



The relationship between English proficiency and content knowledge for English language learner students in grades 10 and 11 in Utah

















# The relationship between English proficiency and content knowledge for English language learner students in grades 10 and 11 in Utah

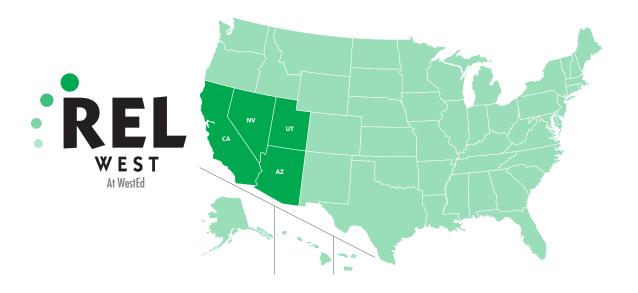
March 2011

Prepared by
Eric W. Crane
WestEd

Vanessa X. Barrat
WestEd

Min Huang
WestEd





**Issues & Answers** is an ongoing series of reports from short-term Fast Response Projects conducted by the regional educational laboratories on current education issues of importance at local, state, and regional levels. Fast Response Project topics change to reflect new issues, as identified through lab outreach and requests for assistance from policymakers and educators at state and local levels and from communities, businesses, parents, families, and youth. All Issues & Answers reports meet Institute of Education Sciences standards for scientifically valid research.

### March 2011

This report was prepared for the Institute of Education Sciences (IES) under Contract ED-06-CO-0014 by Regional Educational Laboratory West administered by WestEd. The content of the publication does not necessarily reflect the views or policies of IES or the U.S. Department of Education nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

This report is in the public domain. While permission to reprint this publication is not necessary, it should be cited as:

Crane, E.W., Barrat, V.X., and Huang, M. (2011). *The relationship between English proficiency and content knowledge for English language learner students in grades 10 and 11 in Utah.* (Issues & Answers Report, REL 2011–No. 110). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory West. Retrieved from http://ies.ed.gov/ncee/edlabs.

This report is available on the regional educational laboratory web site at http://ies.ed.gov/ncee/edlabs.

**Summary** REL 2011–No. 110

# The relationship between English proficiency and content knowledge for English language learner students in grades 10 and 11 in Utah

This study examines the relationship between performance on Utah's English proficiency assessment and English language arts and mathematics content assessments by English language learner students and compares the performance of English language learner and non—English language learner students on the content assessments.

Utah has approximately 45,000 English language learner students (U.S. Department of Education 2009), or about 8 percent of its K-12 student population. Staff in the Utah State Office of Education are interested in better understanding the academic performance of English language learner students in relation to their English proficiency and in comparison with the academic performance of their non-English language learner peers. Thus, Utah State Office of Education staff asked Regional Educational Laboratory (REL) West to study the performance of English language learner students in grades 10 and 11 on the Utah Academic Language Proficiency Assessment (UALPA) and on the English language arts and mathematics content assessments administered under the Utah Performance Assessment System for Students (U-PASS). They also asked that the study compare English

language learner students' and their non–English language learner peers' performance on the content assessments.

Anecdotal reports of English language learner students who performed better on the content assessments than on the language proficiency assessment, a counterintuitive outcome, had raised questions about assessment validity. Utah State Office of Education staff also wanted a comparison of English language learner students' performance on the language proficiency assessment and their performance on the content assessments because Utah's rules for redesignating English language learner students as fluent, which are based on performance on both assessments, had changed at the beginning of 2008/09, lowering the required U-PASS English language arts assessment score. And state staff had seen a performance gap between English language learner students' and their non-English language learner peers and wanted to better understand its magnitude and any contentspecific patterns.

Two research questions guided this study:

1. What is the distribution of performance of English language learner students in

grades 10 and 11 on the Utah Academic Language Proficiency Assessment, compared with their performance on the English language arts and mathematics content assessments of the Utah Performance Assessment System for Students?

2. How does the performance of English language learner students on the English language arts and mathematics content assessments of the Utah Performance Assessment System for Students compare with that of non–English language learner students, overall and by content standard?

The Utah State Office of Education provided student-level datasets of all grade 10 and 11 students who took the language proficiency and content assessments in 2008/09. The language proficiency datasets included overall scaled scores and score categories (pre-emergent, emergent, intermediate, and advanced) and the content assessment datasets included the number and percent of correct responses by content standard for each student. Student records were linked across assessments by an anonymous numerical identifier.

# Findings include:

• Of grade 10 students who scored below intermediate on the language proficiency assessment, 6 percent scored 3 or 4 (the highest two scores) on the English language arts content assessment; of grade 10 students who scored intermediate on the language proficiency assessment, 14 percent scored 3 or 4 on the English language arts content assessment; and of grade 10 students who scored advanced on the language proficiency assessment, 59 percent

- scored 3 or 4 on the English language arts content assessment.
- Of grade 11 students who scored below intermediate on the language proficiency assessment, 1 percent scored 3 or 4 on the English language arts content assessment; of grade 11 students who scored intermediate on the language proficiency assessment, 9 percent scored 3 or 4 on the English language arts content assessment; and of grade 11 students who scored advanced on the language proficiency assessment, 33 percent scored 3 or 4 on the English language arts content assessment.
- The pre-2008/09 criteria for redesignating students as fluent in English were met by 19.7 percent of English language learner students in grade 10 and 12.9 percent in grade 11. The criteria introduced in 2008/09 were met by 25.4 percent of English language learner students in grade 10 and 19.5 percent in grade 11.
- About 9 percent of English language learner students in grade 10 and 5 percent in grade 11 scored 3 or 4 on the English language arts content assessment and below advanced on the language proficiency assessment.
- English language learner students were outscored by non–English language learner students by an average of 1.3–1.6 standard deviations in both grades on the English language arts content assessment and by an average of 0.4–0.7 standard deviation on the mathematics content assessments.

With the continuing growth over the past decade in the number of English language learner students in the West Region, helping states better serve this subgroup is a priority for REL West. The information from this study is expected to aid the Utah State Office of Education in generating descriptive information about English language learner students' performance on the language proficiency and content assessments,

in informing ongoing discussions of rules related to when students should be moved out of English language learner status, and in helping the state agency's curriculum and instruction and assessment programs develop a richer understanding of English language learner students' performance on specific content.

**March 2011** 

# **TABLE OF CONTENTS**

# Why this study?

# Findings 6

Comparing English language learner students' performance on the Utah Academic Language Proficiency
Assessment and English language arts and mathematics content assessments
7

Comparing the performance of English language learner and non–English language learner students on English language arts and mathematics content assessments, overall and by content standard

**Conclusion** 17

References 18

### **Boxes**

- 1 Determining English language learner status in Utah 2
- 2 About the Utah Academic Language Proficiency Assessment and the Utah Performance Assessment System for Students 2
- 3 Data and methodology 5

# **Figures**

- Distribution of English language learner students' scores on the Utah Performance Assessment System for Students English language arts assessment, by grade level and Utah Academic Language Proficiency Assessment score, 2008/09 (percent) 8
- 2 Distribution of English language learner students' scores on the Utah Performance Assessment System for Students mathematics assessments, by mathematics course and Utah Academic Language Proficiency Assessment score, 2008/09 (percent) 8
- 3 Distribution of scaled scores on the Utah Performance Assessment System for Students English language arts assessment, by grade level and English language learner status, 2008/09 11
- Distribution of scaled scores on the Utah Performance Assessment System for Students mathematics assessments, by mathematics course and English language learner status, 2008/09 11
- Distribution of scores on the Utah Performance Assessment System for Students English language arts assessment, by grade level and English language learner status, 2008/09 (percent) 12
- 6 Distribution of scores on the Utah Performance Assessment System for Students mathematics assessments, by mathematics course and English language learner status, 2008/09 (percent) 12
- Distribution of scaled scores on the Utah Performance Assessment System for Students English language arts assessment among English language learner students who scored advanced on the Utah Academic Language Proficiency Assessment and non–English language learner students, by grade level, 2008/09 14
- 8 Distribution of scaled scores on the Utah Performance Assessment System of Students mathematics assessment among English language learner students who scored advanced on the Utah Academic Language Proficiency Assessment and non–English language learner students, by mathematics course, 2008/09 14

