool atten- dance, adolescent behavior 	Grade retention was associ- ated with dropping out of high school. Repeating a grade during elementary school reduces likelihood of pursuing post-secondary education by approximately 85%

446

Table 1 Continued

Jimerson, Anderson, & Whipple

oderick (1994)	Event history analysis	N = 707; urban 7th grade class of 1980–1981; Fall River, MA	R = retention in grades kindergarten-8th grade D = students were coded as dropouts, transfers, or graduates	School transcripts, background variables, no. of siblings, father's occupation, immigra- tion into school system before or after 6th grade, no. of school changes, qualitative measure of 4th grade school quality, special education placement in grades 4–6; school performance variables included mean academic grades and attendance	27% dropout rate for non- retained students; 69% dropout rate for students retained once; 94% of stu- dents retained 2 times or more dropped out; no sig- nificant differences between retention K–3 and 4–6
imberger (1995)	Logistic regression, hierarchical linear modeling	National Educational Longi- tudinal Survey (NELS:88) data set; N = 17,424 White, Black, and Hispanic students attending; national, US	R = repeat grade, held back in earlier grade D = middle school dropouts between grades 8–10	Student, parent, teacher, and principal questionnaires; school and familial factors included SES, minority status, single parent, step family, English language spoken at home, parental academic sup- port, parent supervision, parental expectations, absences, school mobility	Grade retention was single most powerful predictor of dropout; retained students were 11 times more likely to drop out than non- retained students
exander, Entwisle, Horsey 997)	Longitudinal; logistic regression analysis	Beginning school study; <i>N</i> = 790; 1 st grade (Fall 1982 cohort), 55% Black and 45% White; urban and suburban public schools; Baltimore, MD	R = retention in grade taken from school records and retrospective student reports D = dropouts did not receive high school diploma or GED by 1–2 years beyond high school	School records, interviews, teacher report, parent inter- views, self-reports; back- ground variables included SES, race, number of siblings, single parent household, famil- ial stressors, parental attitudes and values, child's behavioral adjustment and attitude, per- sonality traits, absenteeism, grades, test scores, special education services	Grade retention was signifi- cantly associated with drop- out status
					(continued)

Author(s) and Year	Design and Analyses	Participants	Definition of Retention (R) and Dropout (D)	Measures	Findings
Janosz, LeBlanc, Boulerice, & Tremblay (1997)	Logistic regression analyses	N = 791 (1974 longitudi- nal study on delinquency) and N = 791 (1985 longitudi- nal study on psychosocial adjustment), White, French-speaking 14-year- olds; Montreal, Canada	R = no. of years behind in schooling D = dropouts had not completed minimal requirements for a sec- ondary school diploma by age 22	Social and Personal Inventory (SPI) and edu- cation records, SES, parental level of educa- tion, parental supervision and punishment, family rules, peer relationships, problem behavior, delin- quency, leisure activities, school grades, commit- ment to schooling, school involvement, and extra- curricular activities, com- mitment to schooling	Retention was found to be the most powerful of all variables; grade reten- tion, school achievement, and school commitment predicted nearly all drop- outs
Rumberger & Larson (1998)	Multinomial logistic regression	National Educational Longitudinal Survey (NELS:88); N=11,671; 8th grade students attend- ing public, private, and Catholic schools; national, US	R = held back prior the 8th grade D = measured 2 years after grade 12, specified between students receiv- ing high school diploma and students receiving GED	Incidence of school mobility, ethnicity, SES, single-parent family, stepfamily, behavior, absenteeism, low expec- tations, school activities, student perception of fair school discipline, grades, tests scores	Retained students were more than 4 times as likely as nonretained students not to complete high school or receive a GED

