

Renewal Information
Locally Developed/Managed Test:
ESL Grammar Test

Introduction

The ESL Grammar Test is used to place students into the five levels of the ESL curriculum. The course numbers are ESL 101, ESL 102, ESL 103, ESL 104, and ESL 105. ESL 101 is the level 1 course; ESL 102 is the level 2 course; ESL 103 is the level 3 course, ESL 104 is the level 4 course, and ESL 105 is the level 5 course, one level below English 101 (i.e., Freshman Composition). The placement system for ESL relies on three different multiple measures: (1) the ESL Grammar test, (2) the student's high school GPA, and (3) a written essay score.

Validity

Content Validation

Content-related validity was an important component of the test's initial development. The ESL Grammar Test was developed by ESL faculty to match the entry skills of the ESL courses. It consists of 40 multiple-choice items. The first 10 items measure level one skills (i.e., skills taught at level one of the ESL curricula, which also serve as entrance expectations for level two); the second 10 items measure level two skills; the third 10 items measure level three skills; and the fourth 10 items measure level four skills. Thus, the test is directly tied to the ESL curriculum.

An alignment study was conducted during the spring 2021 semester to address content validation. Four full-time members of the Credit ESL faculty free from conflict of interest participated in the study. Table 1 shows the results of the content-related validity study. The faculty members were asked to rate each ESL grammar test item to indicate if the item measures the skill prerequisites for each ESL course. Each faculty member was asked to independently conduct their review and enter a Y if

the item measures the skill prerequisites for an ESL course and N if the item does not.

Table 1 contains the individual items as the rows and the prerequisite skill for each course as the columns. As can be seen in the table, each item is aligned with prerequisite skills in at least one ESL course. A "No" in the table indicates that at least three of the four faculty members agreed the item did not measure the prerequisite skill for the course. A "Yes" in the table indicates that at least three of the four faculty members agreed the item does measure the prerequisite skill for the course. In addition, a "?" indicates that the faculty is undecided (i.e., two say Yes; two say No). At the bottom of the table, the total number of "Yes" responses is totaled for each ESL level. The number of "Yes" responses for the column totals ranges from 9 to 36 items.

Table 1

Faculty Judgments of ESL Grammar Test Items with Course Prerequisite Skills

Test Item	ESL 101	ESL 102	ESL 103	ESL 104	ESL 105	Yes/?/No
1	Yes	Yes	Yes	Yes	Yes	
2	Yes	Yes	Yes	Yes	Yes	
3	Yes	Yes	Yes	Yes	Yes	
4	Yes	Yes	Yes	Yes	Yes	
5	Yes	Yes	Yes	Yes	Yes	
6	No	No	Yes	Yes	Yes	
7	No	No	No	Yes	Yes	
8	Yes	Yes	Yes	Yes	Yes	
9	No	Yes	Yes	Yes	Yes	
10	No	Yes	Yes	Yes	Yes	

11	No	Yes	Yes	Yes	Yes	
12	Yes	Yes	Yes	Yes	Yes	
13	No	No	Yes	Yes	?	?
14	No	No	Yes	Yes	Yes	
15	No	Yes	Yes	Yes	Yes	
16	No	Yes	Yes	Yes	Yes	
17	Yes	Yes	Yes	Yes	Yes	
18	Yes	Yes	Yes	?	?	?
19	No	Yes	Yes	Yes	Yes	
20	No	No	Yes	Yes	Yes	
21	No	No	Yes	Yes	Yes	
22	No	No	No	Yes	Yes	
23	No	No	No	Yes	Yes	
24	No	No	No	Yes	Yes	
25	No	No	No	Yes	Yes	
26	No	No	Yes	Yes	Yes	
27	No	No	No	Yes	Yes	
28	No	No	No	No	Yes	
29	No	No	Yes	Yes	Yes	
30	No	No	Yes	Yes	Yes	
31	No	No	No	Yes	Yes	
32	No	No	No	Yes	Yes	

