
The Relationship to Achievement on the California High School Exit Exam for Language Minority Students

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Abstract

This report examines first year results of the California High School Exit Exam (CAHSEE) required for students to earn a high school diploma. Results suggest this high stakes test failed to meet legislative objectives to increase achievement and close the achievement gap. Instead, language-minority students with passing scores achieved significantly below white students on CAHSEE and on a grade level standards-based assessment. Critical theory and the concepts of the hidden curriculum and cultural capital aided interpretation of results. CAHSEE results and legislative requirements reinforced educational inequities by assigning students to remedial instruction and special classes based on test scores found as inadequate measures of meaningful levels of achievement. CAHSEE regulations disadvantaged English Learners and supported the argument that there is a mismatch between high-stakes tests and second-language acquisition theory.

The increase in high-stakes testing has been a central feature in the current reform in public education to raise achievement levels, improve school accountability, and close the achievement gap between language-minority and language-majority students (Linn, 2000). However, there is concern that the increase in high-stakes tests may narrow the curriculum (Kohn, 1999) and be inappropriate for English Learners at low levels of English language proficiency (National Clearinghouse for Bilingual Education, 1997; August and Hakuta, 1997). In addition, high-stakes tests are innocuous educational practices that often result in such detrimental effects as the assignment of many language-minority students to school tracking, overrepresentation in vocational classes and special education programs, and increased dropout rates (Cuenca, 1991). Yet estimates are that by 2008, 80% of states with larger percentages of Hispanic and African American students compared to the nation, will have implemented high school exit exams (Amerein & Berliner, 2002).

Research on high-stakes tests has not provided convincing evidence that improved student learning has occurred. For example, McNeil and Valenzuela (2001) found compelling evidence the Texas Assessment of Academic Skills widened the achievement gap between poor and privileged children, and that teachers of non-Anglo children

devoted class time to practice test materials and emphasized instruction aimed at tested skills. More recently, Amerein and Berliner (2002) challenge the validity of high-stakes tests when no corresponding achievement gains were found on other tests in 18 states that instituted high-stakes tests. Examination of results on the Scholastic Achievement Test, American College Test, National Assessment of Educational Progress, and Advanced Placement tests indicated transfer of achievement levels did not increase in states with high-stakes tests.

Purpose of the Study

The purpose of this study is to examine the extent a high-stakes test contributed to existing inequalities among language-minority students. The relationship of the California High School Exit Exam (CAHSEE) achievement levels to results on separate tests were examined to shed light on the potential of CAHSEE to close the achievement gap between language-minority and language-majority students, to determine the extent CAHSEE test scores are meaningful measures of achievement, and to increase understanding of how policy issues governing high-stakes tests affect language-minority students.

CAHSEE test scores were examined to determine if differences in achievement occurred between ethnic, racial, and language-minority students. Little or no differences in test scores among students who passed sections of the test suggest improvements toward closing the achievement gap. The relationship between CAHSEE achievement levels and student performance on the California Standards Test (CST) is also examined to determine the extent CAHSEE test scores correspond to achievement levels on other state tests. Finally, CAHSEE and CST test scores were compared between students with different levels of English language proficiency and primary languages. Results from the California English Language Development Test were used as objective measure of English language proficiency. Differences in achievement between language groups would warrant close attention to the diverse educational experiences of English Learners.

This study contributes to an increased understanding of how one high-stakes test, the California High School Exit Exam, has not met state legislative objectives, and instead, resulted in the unnecessary assignment of students to harmful educational experiences. Results of this study support the argument that inferences about results of high-stakes tests are uncertain and challenge the validity of such tests (Amerein & Berliner, 2002). After two years of implementation, CAHSEE has not demonstrated to be an effective instrument to increase student achievement, improve educational reform, or close the achievement gap between language-minority and language-majority students. Instead, this high-stakes test has led to misguided educational practices that have masked a fundamental civil right, the opportunity to learn. Evidence is provided that CAHSEE narrowed the curriculum and reduced access to grade level curriculum and instruction for large numbers of language-minority students. The potential implications of CAHSEE upon high school graduation for different groups of students warranted this study.