- 9 Distribution of scores on the Utah Performance Assessment System for Students English language arts assessment among English language learner students who scored advanced on the UALPA and non–English language learner students, by grade level, 2008/09 15
- Distribution of scores on the Utah Performance Assessment System for Students mathematics assessments among English language learner students who scored advanced on the Utah Academic Language Proficiency Assessment and non–English language learner students, by mathematics course, 2008/09 15

# **Tables**

- Joint distribution of English language learner students' scores on the Utah Academic Language Proficiency Assessment and the Utah Performance Assessment System for Students English language arts assessment, by grade level, 2008/09 (percent) 7
- 2 Joint distribution of English language learner students' scores on the Utah Academic Language Proficiency Assessment and the Utah Performance Assessment System for Students mathematics assessments, by mathematics course, 2008/09 (percent) 9
- 3 Distribution of English language learner students, by Utah Academic Language Proficiency Assessment and Utah Performance Assessment System for Students scores and grade level, 2008/09 (percent) 10
- 4 Difference in average number of correct answers on the U-PASS by content standard and English language learner status, 2008/09 13
- Difference in mean correct answers on the Utah Performance Assessment System for Students among English language learner students who scored advanced on the UALPA and non–English language learner students, by content standard and grade level or mathematics course, 2008/09 16

This study examines the relationship between performance on **Utah's English** proficiency assessment and English language arts and mathematics content assessments by **English language** learner students and compares the performance of **English language** learner and non-**English language** learner students on the content assessments.

### WHY THIS STUDY?

With the continued growth over the past decade in the number of English language learner students in the West Region, helping states better serve this subgroup is a priority for Regional Educational Laboratory (REL) West. Utah has approximately 45,000 English language learner students (U.S. Department of Education 2009), or about 8 percent of its K-12 student population (see box 1 for more on English language learner students in Utah). Staff from the Utah State Office of Education are interested in better understanding the academic performance of students in this subgroup in relation to their English proficiency and in comparison with the academic performance of their non-English language learner peers. Agency staff asked REL West to explore the relationship between the performance of Utah's English language learner students on the state's language proficiency assessment, the Utah Academic Language Proficiency Assessment (UALPA), and their performance on the state's English language arts and mathematics content assessments, which are administered under the Utah Performance Assessment System for Students (U-PASS; see box 2 for more information on these assessments).

Utah's request was based in part on anecdotal reports of high school English language learner students who scored below advanced on the state's language proficiency assessment (the highest score and one of the requirements for redesignating English language learner students as fluent) but scored 3 or 4 (the highest two scores and the other requirement for redesignating English language learner students as fluent prior to 2008/09; see box 1) on the state content assessment for English language arts. This outcome runs counter to the assumption that English language proficiency as measured by the UALPA was an accurate indicator of the ability to understand content and thus to perform well on content assessments, particularly the English language arts assessment (D. Smith, former Utah Assessment Development Coordinator, personal communication, December 16, 2008). This seemingly anomalous score pairing

### BOX 1

# Determining English language learner status in Utah

In Utah, all newly enrolled students in a district are given a homelanguage survey to determine whether they should be considered for English language learner identification. Those who have a primary home language other than English take the Utah Academic Language Proficiency Assessment (UALPA) to assess their English proficiency (preemergent, emergent, intermediate, or advanced; see box 2) and determine whether to classify them as an English language learner student. If a student is classified as an English language learner, the school's Alternative Language Services team meets to decide how to best assist the student in acquiring English proficiency. Parents are notified, and unless they opt otherwise, the student begins to receive language support services as soon as possible.

The official definition of an English language learner student, according to Rule R277-716, Alternative Language Services for Utah Students (Utah Department of Administrative Services n.d.), is an individual:

"who has sufficient difficulty speaking, reading, and writing or understanding the English language and whose difficulties may deny such individual the opportunity to learn successfully in classrooms where the language of instruction is English or which may deny the individual the opportunity to participate fully in society; or

"who was not born in the United States or whose native language is a language other than English and who comes from an environment where a language other than English is dominant; or

"who is an American Indian or Alaskan native or who is a native resident of the outlying areas and comes from an environment where a language other than English has had a significant impact on such individual's level of English language proficiency."

Scores from the UALPA and the Utah Performance Assessment System for Students (U-PASS) are used in determining when to reclassify a student in English language learner status to fluent status. In 2006/07 and 2007/08, the first two years the UALPA was administered, a score of advanced on the UALPA, together with a score of 3 or 4 (the highest two scores) on the English language arts assessment of the U-PASS (see box 2), was required for an English language learner student to be redesignated as fluent. Beginning in 2008/09, a score of advanced on the UALPA together with a score of 2b (the third highest score) on the U-PASS English language arts assessment was sufficient for redesignation.

### BOX 2

# About the Utah Academic Language Proficiency Assessment and the Utah Performance Assessment System for Students

Two assessments are used in this study: the Utah Academic Language Proficiency Assessment (UALPA) and the Utah Performance Assessment System for Students (U-PASS).

Utah Academic Language Proficiency Assessment. The UALPA is administered annually to every English language learner student enrolled in a Utah district prior to April 15 of the school year. It measures English language proficiency in the four language acquisition modalities—listening, speaking, reading, and writing—and yields a comprehension score calculated from selected parts of the reading and listening scores. The UALPA identifies students as performing at one of four English proficiency levels: pre-emergent, emergent, intermediate, and advanced (Utah State Office of Education 2007):

"Pre-emergent (P): The student has limited or no understanding of oral

or written English, so he/she participates by listening. The student may demonstrate comprehension by using a few isolated words or expressions of speech. The student typically draws, copies, or responds verbally in his/her native language to simple commands, statements and questions. The student may understand the relationship between oral and written languages.

"Emergent (E): The student has begun to understand that written language represents oral language. The student understands and responds to basic BOX 2 (CONTINUED)

# About the Utah Academic Language Proficiency Assessment and the Utah Performance Assessment System for Students

social conventions, simple questions, simple directions, and appropriate level text. He/she participates in classroom routines. In general, the student speaks, reads, and writes using single words, short phrases, or simple sentences with support. Overall, the student has minimal expressive vocabulary.

"Intermediate (I): The student understands and uses more abstract, academic, and formal language and literacy skills. He/she participates actively in most social and classroom tasks using idioms and more content-specific language in speech and writing. The student reads and writes independently for personal and academic purposes, with some persistent errors. With some support, the student reads and writes about various topics using different genres for a variety of audiences.

"Advanced (A): The student has developed proficiency in the English language and literacy skills. The student may need continued support when engaged in complex academic tasks that require increasingly academic

language. Students at this level attend mainstream or sheltered instruction classes."

All newly enrolled English language learner students and all English language learner students who score below advanced on the UALPA are required to take the assessment during its next administration (Utah State Office of Education 2009; see box 1).

Utah Performance Assessment System for Students. U-PASS, Utah's assessment and school accountability system, tests students using a criterion-referenced content assessment—annually in grades 2–11 for English language arts and annually in grades 2–7, with assessments by course thereafter, for mathematics.