33	No	Yes	Yes	Yes	?	?
34	No	No	No	No	Yes	
35	No	No	No	Yes	Yes	
36	No	No	No	Yes	Yes	
37	No	No	Yes	Yes	Yes	
38	No	No	Yes	Yes	?	?
39	No	No	No	No	Yes	
40	No	No	No	Yes	Yes	
Total	9	16	25	36	36	4

Criterion Validation

A criterion validity study was conducted during the spring 2021 semester. Instructors were asked to judge the accuracy of student placement into the ESL courses. Table 2a shows faculty judgments of placement accuracy by ESL level. The instructors were asked whether each student in their ESL course was prepared for the level of work in the course. The rating scale is as follows: 1 = the student is under-prepared, 2 = the student is adequately- prepared, and 3 = the student is over-prepared. Overall, the faculty judgments ranged from 79% to 83%. The overall average agreement rating is 81% indicating the students agree with their placement into the ESL sequence. ESL 101 had a lower aggregate adequately-prepared percentage than the other sections and a higher over-prepared percentage indicated that at least 21% of students should have been placed in a higher-level course.

Table 2a

Faculty Judgments of Placement Accuracy ESL Grammar Test

Course	Level	Over-prepared	Adequately prepared	Under-prepared	Number of students
ESL101	1	21%	79%	0%	107
ESL102	2	12%	81%	7%	124
ESL103	3	9%	83%	8%	145
ESL104	4	8%	83%	9%	135
ESL105	5	12%	80%	8%	158

There is a plan to conduct another criterion validation study in the Fall of 2023. Students taking the ESL grammar test in the Fall of 2023 will also complete the ACCUPLACER ESL Language Use test at no cost to them. The ESL Language Use test is a 20-item multiple-choice and fill-in-the-blank test that assesses knowledge of English grammar, usage, and punctuation. While the ESL Language Use tests knowledge other than grammar, grammar is a major component assessed by this test. Additionally, the ESL Language Use is developed and maintained by The College Board, and is used as a component of ESL placement in many colleges.

The study sample is expected to be similar to that seen in other validation studies. Specifically, it is expected that, roughly: 70% of the sample will identify as white, 15% will identify as Asian, 1% or less will identify as African American, 8-10% will identify as Hispanic, 1% or less will identify as Filipino, and 4-5% will identify as Other. The responses to both the ESL Grammar test and the ESL Language Use test will be collected from the students at the same time.

Once collected, the ESL Grammar test and the ESL Language Use test will be scored. The scaled ESL Language Use scores (ranging from 20 to 120) will be correlated with scores on the ESL Grammar test. Descriptive statistics will be provided overall and for each demographic group when possible. Pearson's correlation coefficient will be calculated between scores on both tests. If the correlation coefficient is .35 or larger then no further action will be taken. If the correlation coefficient is less than .35, then the ESL Grammar test will be examined for issues related to validity.

Consequential Validation

The spring 2018 ESL cohort was analyzed in the spring of 2021 for evidence of consequential validity. The spring 2018 ESL cohort consisted of 566 students who all completed the ESL Grammar Test. Of these 562 students, 94% ($n = 521$) enrolled in the ESL course that was suggested by their placement tests. Table 2c provides the Percentage of these 521 students that completed transfer-level composition within three years. In aggregate, 85% of students placed by the placement test achieved transfer-level composition within the three-year time frame. This provides evidence for the consequential validity of the ESL Grammar Placement Test scores.

Table 2c*Percentage of Students Completing Transfer-Level Composition from Spring 2018 Cohort*

Enrolled Course	Number of Students	Percent Completing Transfer-level Composition in 3 Years
ESL 101	146	70%
ESL 102	97	78%
ESL 103	136	92%
ESL 104	84	89%
ESL 105	58	98%

Fairness

The test instrument and the placement procedure have not changed since the initial validation of the ESL Grammar Test. In addition, the demographic characteristics of the student population have not changed substantially since 2014, when the test was first submitted for approval, or since 2016, when the ESL Grammar Test received full approval status. Table 3a shows the ethnicity distribution of credit students during the fall 2017 through fall 2020 semesters. Additionally, Table 3b shows the distribution of gender during the fall 2017 through fall 2020 semesters.