CAHSEE was established by California Senate Bill 2X in 1999. The bill requires all high school students beginning with the class of 2004 to pass CAHSEE to earn a high

school diploma. The purpose of the exam is to improve student achievement by ensuring high school graduates can demonstrate competency in content standards for reading, writing, and mathematics. In the United States, 28 states require tests for graduation (Rivera & Stansfield, 2000). CAHSEE was given for the first time in the spring of 2001. The test was optional for ninth grade students, however, all tenth grade students were required to take the test in 2002. An estimated 81% or about 400,000 ninth grade students took the test in California.

Under Senate Bill 2X, English Learners may be deferred from having to pass the CAHSEE for up to 24 months and until they have received six months of instruction in reading, writing, and comprehension in English. After the minimum time period, English Learners must meet CAHSEE requirements regardless of English language proficiency level. However, research on second-language acquisition theory found it takes 4 to 7 years for English Learners to gain academic language skills in English (Cummins, 1989). In addition, the diverse language, cultural, immigration, and historical experiences among English Learners suggests CAHSEE test score will vary by language group.

Conceptual models to explain the educational experiences and academic achievement levels of language-minority students have been inadequate in focus and narrow in scope. Research based on deficit models or cultural explanations have ignored school-related factors outside the context of families and communities that contribute to harmful educational experiences for many language-minority children. On the other hand, critical theory provides a deeper understanding of how education promotes, reinforces, and reproduces social inequalities (Apple, 1990).

Educational critical theorists (Apple, 1990; Bourdieu & Passeron, 1977; Jackson, 1968) argue that social facts are perceived and organized in ways that hide particular interests. For example, reproductionists claim some school mechanisms reinforce and legitimize the unequal distribution of knowledge, educational outcomes, and learning opportunities. A critical analysis of the educational arrangements that result from high-stakes tests can illuminate how groups of students are provided limited learning opportunities that perpetuate inequalities. Results of this study suggest CAHSEE test scores did not increase achievement, but served to sort and select students into unequal learning opportunities.

Two concepts from educational critical theory will help explain results in this study, the hidden curriculum and cultural capital. Jackson (1968) described the hidden curriculum as the tacit school teaching of social and economic norms, values, and expectations. Through critical analysis of school practices the hidden curriculum of schools can be revealed (Giroux, 1983). Giroux (1983) argued against the mere description of the hidden curriculum in school settings, and favors a critical analysis of how the hidden curriculum operates as a vehicle of social control.

Bourdieu and Passeron (1977) referred to cultural capital as certain kinds of prior knowledge, abilities, and language skills considered to be unequally distributed throughout society and related to social class divisions. Schools use cultural capital as an effective filtering device to define the position of students of different social classes.

Method

Data Analysis Design

Extant test and student demographic data were examined from a large urban school district in central California. Test scores were collected from the first year administration of CAHSEE. Statistical analysis of quantitative data were applied to answer the research questions in this study:

1. What were the differences in achievement between ethnic, racial, and language-minority students on CAHSEE?
2. What is the relationship between students with different primary languages and levels of English language proficiency on CAHSEE achievement levels?
3. What is the relationship of CAHSEE achievement levels to student performance on a grade level standards-based assessment, and an English language proficiency test?

Participants

The school district in this study has approximately 80,000 students. The school district has a very ethnically diverse student population with the fourth largest population of English Learners in California (about 25,000 students). Approximately 5,100 (80%) ninth grade students in the school district completed the exam. The ninth grade students eligible to take CAHSEE were largely Hispanic (49%), white (20%), Asian (18%), and African American (12%). About 63% of the students were economically disadvantaged as indicated by the qualification for free or reduced lunch.

In this report, English language proficiency levels of English Language Learners (ELL) were defined by school district benchmark profiles. Comparison of English language proficiency levels with results from a state required English language proficiency test (California English Language Development Test), yielded close and corresponding levels of English language proficiency. Large percentages of students were identified at early levels of English Language Development (ELD) on both assessments. Most of the English Learners had higher levels of English language proficiency (*Intermediate* or *Advanced*, 81%). The primary languages of ELL students were determined by parent surveys conducted at enrollment. About 45% of the students indicated a primary language other than English (Spanish, 57%; Hmong, 28%; Khmer, 6%; Lao, 5%; other, 4%).