The U-PASS content standards examined for grade 10 and 11 English language arts are standard I (comprehend informational and literary text), standard II (write informational and literary text), and standard III (seek and give information using the process of inquiry). The content standards examined

for algebra I are standard I (expand number sense to understand, perform operations, and solve problems with real numbers), standard II (extend concepts of proportion to represent and analyze linear relations), standard III (develop fluency with the language and operations of algebra to analyze and represent relationships), and standard IV (understand concepts from statistics and apply statistical methods to solve problems). The content standards examined for geometry are standard I (use algebraic, spatial, and logical reasoning to solve geometry problems), standard II (use the language and operations of algebra to explore geometric relationships with coordinate geometry), standard III (extend concepts of proportion and similarity to trigonometric ratios), and standard IV (use algebraic, spatial, and logical reasoning to solve measurement problems).

U-PASS performance is split into six score categories, 1a, 1b, 2a, 2b, 3, and 4 in order from lowest to highest performance. (The state does not apply text labels to these categories.)

raised questions about the validity of the language proficiency assessment, and Utah State Office of Education staff wanted to know the prevalence of this unexpected combination.

The purposes of the assessments are different: the language proficiency assessment tests proficiency in listening, speaking, reading, and writing the English language. The content assessment in English language arts measures mastery of academic

content and achievement standards in English language arts. Furthermore, neither assessment was developed taking into account the properties of the other, so the meaning of a student's score on one assessment is unclear in the context of the student's score on the other.

Better understanding connections between language proficiency and academic proficiency is also important in Utah's continuing effort to set

Better understanding connections between language proficiency and academic proficiency is important in Utah's continuing effort to set the bar appropriately for redesignating English language learner students as fluent and removing them from programs and services supporting students who are not yet fluent

the bar appropriately for redesignating English language learner students as fluent and removing them from programs and services supporting students who are not yet fluent. Scores from both assessments have provided evidence for determining whether to reclassify individual English language learner students. At the beginning of the 2008/09 school year, the U-PASS performance requirement was changed so that a lower score on the English language arts assessment, along with an advanced score on the

UALPA, allowed a student to be redesignated (see box 1). State staff wanted to know how this change affected the number and percentage of English language learner students who would be redesignated. Because exit rules for English language learner status are likely to continue to include a baseline achievement level on both the language proficiency assessment and the English language arts content assessment, understanding the relationship between performance on the UALPA and the U-PASS content assessments is helpful to developing and maintaining sound English language learner student policy.

There are three reasons behind the study's focus on the assessment performance of students in grades 10 and 11 and not other grades. First, the U-PASS English language arts assessment shows a large performance gap between English language learner students and non-English language learner students at the secondary level. In particular, whereas at the elementary level, English language learner students who score advanced on the UALPA score 3 or 4 on U-PASS at rates comparable to those of non-English language learner students, at the secondary level, English language learner students who score advanced on the UALPA trail other students in scoring 3 or 4 on U-PASS by 12 percentage points or more (R. Honaker, former Utah Assessment Results Coordinator, and D. Smith, personal communication,

December 16, 2008). Second, Utah State Office of Education staff have identified the gap between these two groups of students at the secondary level as a topic of particular concern (R. Honaker and D. Smith, personal communication, December 16, 2008). Third, certain data do not exist for students in grade 12 (for example, students do not take the U-PASS content assessment in English language arts in grade 12), but enough students take the UALPA and the U-PASS in grades 10 and 11.

State Office of Education staff also sought to better understand the achievement gap between English language learner students and their non-English language learner peers. Although the Utah State Office of Education reports the percentage of students, both overall and by English language learner status, who score 3 or 4 (the highest two scores) on the U-PASS, its staff have neither analyzed the differences in terms of scaled score points nor examined group performance differences by content standard. Such analysis could improve the agency's curriculum and instruction experts' understanding of relationships between language proficiency status and specific content. English language arts content standards are the same for grades 10 and 11: standard I addresses comprehension, standard II addresses writing, and standard III addresses inquiry. Mathematics standards are unique to each subject, so there is no crossover between standard I for algebra I and standard I for geometry, for example (see box 2). Box 3 provides more information on the data and methodology behind this study.

The findings of this study are expected to aid the Utah State Office of Education in generating basic descriptive information about English language learner students' performance on the language proficiency and content assessments, in informing ongoing discussions of rules related to when students should be moved out of official English language learner status, and in helping the agency's curriculum and instruction and assessment programs develop a richer understanding of English language learner students' performance on specific content.

### BOX 3

# Data and methodology

Data. Regional Educational Laboratory (REL) West acquired assessment and demographic data files from the Utah State Office of Education. Each file was stripped of information that could identify individual students. Numerical student identifiers allowed the research team to link student records across assessment and demographic data files.

The dataset included 36,326 students in grade 10 (99.3 percent of the state's 36,584 grade 10 students) and 34,837 students in grade 11 (99.1 percent of the state's 35,146 grade 11 students) who took the Utah Performance Assessment System for Students (U-PASS) English language arts assessment, 9,590 students in grades 10 and 11 who took the algebra I assessment, and 17,112 students in grades 10 and 11 who took the geometry assessment in 2008/09. For comparisons of subgroup performance on the U-PASS content assessments by content standard, student-level data that included the raw score on each standard was provided.

In 2008/09, 3,089 (4.3 percent) of the 71,730 students in grades 10 and 11 who are included in the analysis were classified as English language learner students; 76 percent were Hispanic, 7 percent were Asian, 5 percent were Pacific Islander, 4 percent were American Indian, 4 percent were White, and 3 percent were Black (less than 1 percent did not indicate an ethnicity). In addition, 17 percent were students with disabilities, and

73 percent received free or reducedprice meals. And 2,629 (85.1 percent) of the English language learners in this study had a Utah Academic Language Proficiency Assessment (UALPA) score for 2008/09; 2 percent of them were categorized as preemergent, 8 percent as emergent, 55 percent as intermediate, and 35 percent as advanced.

Non-English language learner students accounted for 95.7 percent of Utah students in grades 10 and 11. Of the non-English language learner students in the study, 84 percent were White, 10 percent were Hispanic, 2 percent were Asian, 1 percent were Pacific Islander, 1 percent were American Indian, and 1 percent were Black (less than 1 percent did not indicate an ethnicity). In addition, 8 percent were students with disabilities, and 24 percent received free or reduced-price meals.

Methodology. The joint distribution of UALPA and U-PASS performance is summarized in grade-specific crosstabulations. A 3x6 cross-tabulation for each grade and subject summarizes joint performance in terms of performance categories. Although the UALPA has four score categories, the pre-emergent and emergent categories are sparsely populated and were combined for this study. The crosstabulations also inform the question of rules for exiting English language learner status. The percentage of students meeting various conjunctive rules—those involving performance on both assessments—can be read from cells in the appropriate table, and rules based on a single

assessment can be read from row or column totals. To address the relationship between UALPA and U-PASS scores, a 2x2 contingency table for each subject and grade is presented.

The distribution of scaled scores on the U-PASS is shown in box-and-whisker plots for English language learner and non-English language learner students. To report group performance differences by content standard, both raw score differences and normalized differences are presented. Normalized differences are raw score differences divided by the pooled (English language learner and non-English language learner students combined) standard deviation of scores on each content standard. The pooled variance is

$$s_{\text{pooled}}^2 = [(N_{\text{ELL}} - 1)s_{\text{ELL}}^2 + (N_{\text{NON}} - 1)$$
  
 $s_{\text{NON}}^2] / (N_{\text{ELL}} + N_{\text{NON}} - 2)$ 

where ELL denotes the English language learner group and NON denotes the non–English language learner group. Comparing raw scores alone lacks a common metric and may be misleading. Because content-level scores are based on varying numbers of items, differences between the scores of English language learner students and those of non–English language learner students can be better understood by reporting both normalized and raw differences.

