

Validity Study of the College Level Examination Program (CLEP) Test for Credit in Spanish 506, 507, 508K, 312K, and 312L Fall 2003

Introduction

Purpose

At the request of the Department of Spanish and Portuguese, the Measurement and Evaluation Center, a component of the Division of Instructional Innovation and Assessment, conducted a validity study to assist the department in determining decision scores for the award of credit by examination for Spanish 506, 507, 508K, 312K and 312L. UT Austin policy requires that score ranges used as the basis for the award of credit by examination shall reflect the same standard of performance for students who receive credit by examination as for students who complete the coursework.

Course Descriptions

Spanish (SPN) 506, First-Year Spanish I, is a five-credit introductory course in a sequence of four undergraduate introductory Spanish courses. SPN 507, First-Year Spanish II, is a five-credit second semester Spanish course. Students take SPN 506 and 507 to complete a two-semester study of Spanish language. If students earn credit-by-examination for SPN 506, they must enroll in SPN 508K, Alternate First-Year Spanish II. The second year of Spanish language study consists of two three-credit courses, SPN 312K and 312L, Second-Year Spanish I and II, respectively. Students take SPN 312K and 312L to complete a four-semester study of Spanish language.

Method

Participants

A total of 389 undergraduate students enrolled during fall 2003 in SPN 506, 507, 508K, 312K, or 312L, took the CLEP Spanish at the end of the semester. Four sections of each course were included in the study. Two students were not included in the study because of incomplete data and one was removed as an outlier.

Materials

Test Description

The College Level Examination Program, developed by The College Board, provides students the opportunity to demonstrate college-level achievement through a program of exams in undergraduate college courses. The College Board describes the purpose and content of the CLEP Spanish test as follows:

The Spanish Language examination is designed to measure knowledge and ability equivalent to that of students who have completed two to four semesters of college Spanish language study. The exam focuses on skills typically achieved from the end of the first year through the second year of college study; material taught during both years is incorporated into a single exam.

The exam contains 120 questions to be answered in 90 minutes. There are two Listening sections and one Reading section. Each section has its own timing requirements. The three sections are weighted so that each question contributes equally to the total score.

- The two Listening sections together are about 30 minutes in length. The amount of time candidates have to answer a question varies according to the section and does not include the time they spend listening to the test material (40% of the total exam time).
- The Reading section is 60 minutes in length (60% of the total exam time). (*CLEP Exam Descriptions, Spanish Language, 2003.*)
- Scores are reported on a 20-80 scale.

Procedure

Examination Process

Students enrolled in SPN 506, 507, or 508K in fall 2003 took the CLEP Spanish test as preparation for their final exam in the course and as part of their class participation grade. Students enrolled in SPN 312K in fall 2003 had the option to use the CLEP Spanish test in lieu of their final examination. Students enrolled in SPN 312L in fall 2003 took the CLEP Spanish test as one component of their final examination. The Measurement and Evaluation Center staff administered the test via computer in two secured labs. Students were given a six-day period during the last week of classes in which to schedule and complete the test.

Validation Process

Concurrent validity evidence in the form of preliminary course grades, which included all course grades up to but not including the CLEP Spanish test, was collected prior to the administration of the CLEP test. Grades were on a scale of 0 to 4, with 0 = *F*, 1 = *D*, 2 = *C*, 3 = *B*, and 4 = *A*. Correlation and regression analyses were conducted to examine the relationship between preliminary course grades and scores on the SPN 506, 507, 508K, 312K, or 312L test.

Reliability and SEM

An internal consistency measure of reliability, Cronbach alpha, was obtained by The College Board for the CLEP Spanish test ($r = 0.91$) (The College Board, 2003). The standard error of measurement (SEM) for each Spanish course was calculated to yield another measure of reliability. The SEM indicates the amount of error to allow for when interpreting individual test results, and is derived from the reliability coefficient using the formula

$$SEM = s\sqrt{1 - r_n}$$

where s = standard deviation and r_n = reliability coefficient.

Analyses

Summary Statistics

Descriptive statistics for each of the five Spanish courses are shown in Table 1. Refer to Appendix A for grade distributions of students who did and did not to take the CLEP Spanish test.

Table 1. Descriptive Statistics on Student Performance in Spanish 506, 507, 508K, 312K, 312L on the College Level Examination Program (CLEP) Spanish Test

	SPANISH	506	507	508K	312K	312L
Total Sample Size for Course (N)		75	83	69	85 ¹	77
Mean and Standard Deviation for CLEP Spanish		40.93 5.53	48.12 8.31	49.75 8.29	51.95 8.35	57.29 7.75
Minimum CLEP Spanish Score		32	30	35	38	41
Maximum CLEP Spanish Score		60	71	76	72	74
Correlation Between CLEP Spanish Score and Preliminary Grade (r)		0.40	0.61	0.51	0.44	0.46
Standard Error of Measurement		1.7	2.5	2.5	2.5	2.3

¹ CLEP score of 20 removed from data set as outlier.