Measures

CAHSEE is based on content standards that coincide with grades 7 through 10 for English language arts and grades 6 through 9 for mathematics. The test includes multiple-choice items and a writing sample. The test was administered in a group setting and was un-timed. The two content areas of the test were administered on separate days. Two statewide field tests were conducted to determine the highest technical quality for test questions and scores.

The California Standards Test (CST) is a state required grade level test on content standards in English language arts (ELA) and mathematics. All students in grades 2 through 11 are required to take the test. The purpose of the CST is to increase access to

grade level instruction for all students and to represent one component of the state's school accountability system. Schools that fail to meet annual growth targets in academic achievement are subject to state sanctions. High schools are required to have 90% of all students complete the test.

The California English Language Development Test (CELDT) is a standards-based assessment on state English language development standards. The test is based on the Language Assessment Scales (De Avila & Duncan, 1983), an English language assessment. Standards in English language development are pathways to English language arts standards. English language development and English language arts standards are closely aligned at higher levels of English proficiency (*Early advanced and Advanced*). The CELDT includes sub-test scores for listening/speaking, reading, and writing. All English Learners are required to take the CELDT annually.

Procedures

Test results were collected for all students completing any portion of CAHSEE. Student records were matched with test results from the California Standards Test in English Language Arts, and if appropriate, the CELDT. Test data was coded to identify students with passing CAHSEE scores in either English Language Arts or Mathematics. Student demographic data was also collected to identify English Learners, level of English language proficiency, and student's primary language. English Learners were grouped into high or low levels of English proficiency skills based on district benchmarks.

Data Analysis Design

Quantitative data analysis was conducted to determine achievement differences on CAHSEE and the California Standards Test between ethnic, racial, and language-minority students. Significant differences in test scores between students with passing CAHSEE scores suggest a persistent achievement gap. To corroborate the disparity in achievement between students with passing scores, test results were compared with the grade level California Standards Test in English Language Arts. The relationship between English Language Proficiency and results on CAHSEE was also examined to determine language group differences. Scaled scores were derived from CAHSEE and CELDT results and raw scores were examined from the California Standards Test in English Language Arts. One-way ANOVA and post hoc statistical procedures were performed to determine significance differences in test scores between student populations.

Results

Results are divided into three sections: (1) Descriptive statistics on CAHSEE achievement differences between ethnic, racial, and language-minority students; (2) Comparison of test results between ethnic, racial, and language-minority students on a state required standards-based assessment (CST); and (3) Examination of the relationship between CAHSEE achievement levels and results on an English language proficiency test for English Learners (CELDT).

As indicated in Table 1, a larger percentage of white than Hispanic, African American, or Asian students passed both sections of CAHSEE. Of the largest language groups, more Hmong and Lao students passed the English language arts section and more Vietnamese, Lao, and Khmer students passed the mathematics section. Students with higher levels of English language proficiency (*Early advanced* and *Advanced*) were more likely to pass both sections of CAHSEE. All students were more likely to pass the English language arts than the mathematics section.

Table 1
Percent of Students Passing CAHSEE

<i>Demographics</i>	<i>N</i>	<i>English Language Arts</i>	<i>N</i>	<i>Mathematics</i>	<i>N</i>	<i>Both</i>
<u><i>Gender</i></u>						
Male	2355	50%	2229	38%	2352	30%
Female	2086	64%	2078	30%	2174	28%
<u><i>Ethnicity</i></u>						
White	1073	75%	1068	55%	1118	49%
Hispanic	2279	45%	2266	22%	2459	17%
African American	547	49%	529	20%	583	16%
Asian	1092	49%	1092	33%	1113	27%
Native American	27	59%	26	39%	28	36%
Filipino	28	79%	26	50%	28	46%
Pacific Islander	14	50%	15	40%	16	25%
<u><i>Home language</i></u>						
English					2841	31%
Spanish	340	35%	339	9%	1308	14%
Hmong	193	50%	190	23%	703	23%
Khmer	42	43%	41	27%	163	27%
Lao	41	56%	41	27%	134	32%
Vietnamese	8	25%	7	29%	36	42%
Other	31	45%	34	18%	155	39%
<u><i>English Language Proficiency</i></u>						
English only	3077	61%	3029	37%	3271	32%
FEP-R*	476	89%	472	61%	483	56%
<u><i>English Learners</i></u>						
Beginning	44	7%	47	4%	52	0%
Early Intermediate	109	0	118	2%	118	0%
Intermediate	493	11%	503	8%	504	2%
Early Advanced	576	39%	574	15%	580	10%
Advanced	101	54%	100	17%	97	14%