In statewide assessments in other states, content standard scores for individuals can be based on seven or fewer items; in such cases, reliability is a concern (Skorupski 2008). However, Utah's grade 10

### **BOX 3 (CONTINUED)**

# Data and methodology

and 11 content assessments include at least 10 items for each standard. Moreover, the current study's comparisons of performance at the content standard level are averages over hundreds of individuals in the case of English language learner students and thousands of individuals in the case of non–English language learner students, making questions of the reliability of an individual's content standard score irrelevant. However, to provide more information about

the differences between the performance of English language learner students and non–English language learner counterparts, both absolute and normalized differences are reported.

Two research questions guide this study:

- 1. What is the distribution of performance of English language learner students in grades 10 and 11 on the Utah Academic Language Proficiency Assessment, compared with their performance on the English language arts and mathematics content assessments of the Utah Performance Assessment System for Students?
  - What is the joint distribution of English language learner students across the performance categories of the UALPA and the U-PASS?
  - What was the effect of changing the redesignation rules related to scores on the U-PASS English language arts assessment and the UALPA on the percentage of English language learner students meeting redesignation requirements?
  - How do advanced scores on the UALPA relate to scores of 3 or 4 (the highest two scores) on the U-PASS English language arts and mathematics assessments for English language learner students?
- How does the performance of English language learner students on the English language arts and mathematics content assessments of the Utah Performance Assessment

System for Students compare with that of non–English language learner students, overall and by content standard?

- What is the overall distribution of U-PASS performance by English language learner status?
- How does the distribution of English language learner students across performance categories on the U-PASS English language arts and mathematics assessments compare with that of non-English language learner students?
- What are the differences in performance between English language learner students and non-English language learner students on the U-PASS English language arts and mathematics assessments by content standard?
- What are the findings when English language learner students who scored advanced on the UALPA are compared with non-English language learner students?

## **FINDINGS**

This section discusses the findings related to the study's two research questions on grade 10 and 11 English language learner and non–English language learner students.

Comparing English language learner students' performance on the Utah Academic Language Proficiency Assessment and English language arts and mathematics content assessments

Three subquestions were used to address the first research question.

What is the joint distribution of English language learner students across the performance categories of the UALPA and the U-PASS? There is a positive association between English language learner students' performance on the UALPA and their performance on the U-PASS English language arts assessment. Of the 9.6 percent of grade 10 English

language learner students who scored pre-emergent or emergent on the UALPA, 6 percent scored 3 or 4 (the highest two scores) on the U-PASS English language arts assessment (table 1, figure 1). Of the 57.0 percent of grade 10 English language learner students who scored intermediate on the UALPA, 14 percent scored 3 or 4 on the U-PASS English language arts assessment. Of the 33.4 percent of grade 10 English language learner students who scored advanced on the UALPA, 59 percent scored 3 or 4 on the U-PASS English language arts assessment.

The percentages of grade 11 English language learner students scoring in each UALPA category

TABLE 1

Joint distribution of English language learner students' scores on the Utah Academic Language Proficiency
Assessment and the Utah Performance Assessment System for Students English language arts assessment,
by grade level, 2008/09 (percent)

|  | UALPA category                           |  |              |          |       |
|--|--|--|--------------|----------|-------|
| Grade and U-PASS<br>English language arts score <sup>a</sup> |  | Pre-emergent<br>or emergent <sup>b</sup> | Intermediate | Advanced | Total |
| Grade 10   | 1a                                       | 6.2                                      | 12.7         | 2.1      | 21.0  |
| (N = 1,460)  | 1b                                       | 2.3                                      | 16.2         | 2.3      | 20.9  |
|  | 2a                                       | 0.3                                      | 12.3         | 3.6      | 16.2  |
|  | 2b                                       | 0.1                                      | 7.5          | 5.7      | 13.3  |
|  | 3  | 0.5                                      | 8.0          | 16.3     | 24.9  |
|  | 4  | 0.1                                      | 0.1          | 3.4      | 3.7   |
|  | Total                                    | 9.6                                      | 57.0         | 33.4     | 100.0 |
|  | Percent of UALPA category scoring 3 or 4 | 6  | 14           | 59       | 29    |
| Grade 11   | 1a                                       | 5.2                                      | 12.7         | 5.4      | 23.4  |
| (N = 1,068)  | 1b                                       | 2.1                                      | 20.2         | 7.0      | 29.3  |
|  | 2a                                       | 0.7                                      | 9.9          | 6.9      | 17.5  |
|  | 2b                                       | 0.6                                      | 4.9          | 6.6      | 12.0  |
|  | 3  | 0.1                                      | 4.4          | 11.0     | 15.5  |
|  | 4  | 0.0                                      | 0.4          | 1.9      | 2.2   |
|  | Total                                    | 8.6                                      | 52.5         | 38.9     | 100.0 |
|  | Percent of UALPA category scoring 3 or 4 | 1  | 9            | 33       | 18    |

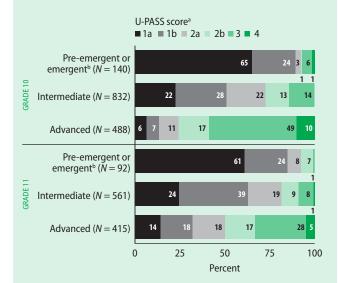
 $a.\,Higher\,numbers\,indicate\,better\,performance.$ 

Source: Authors' analysis of Utah Academic Language Proficiency Assessment and Utah Performance Assessment System for Students data from the Utah State Office of Education.

b. The pre-emergent and emergent categories were combined because of the small number of students in each grade who were assessed at each category. *Note*: Values may not sum to totals because of rounding.

### FIGURE 1

Distribution of English language learner students' scores on the Utah Performance Assessment System for Students English language arts assessment, by grade level and Utah Academic Language Proficiency Assessment score, 2008/09 (percent)



- a. Higher numbers indicate better performance.
- b. The pre-emergent and emergent categories were combined because of the small number of students in each grade who were assessed at each category.

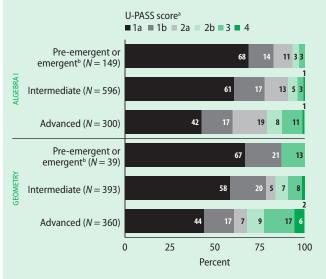
Note: Values may not sum to totals because of rounding.

Source: Authors' analysis of Utah Academic Language Proficiency Assessment and Utah Performance Assessment System for Students data from the Utah State Office of Education.

are similar to the percentages of grade 10 students: 8.6 percent scored pre-emergent or emergent, 52.5 percent scored intermediate, and 38.9 percent scored advanced (see table 1). But a smaller percentage of grade 11 English language learner students in all UALPA categories scored 3 or 4 (the highest two scores) on the U-PASS English language arts assessment. Of grade 11 English language learner students who scored pre-emergent or emergent on the UALPA, 1 percent scored 3 or 4 on the U-PASS English language arts assessment. Of grade 11 English language learner students who scored intermediate on the UALPA, 9 percent scored 3 or 4 on the U-PASS English language arts assessment. And of grade 11 English language learner students who scored advanced on the UALPA, 33 percent scored 3 or 4 on the U-PASS English language arts assessment.

### FIGURE 2

Distribution of English language learner students' scores on the Utah Performance Assessment System for Students mathematics assessments, by mathematics course and Utah Academic Language Proficiency Assessment score, 2008/09 (percent)



- a. Higher numbers indicate better performance.
- b. The pre-emergent and emergent categories were combined because of the small number of students in each grade who were assessed at each category.

Note: Values may not sum to totals because of rounding.

Source: Authors' analysis of Utah Academic Language Proficiency Assessment and Utah Performance Assessment System for Students data from the Utah State Office of Education.

There was also a positive association between English language learner students' performance on the UALPA and their performance on the U-PASS mathematics assessments. Of the 28.7 percent of English language learner students who took the U-PASS algebra I assessment and scored advanced on the UALPA, about 13 percent scored 3 or 4 (the highest two scores) on the algebra I assessment (figure 2, table 2). And of the 45.5 percent of English language learner students who took the U-PASS geometry assessment and scored advanced on the UALPA, 23 percent scored 3 or 4 on the geometry assessment.