Decision Score Determination

Summary of Decision Score Studies

In addition to the current study, MEC conducted decision score studies for the CLEP Spanish test in 1976 and 1981. Additionally, The College Board conducted validation studies to provide guidelines for setting minimum decision scores for awarding credit. The summary of the recommendations from these studies is shown in Table 2. Comparison of student performance on the CLEP Spanish test in the 1976, 1981, and 2003 studies is shown in Table 3. Refer to Appendices B - J for information related to how the MEC 2003 recommendations were made for each course. Refer to Appendices L – N for information on how The College Board guidelines were constructed.

Table 2. Comparison of UT Austin Recommendations for Credit on the CLEP Spanish Language Test from MEC Studies Conducted in 1976, 1981 and 2003 and The College Board (TCB) Recommendations from 2003

Credit Awarded	1976	1981²	2003	TCB 2003
506, <i>A</i>	51-80		43-80	
506, <i>B</i>	46-50		40-42	
506, <i>C</i>	41-45 ³		37-39	
506, <i>CR</i> only	41-80 ³	34 – 80	37-80	
507/508K, <i>A</i>	59-80		54-80	
507/508K, <i>B</i>	54-58		49-53	55-80
507/508K, <i>C</i>	49-53		43-48	50-54
507/508K, <i>CR</i> only	49-80	42 – 80	43-80	50-80 (2 sem. CR)
312K, <i>A</i>	67-80		57-80	
312K, <i>B</i>	61-66		51-56	
312K, <i>C</i>	56-60		46-50	
312K, <i>CR</i> only	56-80	47 – 80	46-80	
312L, <i>A</i>	71-80		61-80	
312L, <i>B</i>	66-70		57-60	68-80
312L, <i>C</i>	61-65		54-56	66-67
312L, <i>CR</i> only	61-80	50 – 80	54-80	66-80 (4 sem. CR)

² The CLEP cut scores identified in the 1976 studied were adopted by the Spanish and Portuguese department. The 1976 scores were retained after the 1981 study and no changes were made based on this later study.

³ The minimum score to receive credit in Spanish 506 (*CR*) was raised to 43 in the 1987-1988 academic year and remained as the policy until UT Austin discontinued using the CLEP Spanish test in May 1996.

Table 3. Comparison of Student Performance on the CLEP Spanish Language Test from MEC Studies Conducted in 1976, 1981 and 2003

Mean CLEP Score (Standard Deviation) Sample Size	1976	1981	2003
SPN 506	41 (7) N = 92	37 (6) N = 625	41 (6) N = 75
SPN 507	45 (6) N = 103	45 (7) N = 370	48 (8) N = 83
SPN 508K	46 (6) N = 68	47 (8) N = 338	50 (8) N = 69
SPN 312K	51 (7) N = 81	51 (8) N = 932 ⁴	52 (8) N = 85
SPN 312L	55 (8) N = 78	53 (8) N = 408	57 (8) N = 77

⁴Data collected during two semesters (Spring 1981 and Fall 1981)

Impact of MEC Recommendations on Number of Students Awarded Credit

If the above recommendations from the MEC 2003 study are adopted, the number of students who would have been eligible for credit from SPN 506, 507, 508K, 312K, and 312L are shown in Table 4. The *A*, *B* and *C* credit decisions refer to awarding letter grade credit based on the CLEP Spanish test results. The *Credit Only* decision refers to awarding credit or no credit based on the CLEP Spanish test results.

Table 4. Number and Percentage of Students That Would be Eligible for A, B, C, or Credit Only under the proposed Cut Scores

SPANISH Credit Awarded	506	507	508K	312K	312L
A	24 32%	20 24%	18 26%	27 32%	24 31%
B	15 20%	21 25%	16 23%	20 24%	16 21%
C	21 28%	21 25%	23 33%	14 16%	17 22%
Credit Only	60 80%	62 75%	57 83%	61 72%	57 74%
No Credit	15 20%	21 25%	12 17%	24 28%	20 26%
TOTAL	75 100%	83 100%	69 100%	85 100%	77 100%

References

CLEP exam descriptions: Spanish language. Retrieved December 15, 2003 from The College Board Web site: http://www.collegeboard.com/student/testing/clep/ex_cls.html

The College Board. (2003). *Test information guide, College-level Examination Program: Spanish language.* The College Entrance Examination Board, p. 21.