* Fluent English Proficient-Redesignated

CAHSEE Achievement differences between ethnic, racial, and language-minority students.

Ethnic and racial group membership

While the relatively low CAHSEE passing rates for ethnic and racial minority students underscore the existing achievement gap, closer examination indicated the achievement gap persisted even among students with passing scores. CAHSEE passing scores did not eliminate wide achievement differences between white and ethnic/racial minority students. A one-way ANOVA comparing passing test scores between white and ethnic/racial minority groups yielded statistically significant differences in English language arts [$F(6,2289) = 47.78$; $p < .001$] and mathematics [$F(6,1411) = 14.08$; $p < .001$]. A Tukey post hoc multiple comparison test indicated white students had significantly higher test scores than Hispanic, African American, and Asian students in English language arts and mathematics ($p < .05$).

ELL students were removed from the analysis to examine the extent achievement differences between ethnic and racial minority students were related to English language proficiency skills. ELL test scores may mask achievement levels related more to language than ethnicity. When ELL students were removed from the analysis, significant differences continued to exist between white and ethnic/racial minority students on CAHSEE English language arts. However, in mathematics, significant differences were found between white and Hispanic and African American students ($p < .05$), but not for Asian students. Post hoc comparisons indicated Asian students scored significantly higher than Hispanic and African American students in English language arts, and significantly higher than African American students in mathematics. Among Asian students, increased English language proficiency skills seemed to be a contributing factor toward achievement on CAHSEE.

Language group membership

This section examines CAHSEE results with close attention to the English language proficiency level and language group membership of students. Disaggregation of test scores for language groups provides increased understanding of divergent achievement levels among ELL students (California Department of Education, 2000).

Test score data for ELL students are typically aggregated without regard to level of English language proficiency, language group membership, country of origin, or instructional program placement. Examination of ELL achievement levels when disaggregated can provide increased understanding and accurate determination of the achievement gap with non-English Learners, (English only students). For example, the educational experiences of students may vary in schools and school districts due to the differential availability of primary language curricular materials, bilingual teachers, or community resources.

Test scores were grouped for ELL students with higher levels of English language proficiency and former ELL students. Typically, ELL students who reach fluent English proficiency are redefined in research studies and not reported with ELL achievement levels (Hakuta, 1999). Consequently, a population of high performing ELL students is

unnecessarily removed from the analysis. A one-way ANOVA comparing CAHSEE passing test scores between English only and major language groups yielded statistically significant differences in English language arts [$F(6,2662) = 31.848$; $p < .001$] and mathematics [$F(6,1566) = 11.85$; $p < .001$]. Post hoc comparisons indicated English only students scored significantly higher than Spanish, Khmer, and Hmong language students in English language arts, and significantly higher than Spanish and Hmong language students in mathematics. No significant differences were found between non-English language groups.

Comparison of test results between ethnic, racial, and language-minority students on the California Standards Test

Elements of the hidden curriculum can also be found in the limited access language-minority students had to grade level curricular content, irrespective of CAHSEE achievement levels. As outlined in the legislation, the purpose of Senate Bill 2X is to *develop a high school exit examination ...in accordance with the statewide academically rigorous content standards adopted by the state board of education.*

However, examination of passing CAHSEE scores suggests achievement levels were not related to mastery of grade level content. Therefore, passing scores do not guarantee students will be prepared for post high school educational opportunities.

This section examines the relationship between CAHSEE achievement and performance on the CST.