What effect did changing the required scores on the U-PASS English language arts assessment have on the percentage of English language learner students meeting redesignation requirements? As of

Joint distribution of English language learner students' scores on the Utah Academic Language Proficiency Assessment and the Utah Performance Assessment System for Students mathematics assessments, by mathematics course, 2008/09 (percent)

|   |  |  | UALPA c      | ategory  |       |
|---|--|--|--------------|----------|-------|
| U-PASS English language arts score <sup>a</sup> |  | Pre-emergent<br>or emergent <sup>b</sup> | Intermediate | Advanced | Total |
| Algebra I                                       | 1a                                       | 9.8                                      | 34.5         | 12.2     | 56.5  |
| (N = 1,045)                                     | 1b                                       | 2.0                                      | 9.7          | 5.0      | 16.7  |
|   | 2a                                       | 1.5                                      | 7.6          | 5.6      | 14.6  |
|   | 2b                                       | 0.5                                      | 3.0          | 2.4      | 5.8   |
|   | 3  | 0.5                                      | 1.9          | 3.3      | 5.6   |
|   | 4  | 0.0                                      | 0.4          | 0.4      | 0.8   |
|   | Total                                    | 14.3                                     | 57.0         | 28.7     | 100.0 |
|   | Percent of UALPA category scoring 3 or 4 | 3  | 4            | 13       | 6     |
| Geometry<br>( <i>N</i> = 792)                   | 1a                                       | 3.3                                      | 28.9         | 19.9     | 52.1  |
|   | 1b                                       | 1.0                                      | 10.0         | 7.6      | 18.6  |
|   | 2a                                       | 0.0                                      | 2.7          | 3.3      | 5.9   |
|   | 2b                                       | 0.0                                      | 3.4          | 4.3      | 7.7   |
|   | 3  | 0.6                                      | 3.9          | 7.8      | 12.4  |
|   | 4  | 0.0                                      | 0.8          | 2.5      | 3.3   |
|   | Total                                    | 4.9                                      | 49.6         | 45.5     | 100.0 |
|   | Percent of UALPA category scoring 3 or 4 | 13                                       | 10           | 23       | 16    |

a. Higher numbers indicate better performance.

Source: Authors' analysis of Utah Academic Language Proficiency Assessment and Utah Performance Assessment System for Students data from the Utah State Office of Education.

2008/09, English language learner students have to score advanced on the UALPA and score 2b, 3, or 4 on the U-PASS English language arts assessment in order to exit English language learner status; prior to 2008/09, a score of 2b on the U-PASS English language arts assessment was not sufficient to exit English language learner status (see box 1). Among English language learner students in grade 10, 19.7 percent had the U-PASS and UALPA scores necessary for redesignation under the old rule, and 25.4 percent did under the new rule, a gain of 5.7 percentage points or 29 percent (see table 1). Among English language learner students in grade 11, 12.9 percent had the U-PASS and UALPA scores necessary for redesignation

under the old rule, and 19.5 percent did under the new rule, a gain of 6.6 percentage points or 51 percent.

How do advanced scores on the UALPA relate to scores of 3 or 4 (the highest two scores) on the U-PASS English language arts and mathematics assessments for English language learner students?

While the joint distribution reported in the first subquestion provides information about the complete set of pairs of performance scores on the UALPA and the U-PASS, some combinations of scores are of more interest to policymakers. Specifically, accountability policy in Utah distinguishes between scoring advanced or not advanced

b. The pre-emergent and emergent categories were combined because of the small number of students in each grade who were assessed at each category. *Note*: Values may not sum to totals because of rounding.

(pre-emergent, emergent, or intermediate) on UALPA and proficient (3 or 4) or not proficient (1a, 1b, 2a, or 2b) on the U-PASS. This section reports how an advanced score on the UALPA relates to a proficient score on the U-PASS.

Some 57.7 percent of English language learner students in grade 10 and 56.3 percent in grade 11 did not score advanced on the UALPA and did not score proficient on the U-PASS English language arts assessment (table 3). At the other end of the performance spectrum, 19.7 percent of English language learner students in grade 10 and 12.9 percent in grade 11 scored advanced on the UALPA and proficient on the U-PASS English language arts assessment. Some 13.7 of English language learner students in grade 10 and 25.9 percent in grade 11 scored advanced on the UALPA but did not score proficient on the U-PASS assessment. And 8.8 percent of English language learner students in grade 10 and 4.9 percent in grade 11 did not score advanced on the UALPA but scored proficient on the U-PASS English language arts assessment.

On the mathematics assessments, 68.5 percent of English language learner students who took the algebra I assessment and 49.2 percent who took the geometry assessment did not score advanced on the UALPA and did not score proficient on the U-PASS assessment (see table 3). By contrast, 3.6 percent of English language learner students who took the algebra I assessment and 10.4 percent who took the geometry assessment scored advanced on the UALPA and proficient on the U-PASS assessment. Some 25.1 percent of the English language learner students who took the algebra I assessment and 35.1 who took the geometry assessment scored advanced on the UALPA but did not score proficient on the U-PASS assessment. And 2.8 percent of English language learner students who took the algebra I assessment and 5.3 percent who took the geometry assessment did not score advanced on the UALPA but scored proficient on the U-PASS assessment.

TABLE 3

Distribution of English language learner students, by Utah Academic Language Proficiency Assessment and Utah Performance Assessment System for Students scores and grade level, 2008/09 (percent)

|                             | UALPA                     |            |                              |          |  |  |  |
|-----------------------------|---------------------------|------------|------------------------------|----------|--|--|--|
| U-PASS content              | Grade 10 ( <i>N</i>       | V = 1,460) | Grade 11 ( <i>N</i> = 1,068) |          |  |  |  |
| area and score              | Not advanced <sup>a</sup> | Advanced   | Not advanced <sup>a</sup>    | Advanced |  |  |  |
| English language arts       |                           |            |                              |          |  |  |  |
| Not proficient <sup>b</sup> | 57.7                      | 13.7       | 56.3                         | 25.9     |  |  |  |
| Proficient <sup>c</sup>     | 8.8                       | 19.7       | 4.9                          | 12.9     |  |  |  |
| Total                       | 66.6                      | 33.4       | 61.1                         | 38.9     |  |  |  |

|                             | Algebra I ( <i>N</i>      | V = 1,045) | Geometry ( <i>N</i> = 792) |          |  |
|-----------------------------|---------------------------|------------|----------------------------|----------|--|
|                             | Not advanced <sup>a</sup> | Advanced   | Not advanced <sup>a</sup>  | Advanced |  |
| Mathematics                 |                           |            |                            |          |  |
| Not proficient <sup>b</sup> | 68.5                      | 25.1       | 49.2                       | 35.1     |  |
| Proficient <sup>c</sup>     | 2.8                       | 3.6        | 5.3                        | 10.4     |  |
| Total                       | 71.3                      | 28.7       | 54.5                       | 45.5     |  |

a. Score of pre-emergent, emergent, or intermediate.

Note: Values may not sum to totals because of rounding.

Source: Authors' analysis of Utah Academic Language Proficiency Assessment and Utah Performance Assessment System for Students data from the Utah State Office of Education.

b. Score of 1a, 1b, 2a, or 2b.

c. Score of 3 or 4.

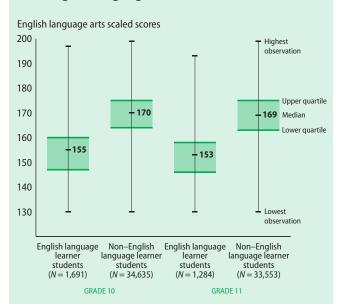
Comparing the performance of English language learner and non–English language learner students on English language arts and mathematics content assessments, overall and by content standard

Four subquestions were used to address the second research question.