Table 1 Continued

Jimerson, Anderson, & Whipple

Grade retention through 8th grade diminished positive effects of enroll- ment in CPC	Retained subjects were 20–25% more likely to have dropped out of high school by age 19 than the comparison group of low-achieving, promoted students
Iowa Test of Basic Skills, parent involvement, spe- cial education placement, school mobility	Attendance, SES, student employment measures, postsecondary enroll- ment, cognitive ability scores, achievement test scores, teacher ratings and interviews of socio- emotional and behavioral adjustment, mother report
R = retained during grades kindergarten-8th grade D = during the 12th grade year, students were considered dropouts if they were not enrolled in high school diploma or GED-granting educa- tional institutions	R = grade repeated kin- dergarten through 3rd D = failing to attain high school diploma or GED by age 19 years
Chicago Longitudinal Study; N=1,159; 95% Black, 5% Hispanic cohort of kindergartners in 1986 attending 26 school sites in low SES neighborhoods; 883 par- ticipated in Chicago Child-Parent Centers (CPC) and 276 formed comparison group of non-CPC students in all-day kindergarten class for students at risk for school failure due to poverty; Chicago, IL	N = 29 retained subjects (35% minority); $N = 50$ low-achieving compari- son students (31% minor- ity); $N = 100$ randomly selected controls (16% minority); Minnesota
Quasi-experimental; probit and simple regres- sion estimates	Longitudinal, one-way analysis of vari- ance, chi-square analyses
Temple, Reynolds, & Meidel (1998)	Jimerson (1999)

also found that retention between the 7th and 12th grades significantly increased the risk of later high school dropout. The authors conclude that ". . . it is always the case that a substantially larger proportion of the dropouts have repeated a grade" (Grissom & Shepard, 1989; p. 60) than graduates. Thus, it seems that school retention policies may augment rather than remedy the dropout problem.

Tuck (1989) found that retained students were two times more likely than nonretained students to drop out of high school. It was also found that 78% of dropouts had been retained in elementary school, with dropouts reporting feelings of alienation within the classroom climate and school environments. Tuck (1989) concludes with the view that dropout may well be the result of a prolonged experience of school failure and alienation, and that intervention must begin prior to the high school years.

Morris, Ehren, and Lenz (1991) conducted an archival study with the intent of building a model that predicts high school dropout. Two groups were compared: school dropouts and persistors (students who remained enrolled in school). Utilizing leave-one-out classification techniques, comparisons were performed between dropouts and persistors in grades four through eight among a variety of predictor variables. The study results indicated that retention emerged as a significant predictor for dropout. Other important variables included in the prediction equations were D and F grades, absences, family structure, number of schools attended, and standardized test scores in language, reading, and social studies. Grade retention was a significant predictor in three of the five prediction equations.

The National Center for Educational Statistics (NCES) (1992) evaluated at-risk students within the National Educational Longitudinal Study of 1988 (NELS:88) data set. This research utilized an odds-ratio and adjusted odds-ratio design. It was found that students who had repeated an early grade (kindergarten through fourth grade) were nearly five times more likely to drop out of school between the 8th and 10th grades in comparison to those students who had not been retained. In addition, students who had repeated a later grade (fifth through eighth grade), were nearly 11 times more likely to drop out between the 8th and 10th grades in comparison to those students who had not repeated these grades. Moreover, after controlling for demographic characteristics and considering a host of early risk factors (e.g., family structure, parent involvement, age, mobility, prior achievement, absences, ethnicity), early grade retention continued to emerge as a powerful risk factor of later dropout.

Brooks-Gunn, Guo, and Furstenberg (1993) conducted a 20-year longitudinal study and suggested that retention was perhaps the ". . . strongest harbinger of school disengagement later on" (p. 285). Furthermore, elementary school grade retention decreased post-secondary school attendance by 85%. The results of this study highlighted the potential deleterious outcomes associated with grade retention, and the authors concluded that ". . . grade failure is a potent predictor of educational attainment" (Brooks et al., 1993; p. 285).

Utilizing an event history analysis, Roderick (1994) demonstrated that subjects retained in grades kindergarten through eighth grade in an urban school system were twice as likely to drop out compared with nonretained peers. Moreover, this study controlled for differences in grades, background, and attendance and found that 69% of students retained once between kindergarten and eighth grade dropped out compared with a 27% dropout rate among students who had never been retained. The effect of grade retention did not dramatically differ between students retained in kindergarten through third grade and students retained in fourth through sixth grade. Interestingly, there was a 58% dropout rate for the youths who were overage for grade (but not retained) due to starting school late or entering the school system as immigrants. Roderick (1994) discussed being overage for grade during adolescence as a major explanatory factor for the higher dropout probability among retained students.