Ethnic and racial group differences

A one-way ANOVA that compared CST test scores for students passing CAHSEE yielded statistically significant differences between white and ethnic/racial minority students on CST in English language arts [$F(6,2170) = 35.61$; $p < .001$] and mathematics [$F(6,1211) = 9.04$; $p < .001$]. Post hoc comparisons indicated white students scored significantly higher than Hispanic, African American, and Asian students in English language arts. In addition, Asian students scored significantly higher than Hispanic ($p < .004$) and African American students ($p < .001$).

In CST mathematics, significant differences were found between white and Hispanic and African American students. Asian students also scored significantly higher than Hispanic ($p < .002$) and African American ($p < .04$) students.

Language group differences

Examination of language group achievement differences on CST included only English Learners with higher levels of English language proficiency skills. This prevented low levels of English language proficiency as a major contributing factor to poor achievement among English Learners (Association of Educational Researchers Association, 2000). A one-way ANOVA comparing English only students to all language groups with passing CAHSEE scores yielded statistically significant differences on CST in English language arts [$F(6,2525) = 29.18$; $p < .001$] and mathematics [$F(6,1339) = 7.94$; $p < .001$]. On CST English language arts, English only students scored significantly

higher than Spanish, Lao ($p < .002$), Khmer, and Hmong language students. In mathematics, English only students scored significantly higher than Spanish language students.

The Relationship between CAHSEE achievement levels and results on the California English Language Development Test.

This section examines the relationship of CAHSEE achievement levels to English language proficiency skills as indicated on the California English Language Development Test (CELDT). High-stakes tests perpetuate inequalities when they marginalize or extend opportunities to some students over others. As others have argued, the status and opportunities of students is elevated when they possess valued cultural capital. As a form of cultural capital, English language proficiency is an effective filtering device in the reproduction of power. Students with proficient English language skills were privileged when taking CAHSEE, while non-English language skills were devalued and invalidated.

While ELL students are deferred from passing CAHSEE until 24 months of enrollment in public schools have been obtained, there is a mismatch between CAHSEE requirements and second-language acquisition theory. Under CAHSEE requirements, English Learners are expected in three years to gain content knowledge and academic skills in English language arts and mathematics while learning English. Yet others have found the time period for English Learners to become English proficient to last from four to seven years (Cummins, 1989).

English learners at *Advanced* levels of CELDT were more likely to pass CAHSEE. For example, 57% of students at *Advanced* proficiency level passed CAHSEE in English Language Arts compared to 39% of students at *Early advanced* proficiency level (See Table 2). A larger percentage of students at *Advanced* (17%) than *Early Advanced* (15%) level of English language proficiency passed CAHSEE mathematics (See Table 3). Results indicate that students who score at proficient levels on English Language Development standards do not necessarily have academic skills to pass CAHSEE.

Table 2
Percent of Early Advanced and Advanced Students Passing CAHSEE English Language Arts by Primary Language

Primary Language	Percent Passing	
	Early Advanced	Advanced
Spanish	32.6%	50.0%
Hmong	46.0%	73.7%
Khmer	38.9%	71.4%
Lao	51.4%	71.4%
Vietnamese	25.0%	
Other Non-English	43.5%	50.0%
Total	39%	57%

Table 3

Percent of Early Advanced and Advanced Students Passing CAHSEE Mathematics by Primary Language

Primary Language	Percent Passing	
	Early Advanced	Advanced
Spanish	8.4%	12.1%
Hmong	23.7%	15.8%
Khmer	22.9%	42.9%
Lao	26.5%	25.0%
Vietnamese	28.6%	
Other Non-English	11.5%	25.0%
Total	15%	17%

Discussion

The concepts of the hidden curriculum and cultural capital help illustrate how CAHSEE failed to improve achievement levels for all students and exacerbated educational inequalities for students who failed the test. This discussion will focus on how CAHSEE test scores have been mistakenly attributed to reflect achievement levels that differentiate students qualified to earn a high school diploma; masked a fundamental educational barrier to academic achievement, the opportunity to learn; and led to regulated instruction for students who failed the test.