Appendix A

Frequency Table of Grades for Those Students Who Did Take the CLEP Spanish Test and For Whom Preliminary Grade Information Was Available

SPANISH	506	507	508K	312K	312L
Preliminary Grade					
A	31	28	26	29	31
B	36	29	27	44	28
C	7	19	15	12	14
D	1	7	1	1	4
F	0	0	0	0	0
Total	75	83	69	86	77
Mean Grade Point Average	3.29	2.94	3.13	3.17	3.12

Frequency Table of Grades for Those Students Who Did Not Take the CLEP Spanish Test and For Whom Preliminary Grade Information Was Available

SPANISH	506	507	508K	312K	312L
Preliminary Grade					
A	8	1	11	3	1
B	4	1	5	4	5
C	1	1	0	3	0
D	2	1	1	0	0
F	1	1	3	1	0
Total	16	5	20	11	6
Mean Grade Point Average	3.00	2.00	3.00	2.73	3.17

Appendix B

End of Course Scores on the College Level Examination Program (CLEP) Spanish Test in
 Relation to Student Performance in Spanish 506: Scores Suggested by Six Guidelines for Use in
 Selecting Decision Scores
 Fall 2003
 N = 75

Guideline	CLEP Spanish Test Score
1. Expected Score for students whose performance in course was just minimally satisfactory (i.e., students with preliminary grades of C)	37
2. Score for which Expected Grade was just minimally satisfactory (i.e., C)	33
3. Score for which percents of errors of students in each academic performance category (Unsatisfactory, Satisfactory) were most nearly equal.	44
4. Score for which overall percents of errors were most nearly equal.	33
5. Score that would have cut off (or held back) approximately the same number of students as were in the Unsatisfactory performance group.	44
6. Score that would have maximized overall accuracy of placement.	32

Appendix C

End of Course Scores on the College Level Examination Program (CLEP) Spanish Test in
 Relation to Student Performance in Spanish 507: Scores Suggested by Six Guidelines for Use in
 Selecting Decision Scores
 Fall 2003
 N = 83

Guideline	CLEP Spanish Test Score
1. Expected Score for students whose performance in course was just minimally satisfactory (i.e., students with preliminary grades of C)	43
2. Score for which Expected Grade was just minimally satisfactory (i.e., C)	34
3. Score for which percents of errors of students in each academic performance category (Unsatisfactory, Satisfactory) were most nearly equal.	45
4. Score for which overall percents of errors were most nearly equal.	37
5. Score that would have cut off (or held back) approximately the same number of students as were in the Unsatisfactory performance group.	30
6. Score that would have maximized overall accuracy of placement.	34

Appendix D

End of Course Scores on the College Level Examination Program (CLEP) Spanish Test in Relation to Student Performance in Spanish 508K: Scores Suggested by Six Guidelines for Use in Selecting Decision Scores
 Fall 2003
 N = 69

Guideline	CLEP Spanish Test Score
1. Expected Score for students whose performance in course was just minimally satisfactory (i.e., students with preliminary grades of C)	44
2. Score for which Expected Grade was just minimally satisfactory (i.e., C)	36
3. Score for which percents of errors of students in each academic performance category (Unsatisfactory, Satisfactory) were most nearly equal.	40
4. Score for which overall percents of errors were most nearly equal.	36
5. Score that would have cut off (or held back) approximately the same number of students as were in the Unsatisfactory performance group.	39
6. Score that would have maximized overall accuracy of placement.	35

Appendix E

End of Course Scores on the College Level Examination Program (CLEP) Spanish Test in Relation to Student Performance in Spanish 312K: Scores Suggested by Six Guidelines for Use in Selecting Decision Scores
 Fall 2003
 N = 85⁵

Guideline	CLEP Spanish Test Score
1. Expected Score for students whose performance in course was just minimally satisfactory (i.e., students with preliminary grades of C)	46
2. Score for which Expected Grade was just minimally satisfactory (i.e., C)	39
3. Score for which percents of errors of students in each academic performance category (Unsatisfactory, Satisfactory) were most nearly equal.	49
4. Score for which overall percents of errors were most nearly equal.	39
5. Score that would have cut off (or held back) approximately the same number of students as were in the Unsatisfactory performance group.	48
6. Score that would have maximized overall accuracy of placement.	38

⁵ One student was removed from the data set as it was determined the student's CLEP Spanish test score of 20 (approximately 3 out of 120 questions correct) was an outlier.