Rumberger (1995) utilized logistic regression analysis and a form of hierarchical linear modeling (HLM) to examine dropping out of school between the 8th and 10th grades from both individual and institutional perspectives. As retained subjects were 11 times more likely to drop out than their peers, Rumberger (1995) identified grade retention as "the single most powerful predictor" (p. 616) of middle school dropout. Moreover, grade retention stood out in comparison to important school and familial factors (e.g., race, SES, single-parent family, step family, English language at home, parental academic support, parental supervision, parental expectations, absences, and school mobility). Rumberger (1995) emphasizes that it is critical for those engaged in school reform to examine the effect of retention policies on subsequent school withdrawal.

Based on data from a 14-year study, Alexander, Entwisle, and Horsey (1997) revealed that retention was significantly associated with high school dropout status. This developmental approach to analysis also considered other early predictors of dropout including familial stressors, parental attitudes and values, summer child care arrangements, the child's behavioral adjustment and attitude, personality traits, grades, test scores, and first-grade track placements. Alexander and colleagues (1997) suggest that retention was a significant factor contributing to a long-term process of school disengagement, which culminated in eventual dropout.

Janosz, LeBlanc, Boulerice, and Tremblay (1997) included school, family, behavioral, social, and personality variables as predictors of dropping out over time. Together, school achievement, school commitment, and grade retention predicted almost all school dropouts. The authors reported that "grade retention was the most powerful predictor of all variables" (p. 756).

Rumberger and Larson (1998) examined individual, family, and school characteristics associated with student mobility and high school dropout. The results of these analyses indicated that students retained prior to the eighth grade were more than four times as likely as nonretained students to not complete high school or to receive a graduation equivalent diploma (i.e., GED) 2 years after they normally would have received a regular high school diploma. While early grade retention was not the focus of this particular study, it emerged as a powerful predictor of failure to complete high school.

Temple, Reynolds, and Miedel (1998) utilized probit and logistic regression estimates to investigate the factors associated with high school dropout. This longitudinal study included a unique methodology comparing students who participated in an early child-parent center intervention, relative to participants in a regular kindergarten class for at-risk children. It was discovered that grade retention diminished the positive effects of enrollment in the early child-parent intervention program. The probability of dropout was significantly decreased for child-parent intervention participants who were not retained.

Jimerson (1999) incorporated one-way analyses of variance (ANOVA) and chi-square analyses to examine outcomes associated with grade retention. The results of this 21-year prospective, longitudinal study demonstrated that retained subjects were 20% to 25% more likely to have dropped out of high school by age 19 than the comparison group of similarly low-achieving but socially promoted students. In addition, the retained subjects had poorer outcomes on educational and employment variables in late adolescence than the socially promoted subjects. Due to the retained students being "worse off" than the low-achieving but promoted subjects on all educational outcomes in high school and beyond analyzed in this study, Jimerson (1999) concluded that retention is not an effective remediation strategy and suggests that alternative remedial strategies that are well researched and effective be implemented instead.

It must be noted that each of the studies presented herein have limitations. Several do not give ethnic or gender breakdowns of the participants. A variety of statistical analyses are used, some of which are associative, while others are more predictive. The studies that utilize longitudinal designs vary in the length of time that students are followed. Retrospective designs contain flaws as well, including limited access to a range of socioemotional and family data. Each of these caveats limits the generalization of the findings of the studies. However, given the various limitations, what is most striking is the confluence of the separate findings of each study. Although the studies span differing decades, locales, ethnicities, researchers, and designs, the results consistently indicate that grade retention is highly associated with later high school dropout.

DISCUSSION

The results of this review of research addressing the association between grade retention and dropout status clearly demonstrate that early grade retention is one of the most powerful predictors of later school withdrawal. As discussed in other research, the short-term benefits of grade retention may dissipate and culminate in later school withdrawal (Jimerson, 1999). The likelihood of dropout is considerably greater for students who have been retained more than once (Mann, 1987; Roderick, 1994; Tuck, 1989). Mann (1987) reports that students who are retained in one grade are 40% to 50% more likely to drop out than promoted students and students who are retained in two grades are 90% more likely to drop out. Upon reflecting on the short-term and long-term outcomes associated with grade retention, Dawson (1998b) concluded ". . . it could be said, that we've won the battle but lost the war" (p. 21). As a unique contribution to the current literature, this review should be used to guide future examinations of the connection between retention and later high school dropout. In addition, this review may be used immediately to inform the general public, educational professionals, and policymakers about the association between grade retention and dropping out.