Wide Achievement differences between ethnic, racial, and language-minority students

Analysis of passing test scores suggests CAHSEE did not close the achievement gap between language-minority and language-majority students. While emphasis has been on the disproportionately low CAHSEE passing rates among language-minority students, little attention has focused on the meaning of CAHSEE passing scores. CAHSEE passing test scores were not meaningful and masked the critical issue of the opportunity to learn. Wide differences in achievement between ethnic/racial and language minority students may cause many students who passed the test to be ill prepared to succeed in institutions of higher learning.

Moreover, findings in this study suggest achievement levels among language-minority students were related to the large numbers of English Learners who constitute some minority groups more than others. Therefore, caution should be exercised when conclusions are made about academic deficiencies of students when English language proficiency is an important factor. The failure of a high-stakes test to increase achievement brings into question the purpose and unintentional effects of a critical element of school reform. Corroborating evidence that CAHSEE test scores were not meaningful indicators of achievement is discussed below.

The relationship to achievement between CAHSEE and the California Standards Test

CASHSEE regulations require the test to have curricular and instructional validity and measure the high standards adopted by the California State Board of Education. Senate Bill 2X reads in part that the state *shall develop a high school exit examination ...in accordance with the statewide academically rigorous content standards adopted by the state board of education* (Senate Bill 2X, 1999). Yet students who passed CAHSEE had wide variability in performance on the grade level California Standards Test, rendering CAHSEE achievement levels as unreliable indicators of increased achievement.

The emphasis on CAHSEE test scores has effectively shifted attention away from equal access issues for language-minority students. The control and regulation of curricular access to grade level content for language-minority students is evidenced by the relatively small percentage of ELL students who completed grade level mathematics in 2002. For example, 2002 statewide test results indicated 29% of all eighth grade students completed the appropriate grade level algebra test compared to 3% of ELL students. Among eleventh grade students expected to complete algebra II, 14% of all students took the appropriate grade level test compared to 1% of ELL students.

The concept of the hidden curriculum is a useful device to explain how the cause of poor performance on CAHSEE was attributed to the academic deficiencies of students. Students who failed CAHSEE suffer severe consequences such as remedial instruction, required summer school, and enrollment in special classes. Legislative regulations require academic interventions for students who fail CAHSEE.

The governing board of each district ...shall offer summer school instructional programs ... for pupils...who do not demonstrate sufficient progress toward passing the exit examination (Senate Bill 2X, 1999).

An insidious effect of this high-stakes test is narrowing of the curriculum through the assignment of students to remedial curricular programs and interventions that impact learning opportunities. School districts were asked to restructure *academic offerings reducing the electives available to any pupil who has not demonstrated the skills necessary to succeed on the exit exam, so that the pupil can be provided supplemental instruction during the regularly scheduled academic year* (Senate Bill 2X, 1999).

Comparison of CAHSEE and CST Test scores for students with different levels of English language proficiency

The concept of cultural capital best describes how preferred language skills advantaged native English speakers and penalized ELL students. While CAHSEE legislative requirements defer ELL students from passing the test for up to 24 months, in practice, many students require four to seven years of instruction to acquire the level of English language skills necessary to compete with native English speakers (Cummins, 1989). Results in this study supported the argument that a mismatch exists between the requirements of high-stakes tests and second-language acquisition theory. Even English Learners at higher levels of English language skills were unable to pass CAHSEE. The problem is exacerbated when English Learners are denied access to core content areas

while instructional time is spent on learning English. This sequential model prevents many English Learners from equal access to grade level curriculum before their four years of high school education is exhausted.

Research on correlates to academic achievement among English Learner populations has often focused attention on such student background variables as gender, ethnic/racial minority group membership, socioeconomic status, and immigrant experience (Rumberger, 1991). Studies often over simplify the relationship of student background variables to achievement because ELL students are treated as homogeneous student populations with common educational, socio-cultural, and historical experiences. Yet ELL students represent populations from diverse language groups, with unique immigrant experiences, and various levels of English language proficiency. Others have found language-minority groups to experience diverse educational experiences (Ogbu, 1988), opportunities (Salazar, 1997), and expectations (Matute-Bianchi, 1986).