Appendix F

End of Course Scores on the College Level Examination Program (CLEP) Spanish Test in
 Relation to Student Performance in Spanish 312L: Scores Suggested by Six Guidelines for Use
 in Selecting Decision Scores
 Fall 2003
 N = 77

Guideline	CLEP Spanish Test Score
1. Expected Score for students whose performance in course was just minimally satisfactory (i.e., students with preliminary grades of C)	53
2. Score for which Expected Grade was just minimally satisfactory (i.e., C)	45
3. Score for which percents of errors of students in each academic performance category (Unsatisfactory, Satisfactory) were most nearly equal.	53
4. Score for which overall percents of errors were most nearly equal.	46
5. Score that would have cut off (or held back) approximately the same number of students as were in the Unsatisfactory performance group.	48
6. Score that would have maximized overall accuracy of placement.	41

Appendix G

End of Course Scores on the College Level Examination Program (CLEP) Spanish Test in Relation to Student Performance in Spanish 506, 507, 508K, 312K, 312L: Scores Suggested by Expected Score Guideline for Use in Selecting Decision Scores

SPANISH	506	507	508K	312K	312L
Expected Score for students whose performance in course was just minimally satisfactory (i.e., students with preliminary grades of C)	37	43	44	46	53
Expected Score for students whose performance in course was above average satisfactory (i.e., students with preliminary grades of B)	40	48	49	51	57
Expected Score for students whose performance in course was superior (i.e., students with preliminary grades of A)	43	54	54	56	61

Appendix H

Table of Expected Scores on CLEP Spanish for Students with Preliminary Grades of A, B, or C in Spanish 312L, 312K, 508K, 507 and 506

CLEP Score	312L	312K	508K	507	506
80	A	A	A	A	A
.	A	A	A	A	A
.	A	A	A	A	A
62	A	A	A	A	A
61	A	A	A	A	A
60	B	A	A	A	A
59	B	A	A	A	A
58	B	A	A	A	A
57	B	A	A	A	A
56	C	A	A	A	A
55	C	B	A	A	A
54	C	B	A	A	A
53	C	B	B	B	A
52		B	B	B	A
51		B	B	B	A
50		C	B	B	A
49		C	B	B	A
48		C	C	B	A
47		C	C	C	A
46		C	C	C	A
45			C	C	A
44			C	C	A
43				C	A
42					B
41					B
40					B
39					C
38					C
37					C
.					
.					
20					

Appendix I

Proposed CLEP Cut Scores to Earn A, B, or CR in Spanish 312L, 312K, 508K, 507 and 506

CLEP Score	SPN 312L	SPN 312K	SPN 508K	SPN 507	SPN 506
80	A	A	A	A	A
.	A	A	A	A	A
.	A	A	A	A	A
62	A	A	A	A	A
61	A	A	A	A	A
60	B	A	A	A	A
59	B	A	A	A	A
58	B	A	A	A	A
57	B	A	A	A	A
56	C	A → B	A	A	A
55	C	B	A	A	A
54	C	B	A	A	A
53	C → NC	B	B	B	A
52		B	B	B	A
51		B	B	B	A
50		C	B	B	A
49		C	B	B	A
48		C	C	B → C	A
47		C	C	C	A
46		C	C	C	A
45			C	C	A
44			C	C	A
43			NC → C	C	A
42					B
41					B
40					B
39					C
38					C
37					C
.					
.					
20					

Proposed CLEP Score Range**Proposed Credit Awarded**

61-80:	SPN 506, 507 or 508K, 312K, 312L, A
57-60:	SPN 506, 507 or 508K, 312K, A; 312L, B
54-56:	SPN 506, 507 or 508K, A; 312K, B; 312L, CR
51-53:	SPN 506, A; 507 or 508K, 312K, B
49-50:	SPN 506, A; 507 or 508K, B; 312K, CR
46-48:	SPN 506, A; 507 or 508K, 312K, CR
43-44:	SPN 506, A; 507 or 508K, CR;
40-42:	SPN 506, B
37-39:	SPN 506, CR

Appendix J

Proposed CLEP Cut Scores to Earn CR Only in Spanish 312L, 312K, 508K, 507 and 506

CLEP Score	SPN 312L	SPN 312K	SPN 508K	SPN 507	SPN 506
80	A	A	A	A	A
.	A	A	A	A	A
.	A	A	A	A	A
62	A	A	A	A	A
61	A	A	A	A	A
60	B	A	A	A	A
59	B	A	A	A	A
58	B	A	A	A	A
57	B	A	A	A	A
56	C	A	A	A	A
55	C	B	A	A	A
54	C	B	A	A	A
53	C	B	B	B	A
52		B	B	B	A
51		B	B	B	A
50		C	B	B	A
49		C	B	B	A
48		C	C	B	A
47		C	C	C	A
46		C	C	C	A
45			C	C	A
44			C	C	A
43			NC → C	C	A
42					B
41					B
40					B
39					C
38					C
37					C
.					
.					
20					