Amidst an era in which education reform is highly influenced by politicians rather than educational researchers, the implications of the cumulative research, reviewed herein, suggests caution in utilizing retention as an academic intervention for low-achieving students. However, it appears that the general public outside of academic circles is not aware of the potential long-term repercussions of grade retention. The results of the 22nd Annual Gallup Poll of the Public's Attitudes Toward the Public Schools (Elam, 1990) indicated that the average person does not know of the connection between retention and high school dropout. When asked whether children who fail achievement tests and have to repeat a grade or children who fail achievement tests and are promoted anyway are more likely to drop out of high school, 54% of respondents viewed the socially promoted students as more likely to drop out whereas 32% viewed the retained students as more likely to drop out (Elam, 1990). Clearly, the results of this review contradict the popular public perception of the association between grade retention and high school dropout.

Perspectives of Educational Professionals

Research suggests that although teachers play a key role in the retention decision-making process, they are often unaware of the conclusions of retention research (Haberman & Dill, 1993; Smith & Shepard, 1987, 1988; Tanner & Combs, 1993; Tomchin & Impara, 1992). Teachers' perspectives regarding the efficacy of grade retention are generally limited, as they are usually only aware of student outcomes in the immediate years following retention decisions (Tanner & Combs, 1993). Teachers often have limited knowledge of student progress beyond the elementary grades and thus do not know of the long-term student trajectories after retention. Research suggests that many teachers view retention as successfully improving academic performance and that it also results in more homogeneous grouping of students within grade (Haberman & Dill, 1993). However, it has also been reported that teachers do not believe that retention is a motivating incentive for student achievement (Tanner & Combs, 1993). Furthermore, teachers appear divided about the effect of retention on students' self-concept and whether retention for the purpose of an

extra year for growth and maturity is justified (Tanner & Combs, 1993; Tomchin & Impara, 1992). In a survey of views on grade repetition, teachers and principals described common characteristics of retained children as undermotivated and developmentally immature, while at the same time agreeing that emotional immaturity is an appropriate rationale for retention (Byrnes & Yamamoto, 1985; 1986).

Tanner and Combs (1993) emphasize that "research findings must be effectively, efficiently and clearly communicated to teachers, educational policy makers, and prospective educators" (p. 75) in order to inform decision making. Similarly, Tomchin and Impara (1992) believe that it is essential for schools to implement staff development in which teachers (a) examine their own beliefs about retention, (b) are presented with research evidence about the short-term and longterm effects of retention, and (c) are trained in schoolwide classroom intervention strategies.

In addition to teachers, other educational professionals involved in the decision-making process, such as administrators, counselors, and school psychologists, also should be apprised of the research on grade retention emerging during the past decade. In particular, research during the past decade suggests that (a) the popular belief that it is better to retain a child in kindergarten or first grade rather than upper grades is unfounded (Smith & Shepard, 1988; Tanner & Combs, 1993), and (b) elementary grade retention may result in temporary achievement gains, but often these effects taper off and the students eventually fall behind or show no gains relative to their socially promoted peers (Alexander, Entwisle, & Dauber, 1994; Jimerson, 1999, 2001b; Jimerson, Carlson, Rotert, Egeland, & Sroufe, 1997; Mantzicopoulos & Morrison, 1992; McCoy & Reynolds, 1999). Nason (1991) summed up the literature on kindergarten and first-grade retention: "Retention in kindergarten or first grade does not produce long-lasting academic gains, but rather increases the likelihood that the student will become a high school dropout" (p. 303).

Walters and Borgers (1995) emphasized that educational professionals "must be cognizant of these trends if they are to be effective advocates in helping all children to develop to the best of their potential" (p. 308). Similarly, others have recommended that school psychologists take an active role in the districtwide promotion policy-making process as well as identifying and evaluating alternatives to retention (Rose, Medway, Cantrell, & Marus, 1983). Since school psychologists serve as consultants to teachers and parents, it is important that they disseminate the most current research findings on retention and outline the potential repercussions of a retention decision in addition to identifying possible alternatives.