What is the overall distribution of U-PASS performance by English language learner status? The middle 50 percent of the distribution of scaled scores on the U-PASS English language arts assessment in both grades 10 and 11 was lower for English language learner students than for non–English language learner students, and the median score was 15–16 scaled score points lower (figure 3). In addition, more than 75 percent of the English language learner students scored below the 25th percentile of the non–English language learner students.

FIGURE 3

Distribution of scaled scores on the Utah Performance Assessment System for Students English language arts assessment, by grade level and English language learner status, 2008/09



Note: The scale score ranges from 130 to 199.

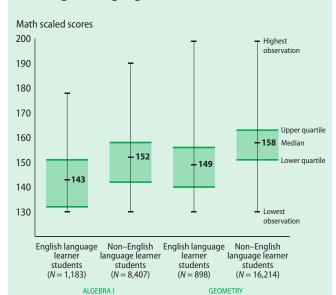
Source: Authors' analysis of student demographic data and Utah Performance Assessment System for Students data from the Utah State Office of Education.

The distribution of scaled scores on the U-PASS mathematics assessments for grades 10 and 11 shows more overlap between English language learner students and non–English language learner students (figure 4). For both algebra I and geometry, the median score of English language learner students was 9 scaled score points lower than that of English language learner students, and more than 75 percent of English language learner students scored below the 50th percentile of non–English language learner students.

How does the distribution of English language learner students across performance categories on the U-PASS English language arts and mathematics assessments compare with that of non–English language learner students? The percentages of English language learner students who scored 3 or 4 (the highest two scores) on the U-PASS English language arts assessment were lower than the

FIGURE 4

Distribution of scaled scores on the Utah Performance Assessment System for Students mathematics assessments, by mathematics course and English language learner status, 2008/09



*Note*: Counts are greater for geometry because most grade 10 and 11 non–English language learner students taking mathematics have already taken algebra I. The scale score ranges from 130 to 199.

Source: Authors' analysis of student demographic data and Utah Performance Assessment System for Students data from the Utah State Office of Education.

percentages of non–English language learner students who did (figure 5). Among English language learner students, 28 percent in grade 10 and 20 percent in grade 11 scored 3 or 4, while among non–English language learner students, 86 percent in grade 10 and 83 percent in grade 11 did.

The percentages of English language learner students who scored 3 or 4 on the U-PASS mathematics assessments were lower than the percentages of non–English language learner students who did. Some 7 percent of English language learner students who took the algebra I assessment and 15 percent who took the geometry assessment scored 3 or 4, compared with 20 percent of non–English language learner students who took the algebra I assessment and 42 percent who took the geometry assessment (figure 6).

What are the differences in performance between English language learner students and non–English language learner students on the U-PASS English

FIGURE 5 Distribution of scores on the Utah Performance **Assessment System for Students English language** arts assessment, by grade level and English language learner status, 2008/09 (percent) U-PASS score<sup>a</sup> ■ 1a ■ 1b ■ 2a ■ 2b ■ 3 ■ 4 English language 15 12 learner students (N = 1,691)9 Non-English language learner students 31 (N = 34,635)English language learner students (N = 1,284)Non-English language learner students 25 58 (N = 33.553)75 25 50 100 0 Percent a. Higher numbers indicate better performance. Note: Values may not sum to totals because of rounding. Source: Authors' analysis of student demographic data and Utah Performance Assessment System for Students data from the Utah State Office of Education.

language arts and mathematics assessments by content standard? English language learner students scored lower than non–English language learner students on all U-PASS content standards (table 4). The normalized differences were 1.3–1.6 standard deviations on the English language arts standards and 0.4–0.7 standard deviation on the mathematics standards.

The English language arts analyses show consistency across grades, with the results for grades 10 and 11 within 0.1 standard deviation of each other. Across both grades, English language learner students scored 1.6 standard deviations lower on standard I (comprehension), 1.4 standard deviations lower on standard II (writing), and 1.3 standard deviations lower on standard III (inquiry) than non–English language learner students did.

The mathematics analyses show smaller differences between English language learner and non–English language learner students. Across both

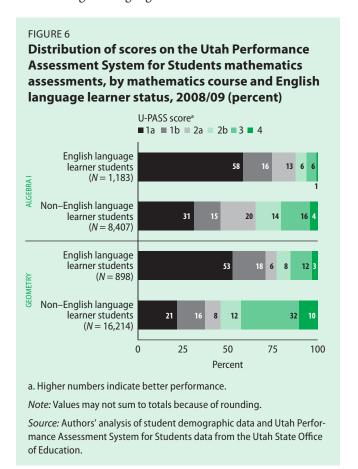


TABLE 4

Difference in average number of correct answers on the U-PASS by content standard and English language learner status, 2008/09

|                                     |                                  |             | Eng<br>language<br>stud            | e learner             | Non–English<br>language learner<br>students |                       |                        |                                       |
|-------------------------------------|----------------------------------|-------------|------------------------------------|-----------------------|---|-----------------------|------------------------|---------------------------------------|
| U-PASS<br>content area<br>and level | Content<br>standard <sup>a</sup> | Total items | Mean score<br>(percent<br>correct) | Standard<br>deviation | Mean score<br>(percent<br>correct)          | Standard<br>deviation | Absolute<br>difference | Normalized<br>difference <sup>b</sup> |
| English langua                      | ge arts                          |             |                                    |                       |   |                       |                        |                                       |
| Grade 10                            | Standard I                       | 42          | 18.8 (44.8)                        | 9.9                   | 32.8 (78.1)                                 | 9.0                   | 14.0                   | 1.6                                   |
|                                     | Standard II                      | 18          | 7.1 (39.5)                         | 4.0                   | 12.7 (70.3)                                 | 4.1                   | 5.5                    | 1.4                                   |
|                                     | Standard III                     | 10          | 4.4 (43.8)                         | 2.6                   | 7.2 (72.3)                                  | 2.2                   | 2.8                    | 1.3                                   |
| Grade 11                            | Standard I                       | 42          | 16.4 (39.0)                        | 9.6                   | 31.7 (75.6)                                 | 9.6                   | 15.4                   | 1.6                                   |
|                                     | Standard II                      | 18          | 7.2 (40.1)                         | 4.3                   | 13.1 (72.8)                                 | 4.2                   | 5.9                    | 1.4                                   |
|                                     | Standard III                     | 10          | 3.9 (39.4)                         | 2.5                   | 7.2 (71.7)                                  | 2.4                   | 3.2                    | 1.3                                   |
| Mathematics                         |                                  |             |                                    |                       |   |                       |                        |                                       |
| Algebra I                           | Standard I                       | 11          | 3.5 (31.5)                         | 2.4                   | 4.6 (42.0)                                  | 2.7                   | 1.1                    | 0.4                                   |
|                                     | Standard II                      | 18          | 4.9 (27.1)                         | 3.3                   | 6.5 (35.8)                                  | 4.1                   | 1.6                    | 0.4                                   |
|                                     | Standard III                     | 30          | 8.0 (26.9)                         | 5.2                   | 10.5 (35.4)                                 | 6.3                   | 2.5                    | 0.4                                   |
|                                     | Standard IV                      | 11          | 4.9 (45.6)                         | 2.8                   | 6.4 (60.0)                                  | 3.2                   | 1.5                    | 0.5                                   |
| Geometry                            | Standard I                       | 33          | 13.8 (41.8)                        | 6.7                   | 18.8 (57.2)                                 | 7.3                   | 5.0                    | 0.7                                   |
|                                     | Standard II                      | 12          | 3.8 (32.1)                         | 2.4                   | 5.0 (41.9)                                  | 2.8                   | 1.2                    | 0.4                                   |
|                                     | Standard III                     | 13          | 4.4 (34.7)                         | 2.8                   | 5.8 (45.1)                                  | 3.2                   | 1.4                    | 0.4                                   |
|                                     | Standard IV                      | 12          | 4.8 (39.8)                         | 2.9                   | 6.5 (54.1)                                  | 3.0                   | 1.7                    | 0.6                                   |

a. See box 2 for a description of each standard.