Table 3a*Ethnicity of Credit Students, Fall Semesters 2017-2020*

Ethnicity	Fall 2017	Fall 2018	Fall 2019	Fall 2020
White/Non-Hispanic	48%	48%	50%	45%
Hispanic	24%	23%	23%	22%
Asian	10%	10%	9%	8%
Filipino	5%	5%	4%	4%
African-American	3%	3%	3%	3%

American Indian	0%	0%	0%	0%
Other	5%	5%	5%	4%
Unreported	4%	4%	6%	14%

Table 3b

Gender of Credit Students, Fall Semesters 2017-2020

Gender	Fall 2017	Fall 2018	Fall 2019	Fall 2020
Male	42%	43%	44%	44%
Female	58%	57%	56%	56%

Fairness Panel

A fairness study was conducted with a group of 16 ESL students enrolled in English composition but had previously been enrolled in one or more courses in the ESL sequence. The ESL coordinator met with the student to explain the meaning of bias and offensiveness and the reason their review of the ESL grammar test was needed. The students were asked to review each of the 40 test items and asked to enter into a rating sheet for each item a “Yes” if they found the item biased and a “No” if they did not find the item biased. The “yes” response was assigned a 1 and the “No” responses were assigned a 2. The ESL student population attending the college consists of 51.5% females and 47.9% males so we asked nine females and four males to participate in the review. The ethnic background of students enrolled at the college consists of 23.6% Asian and 46.6% Hispanic so we selected students from these two ethnic groups to participate in the study. The age of students enrolled at the college is 28.8% are 20 years old or younger and 47.7% are 20-24 years old, so students were selected from these two age groups.

Results: The mean (average) rating for the entire test was 1.94 with a standard deviation of 0.17 that overall the ESL grammar test items were not rated as biased or offensive by the 16 study participants. All 40 items had a mean over 1.5 and no items were rated below this range (see table below).

Item by Item Analysis for ESL Grammar Test

Item	N	Minimum	Maximum	Mean	Std. Deviation
Q1	16	2	2	2.00	0.00
Q2	16	2	2	2.00	0.00
Q3	16	2	2	2.00	0.00
Q4	16	1	2	1.94	0.25
Q5	16	2	2	2.00	0.00
Q6	16	1	2	1.88	0.34
Q7	16	2	2	2.00	0.00
Q8	16	1	2	1.94	0.25
Q9	16	2	2	2.00	0.00
Q10	16	1	2	1.94	0.25
Q11	16	2	2	2.00	0.00
Q12	16	1	2	1.94	0.25
Q13	16	2	2	2.00	0.00
Q14	16	2	2	2.00	0.00
Q15	16	1	2	1.94	0.25
Q16	16	1	2	1.88	0.34
Q17	16	1	2	1.94	0.25
Q18	16	2	2	2.00	0.00
Q19	16	2	2	2.00	0.00
Q20	16	1	2	1.88	0.34
Q21	16	2	2	2.00	0.00
Q22	16	1	2	1.88	0.34
Q23	16	1	2	1.94	0.25
Q24	16	1	2	1.94	0.25
Q25	16	1	2	1.94	0.25
Q26	16	2	2	2.00	0.00
Q27	16	2	2	2.00	0.00
Q28	16	2	2	2.00	0.00
Q29	16	1	2	1.94	0.25
Q30	16	1	2	1.94	0.25
Q31	16	1	2	1.94	0.25

Q32	16	1	2	1.94	0.25
Q33	16	2	2	2.00	0.00
Q34	16	1	2	1.94	0.25
Q35	16	2	2	2.00	0.00
Q36	16	1	2	1.94	0.25
Q37	16	1	2	1.94	0.25
Q38	16	1	2	1.94	0.25
Q39	16	1	2	1.88	0.34
Q40	16	2	2	2.00	0.00

Empirical Fairness Study

A disproportionate impact study was conducted in the spring 2021 semester. The sample includes 2,127 students who took the ESL Grammar test and were enrolled into the course indicated by the placement process within the past two academic years. Recall that the ESL Grammar test is not used to place students alone, though it is a major component of the placement decision. The evidence examined includes: placement by gender and ethnicity. Following procedures and recommendations in [Guidelines for Measuring Disproportionate Impact in Equity Plans](#), the 80% Index is applied as a measure of disproportionate impact.