Short-Term and Long-Term Considerations

The transactional model of development emphasizes the importance of considering developmental trajectories across time, thus including both short-term and long-term outcomes. As previously discussed, research suggests that temporary academic and socioemotional improvements appear to be deceptive in anticipating long-term outcomes associated with grade retention.

Considering the transactional model of development, grade retention alone should not be considered deterministic of subsequent school withdrawal. But rather, this educational intervention (which is implemented in an effort to remediate achievement and/or behavioral problems largely influenced by one's earlier developmental history) influences the student's subsequent self-esteem, socioemotional adjustment, peer relations, school engagement, and other factors which are also highly associated with school withdrawal. It is important to consider a child's developmental trajectory across time, recognizing that one's early developmental history, including educational experiences, will influence subsequent development. Thus, educational professionals are strongly encouraged to consider both the short-term and long-term outcomes associated with early intervention strategies.

Accountability

An emphasis on accountability and standards has led to political pressures upon schools nationwide in evaluating their effectiveness and overall success by test scores. Of grave concern is that this unprecedented pressure has led to increased retention rates in order for schools to demonstrate a commitment to standards, rather than consideration of the long-term beneficial outcomes for students, particularly given that retention is strongly associated with high school dropout. The high stakes currently placed upon standardized assessment outcomes turns retention into an incentive for educators due to the average raise of 20 points for the year following the retention (Slavin, 1991). Schools are currently recognized for increased test scores while the increasing number of retentions is often ignored (McGill-Frazen & Allington, 1993). It has been suggested that remedies to such unethical educational practices may include that previously retained student scores be adjusted with a standard adjustment (McGill-Frazen & Allington, 1993). It is the responsibility of educational professionals to disclose population characteristics that may influence test scores and also to provide intervention services with demonstrated effectiveness, which considers both short-term and long-term outcomes.

Limitations and Directions for Future Research

Although none of the studies located for this investigation reported that grade retention is *not* associated with later dropout status, there may be studies that did not emerge given the systematic selection of studies included in this review. Retention should not be misconstrued as the single event leading to dropout. Rather, it appears that certain children have or are exposed to risk factors (e.g., immaturity, low SES, low parental level of education) which place them at greater risk for retention as well as high school dropout. Once the retention occurs, other events (e.g., disengagement, absenteeism, low self-esteem) associated with dropout are more likely to occur, reinforcing developmental pathways leading to high school dropout. After finding that grade retention was highly predictive of dropout, Brooks-Gunn and colleagues (1993) performed a series of regressions without grade retention. These findings support the idea that individual risk factors contribute to the shaping of developmental trajectories.

Again, this points to the importance of continuing and extending the current line of research, evaluating the linkage between grade retention and later high school dropout. This review seeks to begin a dialogue that continues to pursue the thread that appears to be incidentally woven within the current studies. That is, longitudinal studies in the future should be designed with multiple measures, including retention, which can both examine the association and the prediction of high school dropout. Attention should be given to identifying risk and protective factors that can inform more comprehensive interventions that address both socioemotional and educational needs. Further research to better understand developmental and achievement trajectories can better inform both practice and research (Jimerson et al., 2000; Jimerson, Egeland, & Teo, 1999). Additional research is necessary to delineate effective interventions that reinforce and strengthen pathways that lead to more positive academic outcomes.

It is suggested that the focus shift to evaluating the short-term and long-term outcomes associated with alternative intervention strategies (Jimerson, 2001a; 2001b). In addition, the results of past and future research must be disseminated to educational professionals as a means of influencing intervention strategies to facilitate the success of students at risk of educational failure. Perhaps even more importantly, this information should be circulated into the mainstream of society in order to educate and influence the general public.

Furthermore, the child's perspective on retention is largely absent in the research literature. Retained elementary students interviewed by Byrnes and Yamamoto (1986) reported a perception of retention as a punishment. Not surprisingly, children described their teachers as using retention as a threat to students. Ironically, several of these children were identified as learning disabled during the repeated year. As it is the children themselves who are most affected by retention, it is crucial that further research ensures the inclusion of the voices of the students who are impacted by retention policies.