Note: Of the 2,975 English language learner students who took the U-PASS English language arts assessment in 2008/09, 1,691 were in grade 10 and 1,284 in grade 11; of the 68,188 non–English language learner students who took the U-PASS English language arts assessment in 2008/09, 34,635 were in grade 10 and 33,553 were in grade 11. Of the 2,081 English language learner students who took a U-PASS mathematics assessment in 2008/09, 1,183 took the algebra I assessment and 898 took the geometry assessment; of the 24,621 non–English language learner students who took a U-PASS mathematics assessment in 2008/09, 8,407 took the algebra I assessment and 16,214 took the geometry assessment.

Source: Authors' analysis of student demographic data and Utah Peformance Assessment System for Students data from the Utah State Office of Education.

algebra I and geometry, English language learner students scored at least 0.4 standard deviation lower than non–English language learner students on all content standards. The largest difference, 0.7 standard deviation, was in standard I in geometry (algebraic, spatial, and logical reasoning).

What are the differences in performance on the U-PASS English language arts and mathematics assessments between English language learner students and non-English language learner students by content standard? Because of policymakers' interest in the performance of students

who demonstrate English language proficiency on the UALPA, the analysis of student assessment scores was repeated omitting the scores of English language learner students who scored below advanced on the UALPA—that is, the scores of non–English language learner students were compared only with the scores of English language learner students who scored advanced on the UALPA. Utah State Office of Education staff requested this analysis to explore performance disparities between English language learner students who were demonstrating language proficiency and non–English language learner students.

b. The normalized difference is calculated as the absolute difference divided by the pooled standard deviation of both groups (see box 3).

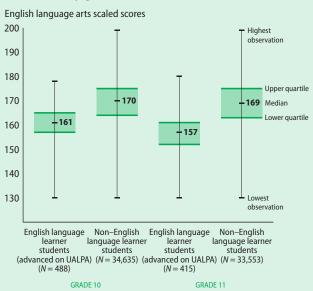
On the U-PASS English language arts assessment, English language learner students who scored advanced on the UALPA scored lower than non–English language learner students (figure 7). The median scaled score for English language learner students who scored advanced on the UALPA was 161 in grade 10 and 157 in grade 11, compared with 170 for non–English language learner students in grade 10 and 169 for those in grade 11. These gaps are smaller than those in the comparison of all English language learner students and non–English language learner students (see figure 3).

Similar results were obtained for mathematics. On the U-PASS algebra I and geometry assessments, English language learner students who scored advanced on the UALPA scored lower than non–English language learner students (figure 8). The median scaled score for English language learner students who scored advanced on the UALPA was 148 in algebra I and 152 in geometry, compared with 152 for non–English language learner students in algebra and 158 for those in geometry. Again, these gaps are smaller than those in the comparison of all English language learner students and non–English language learner students (see figure 4).

The percentages of English language learner students who scored advanced on the UALPA and who scored 3 or 4 (the highest two scores) on the U-PASS English language arts assessment were lower than the percentages of non–English language learner students who scored 3 or 4 on the U-PASS English language arts

### FIGURE 7

Distribution of scaled scores on the Utah Performance Assessment System for Students English language arts assessment among English language learner students who scored advanced on the Utah Academic Language Proficiency Assessment and non-English language learner students, by grade level, 2008/09

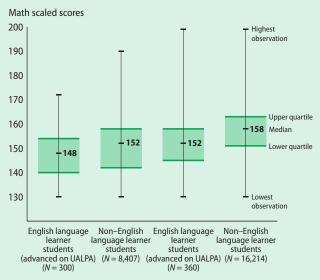


Note: The scale score ranges from 130 to 199.

Source: Authors' analysis of student demographic data and Utah Performance Assessment System for Students data from the Utah State Office of Education.

### FIGURE 8

Distribution of scaled scores on the Utah Performance Assessment System of Students mathematics assessment among English language learner students who scored advanced on the Utah Academic Language Proficiency Assessment and non-English language learner students, by mathematics course, 2008/09



*Note*: Counts are greater for geometry because most grade 10 and 11 non–English language learner students taking mathematics have already taken algebra I. The scale score ranges from 130 to 199.

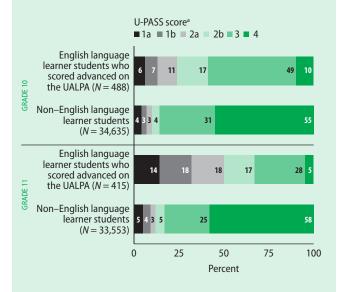
Source: Authors' analysis of student demographic data and Utah Performance Assessment System for Students data from the Utah State Office of Education.

assessment (figure 9). Among English language learner students who scored advanced on the UALPA, 59 percent in grade 10 and 33 percent in grade 11 scored 3 or 4 on the U-PASS English language arts assessment, compared with 86 percent of non–English language learner students in grade 10 and 83 percent in grade 11.

The percentages of English language learner students who scored advanced on the UALPA and scored 3 or 4 on the U-PASS mathematics assessments were lower than the percentages of non–English language learner students who scored 3 or 4 on the U-PASS mathematics examinations (figure 10). But these differences are smaller than those on the English language arts assessment. Of the English language learner students who scored advanced on the UALPA, 12 percent who took

FIGURE 9

Distribution of scores on the Utah Performance Assessment System for Students English language arts assessment among English language learner students who scored advanced on the UALPA and non-English language learner students, by grade level, 2008/09



a. Higher numbers indicate better performance.

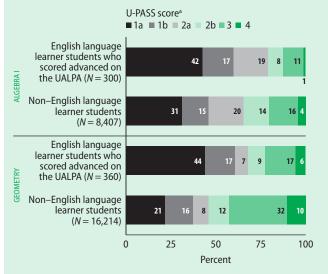
Source: Authors' analysis of Utah Academic Language Proficiency Assessment and Utah Performance Assessment System for Students data from the Utah State Office of Education.

the algebra I assessment and 23 percent who took the geometry assessment scored 3 or 4, compared with 20 percent of non–English language learner students who took the algebra I assessment and 42 percent who took the geometry assessment.

Differences by content standard between the performance of English language learner students who scored advanced on the UALPA and their non–English language learner peers were also compared. At grade 10, the gaps in English language arts performance—0.8 standard deviation in comprehension, 0.8 standard deviation in writing, and 0.6 standard deviation in inquiry—were half as large as those in the analysis that included all English language learner students—1.6 standard deviations in comprehension, 1.4 standard deviations in writing, and 1.3 standard

FIGURE 10

Distribution of scores on the Utah Performance Assessment System for Students mathematics assessments among English language learner students who scored advanced on the Utah Academic Language Proficiency Assessment and non–English language learner students, by mathematics course, 2008/09



a. Higher numbers indicate better performance.

*Note*: Values may not sum to totals because of rounding. Counts are greater for geometry because most grade 10 and 11 non–English language learner students taking mathematics have already taken algebra I.

*Source:* Authors' analysis of Utah Academic Language Proficiency Assessment and Utah Performance Assessment System for Students data from the Utah State Office of Education.

deviations in inquiry (table 5). At grade 11, the gaps—1.2 standard deviations in comprehension, 1.0 standard deviation in writing, and 1.0 standard deviation in inquiry—were about a quarter smaller than those in the analysis that included all English language learner students—1.6 standard deviations in comprehension, 1.4 standard deviations in writing, and 1.3 standard deviations in inquiry. In both analyses, the largest gaps between English language learner and non–English language learner students were in comprehension

(standard I), and the lowest were in the inquiry (standard III).