The 24-month CAHSEE regulation applied to all ELL students, suggests qualifying criteria for CAHSEE testing reflected what Bourdieu and Passeron (1977) refer to as cultural capital. Bourdieu and Passeron argue that schools use cultural capital as an effective filtering device in the reproduction of power. In this study, disparate CAHSEE test scores suggested that English language proficiency as a form of cultural capital operated as an exclusionary device, and increased understanding about how high-stakes test contributed to the reproduction of educational inequalities.

One aim of CAHSEE is to provide all students with equal access to a quality curriculum without assigning advantages based on language skills. However, the research data indicated ELL students lacked appropriate and sufficient access to grade level curricular programs. Instead, CAHSEE test scores exacerbated the exclusionary role of cultural capital through the assignment of students to regulated curricular programs. The implication is that CAHSEE is a hegemonic instrument that sorts and selects students into educational paths based on test scores that are capricious and meaningless.

Conclusion and Implications

Research evidence in this study on the failure of CAHSEE to close the achievement gap between language-minority and language-majority students and reflect corresponding achievement levels on a grade level test, have important educational, instructional, and research implications. These are discussed below.

Educational Implications

Increased dropout rates have been found in states that have instituted high school exit exams (Thurlow et.al., 1997). However, the rates may underestimate the number of students who drop out of school. Anecdotal evidence suggests students who fail exit exams are redirected to other educational institutions such as adult school, community colleges or vocational schools. Because language-minority students enter U.S. schools at

an older age than their native born peers, there is a decreased opportunity to pass CAHSEE before students turn 18 and are no longer required to attend public schools.

The apparent low level of achievement skills necessary to pass CAHSEE may not be sufficient preparation for students to be successful in institutions of higher learning. Others have found the increased number of students required to take remedial courses in state universities. Further research is needed to determine the extent high school exit exams affect the number of students requiring college remediation classes.

Instructional Implications

High school exit exams may lead to a two-tiered curricular system, one for students who pass and another one for students who fail the tests. Previous approaches to increase achievement levels of high school graduates have focused on remedial instruction and coursework. Remedial programs are typically designed to teach basic academic and test taking skills. Targeting resources toward students who failed exit exams may be ill advised since even students with passing scores may warrant increased academic preparation.

Instructional effects of exit exams may exacerbate achievement differences between language-minority and language-majority students. For example, recent research suggests English Learners do not have equal access to rigorous curricular content standards (Oakes, Gamoran, & Page, 1992). Many ELL students take English language development classes in high school that leave little or no room in their schedule for the completion of all requirements for graduation. In some cases, students are not given some academic courses until certain levels of English language proficiency skills are attained. Further research is needed to determine the extent the achievement gap between students who passed or failed CAHSEE is attributed to differential opportunities to learn rather than deficit academic skills.

Currently, CAHSEE only focuses on content standards in English language arts and mathematics. However, achievement gaps in science and social studies may become apparent when other content areas are added to the test. The potential implication is that factors that contribute to student achievement may be related more to access to content standards more than poor academic skills. The academic focus may be better suited by increased access to college preparatory classes rather than increased remediation.

Research Implications

The apparent mismatch in achievement levels between CAHSEE and a state required standards based assessment suggests the current assessment system is disjointed and incoherent. Results in this study suggest achievement levels required for passing CAHSEE may impede the creation of a coherent state assessment system with viable instruments to increase student achievement and improve school accountability. Students may graduate without grade level academic skills as indicated on other state tests. In addition, there are no consistent testing requirements for ELL students on high school exit exams (Rivera & Vincent, 1996). The recent federal No Child Left Behind Act legislation provides ELL students with up to three years in the U.S. schools before state

testing is required. However, many states test ELL students based on such criteria as years in the U.S., English language proficiency, or years of enrollment in public schools.

The critical research question of when is it appropriate to test ELL students on high-stakes tests (National Clearinghouse for Bilingual Education, 1997) is difficult to address when test results cannot be compared due to non-aligned state tests, and criteria for testing students varies by states. Instead, the testing of English Learners is often based on political decisions rather than sound educational practices. Future research should focus on theories and models that improve our understanding of political pressures, processes, and interest groups that define issues surrounding high-stakes tests.

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