In Sum

Considering the results of this review of research examining the association between grade retention and high school dropout and other reviews of research addressing the efficacy of grade retention (Holmes, 1989; Jimerson, 2001a, 2001b; Smith & Shepard, 1987, 1988), we must move beyond the use of grade retention as an intervention strategy and attempt to implement those strategies research has demonstrated to be effective (Jimerson, 2001a). Educational professionals, researchers, parents, and policymakers would be remiss to overlook the implications of research that demonstrate the association between grade retention and school dropout. Furthermore, a new imperative has emerged, where the onus is on programs training future educational professionals to disseminate the results of the recent research presented in this review. It is crucial that we transcend limited solutions and begin to consider student developmental and achievement trajectories in order to reinforce and strengthen pathways that promote social and cognitive competence and lead to academic success.

References

- Alexander, K., Entwisle, D., & Dauber, S. (1994). On the success of failure: A reassessment of the effects of retention in the primary grades. New York, NY: Cambridge University Press.
- Alexander, K.L., Entwisle, D.R., & Horsey, C.S. (1997). From first grade forward: Early foundations of high school dropout. Sociology of Education, 20, 87–107.
- Barro, S., & Kolstad, A. (1987). Who drops out of high school? Findings from high school and beyond (Report 87–397). Washington, DC: U.S. Department of Education/ National Center for Education Statistics.
- Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. Developmental Psychology, 22, 723–742.
- Brooks-Gunn, J., Guo, G., & Furstenburg, F.F. (1993). Who drops out of and who continues beyond high school? A 20-year follow-up of Black urban youth. Journal of Research on Adolescence, 3, 271–294.
- Byrnes, D., & Yamamoto, K.Y. (1985). Academic grade retention of elementary pupils: An inside look. Education, 106, 208–214.
- Byrnes, D., & Yamamoto, K.Y. (1986). View on grade repetition. Journal of Research and Development in Education, 20, 14–20.
- Cairns, R., Cairns, B., & Neckerman, H. (1989). Early school dropout: Configurations and determinants. Child Development, 60, 1437–1452.
- Collins, W.A., & Sroufe, L.A. (1999). Capacity for intimate relationships: A developmental construction. In W. Furman, B.B. Brown, & C. Feiring (Eds.), Contemporary perspectives in adolescent romantic relationships. New York, NY: Cambridge University Press.
- Dawson, P. (1998a). A primer on student grade retention: What the research says. NASP Communique, 26, 28-30.
- Dawson, P. (1998b). Book review of On the Success of Failure: A Reassessment of the Effects of Retention in the Primary Grades. NASP Communique, 26, 20–21.
- Elam, S.M. (1990). The 22nd annual Gallup poll of the public's attitudes toward the public schools. Phi Delta Kappan, 78, 41–54.
- Fernandez, R.M., Paulsen, R., & Hirano-Nakanishi, M. (1989). Dropping out among Hispanic youth. Social Science Research, 18, 21–52.
- Grissom, J., & Shepard, L. (1989). Repeating and dropping out of school. In L.A. Shepard & M.L. Smith (Eds.), Flunking grades: Research and policies on retention (pp. 16–33). London, UK: The Falmer Press.
- Haberman, M., & Dill, V. (1993). The knowledge base on retention vs. teacher ideology: Implications for teacher preparation. Journal of Teacher Education, 44, 352–360.