In mathematics, English language learner students who scored advanced on the UALPA outscored non–English language learner students by 0.2–0.4 standard deviation, depending on the examination and standard. On all four algebra I standards, the difference was 0.2 standard deviation, and on all four geometry standards, the difference was 0.3–0.4 standard deviation.

TABLE 5

Difference in mean correct answers on the Utah Performance Assessment System for Students among English language learner students who scored advanced on the UALPA and non-English language learner students, by content standard and grade level or mathematics course, 2008/09

|                                     |                                  |             | English language learner<br>students who scored<br>advanced on the UALPA |                       | Non–English<br>language learner<br>students |                       |                        |                                       |
|-------------------------------------|----------------------------------|-------------|--|-----------------------|---|-----------------------|------------------------|---------------------------------------|
| U-PASS<br>content area<br>and level | Content<br>standard <sup>a</sup> | Total items | Mean score<br>(percent<br>correct)                                       | Standard<br>deviation | Mean score<br>(percent<br>correct)          | Standard<br>deviation | Absolute<br>difference | Normalized<br>difference <sup>b</sup> |
| English langua                      | ge arts                          |             |  |                       |   |                       |                        |                                       |
|                                     | Standard I                       | 42          | 25.6 (60.9)  | 8.3                   | 32.8 (78.1)                                 | 9.0                   | 7.2                    | 0.8                                   |
| Grade 10                            | Standard II                      | 18          | 9.3 (51.6)   | 3.6                   | 12.7 (70.3)                                 | 4.1                   | 3.4                    | 0.8                                   |
|                                     | Standard III                     | 10          | 5.9 (59.1)   | 2.1                   | 7.2 (72.3)                                  | 2.2                   | 1.3                    | 0.6                                   |
|                                     | Standard I                       | 42          | 20.0 (47.7)  | 9.3                   | 31.7 (75.6)                                 | 9.6                   | 11.7                   | 1.2                                   |
| Grade 11                            | Standard II                      | 18          | 8.8 (48.7)   | 4.1                   | 13.1 (72.8)                                 | 4.2                   | 4.3                    | 1.0                                   |
|                                     | Standard III                     | 10          | 4.8 (47.7)   | 2.3                   | 7.2 (71.7)                                  | 2.4                   | 2.4                    | 1.0                                   |
| Mathematics                         |                                  |             |  |                       |   |                       |                        |                                       |
|                                     | Standard I                       | 11          | 4.2 (38.2)   | 2.4                   | 4.6 (42.0)                                  | 2.7                   | 0.4                    | 0.2                                   |
| Algobral                            | Standard II                      | 18          | 5.8 (31.5)   | 3.7                   | 6.5 (35.8)                                  | 4.1                   | 0.8                    | 0.2                                   |
| Algebra I                           | Standard III                     | 30          | 9.2 (31.2)   | 5.5                   | 10.5 (35.4)                                 | 6.3                   | 1.3                    | 0.2                                   |
|                                     | Standard IV                      | 11          | 5.7 (53.4)   | 2.9                   | 6.4 (60.0)                                  | 3.2                   | 0.7                    | 0.2                                   |
| Geometry                            | Standard I                       | 33          | 15.7 (47.6)  | 6.4                   | 18.8 (57.2)                                 | 7.3                   | 3.1                    | 0.4                                   |
|                                     | Standard II                      | 12          | 4.2 (35.8)   | 2.5                   | 5.0 (41.9)                                  | 2.8                   | 0.8                    | 0.3                                   |
|                                     | Standard III                     | 13          | 4.9 (39.0)   | 2.9                   | 5.8 (45.1)                                  | 3.2                   | 0.8                    | 0.3                                   |
|                                     | Standard IV                      | 12          | 5.4 (45.4)   | 2.9                   | 6.5 (54.1)                                  | 3.0                   | 1.1                    | 0.4                                   |

a. See box 2 for a description of each standard.

Note: Of the 903 English language learner students who scored advanced on the UALPA and who took the U-PASS English language arts assessment in 2008/09, 488 were in grade 10 and 415 were in grade 11; of the 68,188 non–English language learner students who took the U-PASS English language arts assessment in 2008/09, 34,635 were in grade 10 and 33,553 were in grade 11. Of the 660 English language learner students who took a U-PASS mathematics assessment in 2008/09, 300 took the algebra I assessment and 360 took the geometry assessment; of the 24,621 non–English language learner students who took a U-PASS mathematics assessment in 2008/09, 8,407 took the algebra I assessment and 16,214 took the geometry assessment.

Source: Authors' analysis of student demographic data and Utah Peformance Assessment System for Students data from the Utah State Office of Education.

b. The normalized difference is calculated as the absolute difference divided by the pooled standard deviation of both groups (see box 3).

# CONCLUSION

In Utah, roughly 4 percent of students in grades 10 and 11 are designated as English language learner students. All English language learner students in the state take the language proficiency assessment, the UALPA. Recent changes in the requirements for redesignating English language learner students—dropping the minimum score on the U-PASS English language arts assessment by one category, from 3 to 2b—results in more students who score advanced on the UALPA being redesignated as fluent. The analysis of 2008/09 data shows a 29 percent gain at grade 10 and a 51 percent gain at grade 11, compared with the results under the old requirements. English language learner students scored 3 or 4 on the English language arts content assessment and not advanced on the language proficiency assessment in 9 percent of grade 10 cases and 5 percent of grade 11 cases. These figures support the anecdotal reports of this counterintuitive pairing of results.

English language learner students, including those who scored advanced on the UALPA, scored lower than non–English language learner students on the U-PASS overall as well as on each content standard. In English language arts, English language learner students were outscored by non–English language learner students by 1.3–1.6 standard deviations, a pattern that was consistent across grades: in grades 10 and 11, English language

learner students were outscored by non-English language learner students by 1.6 standard deviations on standard I (comprehension), 1.4 standard deviations on standard II (writing), and 1.3 standard deviations on standard III (inquiry). Although neither the

English language learner students, including those who scored advanced on the UALPA, scored lower than non-English language learner students on the U-PASS overall as well as on each content standard

content of the standards nor the items in the standards were reviewed, the magnitude and consistency of the results suggest that such a review by curriculum experts might illuminate specific drivers of the gap in performance between English language learner and non–English language learner students. In mathematics, the differences were smaller, with English language learner students outscored by non–English language learner students by 0.4–0.7 standard deviation.

When only English language learner students who scored advanced on the UALPA are compared to non–English language learner students, the differences by content standard on the U-PASS English language arts exam are halved for grade 10 and reduced by a quarter for grade 11. Differences by content standard on the U-PASS mathematics assessments fall to 0.2–0.4 standard deviation—or about half the differences when all English language learner students are compared with non–English language learner students.

# **REFERENCES**

- Skorupski, W. P. (2008). A review and empirical comparison of approaches for improving the reliability of objective level scores. Washington, DC: Council of Chief State School Officers.
- U.S. Department of Education, National Center for Education Statistics. (2009). Common Core of Data. Local Education Agency Universe Survey: School Year 2007–08. Retrieved January 26, 2009, from http://nces.ed.gov/ccd/bat/index.asp.
- Utah Department of Administrative Services, Division of Administrative Rules. (n.d.). *Utah Administrative Code*.

- Retrieved April 15, 2010, from http://www.rules.utah.gov/publicat/code/r277/r277-716.htm#E1.
- Utah State Office of Education. (2007). *English Language Learner Proficiency Standards*. Retrieved April 15, 2010, from http://www.uen.org/core/englishlanguage/downloads/3-6Standards.pdf.
- Utah State Office of Education. (2009). *Utah Academic Language Proficiency Assessment 2008–2009 Coordinator's Guide*. Retrieved March 19, 2009, from http://www.schools.utah.gov/assessment/documents/UALPA\_Test\_Coordinator\_Guide\_2009.pdf.