Placement into the ESL curriculum is broken up into the four credit ESL levels. The lowest level represents students placing into ESL 101. The second level represents those students who placed into ESL 102. The third level represents those students who placed into ESL 103. The fourth and fifth levels represent ESL 104 and ESL 105, respectively.

Table 5a shows ESL curriculum placement level by gender. The bottom row shows the ratio of female to male placement. Values below 0.8 indicate disproportionate impact of the non-reference group (females). As can be seen in the table, placement in courses except ESL 102 meet the 80% criteria. Since the placement rate for females in ESL 102 was borderline (.79) and because the fairness panel in 2021 found no evidence of gender bias, no steps will be taken at this time. However, the placement rate of females in ESL 102 will be closely monitored for potential bias.

Table 5a*ESL Placement by Gender*

	ESL 101	ESL 102	ESL 103	ESL 104	ESL 105	Total
Female	489	298	238	155	12	1192
Male	374	315	163	134	10	995
Placement Rate - Female	0.41	0.25	0.2	0.13	0.01	1
Placement Rate - Male	0.38	0.32	0.16	0.13	0.01	1
Female-Male Ratio*	1.09	0.79	1.22	0.96	1.05	

* Ratios of 0.8 or less indicate disproportionate impact.

Table 5b shows ESL curriculum placement level by ethnic group. The bottom row shows the ratio of the minority ethnic group placement rate to the placement rate of Whites. Values below 0.8 indicate disproportionate impact of the non-reference group. As can be seen in the table, most ethnic groups meet the 80% criterion in every ESL level. However, white students appear to get placed into low ESL courses more often than other ethnic groups. It should also be noted that results for the African American and Filipino ethnic groups should be viewed and interpreted with caution, as the groups had less than 30 students in the study.

Table 5b*ESL Placement by Ethnic Group*

	ESL 101	ESL 102	ESL 103	ESL 104	ESL 105	Total
White	493	354	378	227	60	1512
Asian	13	53	63	115	82	326
African American (AA)	4	3	3	3	2	15
Hispanic	50	32	46	29	20	177
Filipino	0	0	0	4	4	8
Other	20	25	20	17	7	89
Placement Rate - White	0.33	0.23	0.25	0.15	0.04	1.00
Placement Rate - Asian	0.04	0.16	0.19	0.35	0.25	1.00
Placement Rate - AA	0.27	0.20	0.20	0.20	0.13	1.00
Placement Rate - Hispanic	0.28	0.18	0.26	0.16	0.11	1.00
Placement Rate - Filipino	0.00	0.00	0.00	0.50	0.50	1.00
Placement Rate - Other	0.22	0.28	0.22	0.19	0.08	1.00
Asian-White Ratio*	0.12	0.69	0.77	2.35	6.34	
AA-White Ratio*	0.82	0.85	0.80	1.33	3.36	
Hispanic-White Ratio*	0.87	0.77	1.04	1.09	2.85	
Filipino-White Ratio*	0.00	0.00	0.00	3.33	12.60	
Other-White Ratio*	0.69	1.20	0.90	1.27	1.98	

* Ratios of 0.8 or less indicate disproportionate impact.

While there is evidence for potential disproportionate impact, since the fairness studies did not reveal any test bias, no action will be taken at this point. However, these placement rates will continue to be monitored closely.

Reliability

Internal Consistency

An internal consistency reliability study was conducted during the spring 2021 semester. A total of 100 ESL Grammar tests were examined for the study. The split

halves approach was used to determine the reliability coefficient. After correcting for a full test reliability (i.e., Spearman-Brown formula), the ESL Grammar Test showed a high correlation, $r = 0.84$. This correlation is statistically significant at the $p < .05$ level, and it exceeds the Chancellor's Office standard of 0.75. Thus, indicating the ESL Grammar Test is a reliable test instrument.