- Holmes, C.T. (1989). Grade-level retention effects: A meta-analysis of research studies. In L.A. Shepard & M.L. Smith (Eds.), Flunking grades: Research and policies on retention (pp. 16–33). London, UK: The Falmer Press.
- Janosz, M., LeBlanc, M., Boulerice, B., & Tremblay, R.E. (1997). Disentangling the weight of school dropout predictors: A test on two longitudinal samples. Journal of Youth and Adolescence, 26, 733–762.
- Jimerson, S.R. (1999). On the failure of failure: Examining the association between early grade retention and education and employment outcomes during late adolescence. Journal of School Psychology, 37, 243–272.
- Jimerson, S.R. (2001a). Meta-analysis of grade retention research: Implications for practice in the 21st century. School Psychology Review, 30, 420–437.
- Jimerson, S.R. (2001b). A synthesis of grade retention research: Looking backward and moving forward. California School Psychologist, 6, 47–59.
- Jimerson, S.R., Carlson, E., Rotert, M., Egeland, B., & Sroufe, L.A. (1997). A prospective, longitudinal study of the correlates and consequences of early grade retention. Journal of School Psychology, 35, 3–25.
- Jimerson, S.R., Egeland, B., Sroufe, L.A., & Carlson, B. (2000). A prospective, longitudinal study of high school dropouts: Examining multiple predictors across development. Journal of School Psychology, 38, 525–549.
- Jimerson, S.R., Egeland, B., & Teo, A. (1999). Achievement across time: A longitudinal study of deflections, considering early school and family factors. Journal of Educational Psychology, 91, 116–126.
- Lloyd, D. (1978). Prediction of school failure from third-grade data. Educational and Psychological Measurement, 38, 1193–1200.
- Mann, D. (1987). Can we help dropouts? Thinking about the undoable. In G. Natriello (Ed.), School dropouts: Patterns and policies (pp. 3–19). New York, NY: Teachers College Press.
- Mantzicopoulos, P., & Morrison, D. (1992). Kindergarten retention: Academic and behavioral outcomes through the end of the second grade. American Educational Research Journal, 29, 182–198.
- McCoy, A.R., & Reynolds, A.J. (1999). Grade retention and school performance: An extended investigation. Journal of School Psychology, 37, 273–298.
- McGill-Frazen, A., & Allington, R.L. (1993). Flunk 'em or get them classified: The contamination of primary grade accountability data. Educational Researcher, 22, 19–22.
- Morris, J., Ehren, B., & Lenz, K. (1991). Building a model to predict which fourth through eighth graders will drop out in high school. Journal of Experimental Education, 59, 286–293.
- Nason, B. (1991). Retaining children: Is it the right decision? Childhood Education, 67, 300-304.
- National Center for Education Statistics (1992). Characteristics of at-risk students in NELS:88. Statistical analysis report for the U.S. Department of Education, Office of Educational Research and Improvement (NCES 92–042; ISBN 0–16–038011–1). Washington, DC: U.S. Government Printing Office.
- Roderick, M. (1994). Grade retention and school dropout: Investigating the association. American Educational Research Journal, 31, 729–759.
- Rose, J., Medway, F., Cantrell, V., & Marus, S. (1983). A fresh look at the retention-promotion controversy. Journal of School Psychology, 21, 201–211.
- Rumberger, R. (1995). Dropping out of middle school: A multilevel analysis of students and schools. American Educational Research Journal, 32, 583–625.
- Rumberger, R., & Larson, K. (1998). Student mobility and the increased risk of high school dropout. American Journal of Education, 107, 1–35.
- Sameroff, A. (1992). Systems, development, and early intervention. Monographs of the Society for Research in Child Development, 57, 154–163.
- Sameroff, A., & Chandler, M. (1975). Reproductive risk and the continuum of care-taking casualty. In F. Horowitz, E. Hetherington, P. Scarr-Salapatek, & A. Siegal (Eds.), Review of child development research, Vol. 4. Chicago, IL: University of Chicago Press.
- Shepard, L.S., & Smith, M.L. (1990). Synthesis of research on grade retention. Educational Leadership, 47, 84-88.
- Slavin, R.E. (1991). A vision for the next quarter century. Phi Delta Kappan, 72, 586-592.
- Smith, M.L., & Shepard, L.S. (1987). What doesn't work: Explaining policies of retention in the early grades. Phi Delta Kappan, 69, 129–134.
- Smith, M.L., & Shepard, L.A. (1988). Kindergarten readiness and retention: A qualitative study of teacher's beliefs and practices. American Educational Research Journal, 25, 307–333.
- Stroup, A., & Robins, L. (1972). Elementary school predictors of high school dropout among black males. Sociology of Education, 45, 212–222.
- Tanner, C.K., & Combs, F.E. (1993). Student retention policy: The gap between research and practice. Journal of Research in Childhood Education, 8, 69–77.

- Temple, J., Reynolds, A., & Miedel, W. (1998). Can early intervention prevent high school dropout? Evidence from the Chicago child-parent centers. Paper presented at the Head Start Research Conference, Washington, DC. (ERIC number ED426167).
- Tomchin, E.M., & Impara, J.C. (1992). Unraveling teachers' beliefs about grade retention. American Educational Research Journal, 29, 199–223.
- Tuck, K. (1989). A study of students who left: D.C. public school dropouts. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA. (ERIC number ED306342).

Walters, D.M., & Borgers, S.B. (1995). Student retention: Is it effective? The School Counselor, 42, 300-310.