Stability

A test-retest reliability study was conducted in the spring 2021 semester with 32 ESL student volunteers. These volunteers had already been placed within the ESL curriculum, so this study did not violate any test security. Early in spring 2021, the student volunteers were asked to complete the ESL Grammar test. Exactly two months later, the students were asked to complete the ESL Grammar test again, and the student scores were compared. The correlation between the initial administration and the later administration was high ($r = .73$). While this is slightly lower than the criteria prescribed in the Standards, the length of time, the volunteer nature of the sample, the small sample size, and the length of time between administrations may have had an impact on the results.

Standard Errors of Measurement

The test instrument and procedures have not changed since the original validation study, so evidence from the original study is presented here. Based on the test-retest reliability study, the standard error for the ESL Grammar Test was 3.78.

Administration and Scoring

The test procedure has remained the same since the original implementation of the ESL placement procedure, so information from the original submission is presented in the following

section.

Faculty members from the English Department volunteer to proctor the examination. While these faculty members receive no special training, they are familiar with administering tests in their taught courses. The test is generally administered in a paper-and-pencil format, unless a test accommodation requires otherwise. In the case of a computer-based test accommodation, a trained staff member from CRCC Accommodations takes over administration of the exam. Students are given a generous four hours to complete the 40-item Grammar Placement Test. This time limit is imposed to give students plenty of time to complete the exam, but also to limit any undue burden on the volunteer proctors.

The test is generally administered on Saturday mornings, with several administration dates offered to students. Since these administrations occur on a Saturday, disruptions are not expected, however, the faculty proctors are instructed to address any disruptions using their best judgement and to resume testing as soon as possible.

Setting Cut Scores

The first step in setting cut scores was to have the faculty panel discuss the relevant course entry-level skills and expectations for each ESL course. Faculty will utilize these skills to discuss performance level definitions (PLDs) of a minimally qualified student for each course.

The second step was to ask the faculty panel to think of a student that barely achieves the PLD for each course level and then independently determine if a minimally qualified student at each course level could answer the item correctly.

The third step was to have the faculty panel collectively discuss their individual ratings for each item allowing them to revise their decisions.

The last step involves calculating the sum of item difficulty for each course. This total will be recorded at the bottom of each course level and will represent the minimum cut score. The appropriate score range for each course level will also be provided for each course level. The faculty panel complete the process by discussing this final outcome and then were asked how confident they were in those final cut scores decisions.

Based on this process, the initial cut scores were: scores of 0-8 were placed in ESL 101; scores of 9-18 were placed in ESL 102; scores of 17-25 were place in ESL 103; scores of 25-32 were place in ESL 104; and scores of 33-40 were placed in ESL 105.

In Spring 2018, consequential- and criterion-validation studies were conducted. While the results of both of these studies supported the overall validity of the cut scores, the cut scores for ESL 101 showed lower consequential validity in terms of students completing transfer-level composition within 3 years and lower faculty agreement rate that students were placed in the correct course. Additionally, the ESL 101 faculty in the criterion validation indicated that all of their misplaced students should have been placed in a higher-level course (i.e., that their students were overprepared).

Based on the above evidence, a panel of 20 faculty ESL content experts was convened to discuss the cut scores in Fall 2019. These revisions were unanimously accepted and approved by all 20 ESL content expert panel members.

While no follow-up validity studies have been conducted at this time, new consequential- and criterion-validation studies are being planned for Spring 2023. The validity of these new cut scores will be assessed once the new validity studies are completed.

Accommodations

There have been no changes in our accommodation process and procedure since the last

time the test achieved Full Approval. Since 2014, 847 accommodations have been administered: 227 distraction-free rooms, 120 Braille or large print exams, 250 extended time exams, 50 wheelchair-accessible testing stations, 20 physical prompts, 50 exams with screen reading technology, 20 exams with scribes, and 110 exams with students permitted to bring and take medication. For more information about the step taken to provide test accommodations and our commitment to accessibility, please contact our director of accommodations Fulano de Tal at FTal_01@XYZ.edu.