CLEP Score Range**Credit Awarded**

53-80:	SPN 506, 507 or 508K, 312K, 312L, <i>CR</i>
46-52:	SPN 506, 507 or 508K, 312K, <i>CR</i>
43-44:	SPN 506, 507 or 508K, <i>CR</i> ;
37-42:	SPN 506, <i>CR</i>

Appendix K

Recommendations by The College Board for CLEP Spanish Cut Scores

CLEP Computer-Based Testing		
CLEP Examination	Credit-Granting Score*	Credit Granted*
Foreign Languages		
Spanish Language, Level 1	50	6 hours
Spanish Language, Level 2	66	12 hours

*The scores that appear in this sample are the credit-granting scores recommended by the American Council on Education (ACE).

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Source: The College Board Web site: <http://www.collegeboard.com/highered/clep/index.html>
(Recommended Scores)

Appendix L

Spanish Language Interpretive Score Data*

ACE ** Recommended Number of Semester Hours for Two-Semester Exam: 6

ACE ** Recommended Number of Semester Hours for Four-Semester Exam: 12

Grade Level	Scaled Score	Median # Correct
	80	99
	79	96
	78	94
	77	92
	76	91
	75	89
	74	87
	73	86
	72	84
	71	82
	70	81
	69	79
Four-Semester B	68	78
	67	76
Four-Semester C	66	74
	65	73
	64	71
	63	70
	62	68
	61	67
	60	65
	59	64
	58	62
	57	61
	56	59
Two-Semester B	55	58
	54	56
	53	55
	52	53
	51	52
Two-Semester C	50	50
	49	49
	48	47
	47	46
	46	44
	45	43
	44	41
	43	40
	42	39
	41	37
	40	36

Grade Level	Scaled Score	Median # Correct
	39	34
	38	33
	37	31
	36	30
	35	29
	34	27
	33	26
	32	24
	31	23
	30	21
	29	20
	28	18
	27	17
	26	15
	25	14
	24	12
	23	11
	22	9
	21	8
	20	3

*Percentiles based on examinee performance are available upon request

** American Council on Education

***ACE recommended credit-granting scores.

Source: The College Board. (2003). *Test information guide, College-level Examination Program: Spanish language*. The College Entrance Examination Board, p. 20.

Appendix M

CLEP Spanish Credit Granting

With the introduction of computer-based testing, CLEP is using a common credit-granting score of 50 for all CLEP exams. This score represents the performance of students who earn a grade of C in the corresponding introductory college courses.

When a new or revised version of a test is introduced, the program conducts a Web-based standard setting to determine the recommended credit-granting score (“cut score”). A standard-setting panel is appointed to give its expert judgment on the student performance that would be necessary to receive college credit in the course. The panel consists of 15-20 faculty members from colleges and universities across the country who are currently teaching the course. The panel reviews the test and test specifications and has an online discussion to define the typical A, V, and C student performance on the exam. Individual students performance is rated on each question. The combined average of the ratings is used to determine a recommended number of examination questions that must be answered correctly to mirror classroom performance of a typical C student in the related course. The panel’s findings are given to members of the test developments committee (also faculty), who make a final determination, with the help of ETS content and psychometric specialist, about what raw score is equivalent to a “50.”

Source: The College Board. (2003). *Test information guide, College-level Examination Program: Spanish language*. The College Entrance Examination Board, p. 3.

Appendix N

Endorsement from the American Council on Education (ACE)

The American Council on Education (ACE), founded in 1918, is the major voice in American higher education and serves as the focus for discussion and decision-making on higher education issues of national importance. As such, it strives to ensure quality education on the nation's campuses. Within ACE, the Center for Adult Learning and Educational Credentials is the pioneer in evaluating extracurricular learning, assisting postsecondary education institutions in establishing policies and procedures for awarding credit based on ACE evaluations.

ACE has conducted periodic reviews of the CLEP program -- in September 1983, December 1990, March 1996, and most recently, August 2002. The ACE team consisted of twelve subject matter experts, from a variety of disciplines, and psychometricians who interviewed CLEP's content and statistical staff. They reviewed detailed reports and analyses across the spectrum of technical and exam content areas. In addition, they examined all publications and general operating procedures. The teams concluded that CLEP's procedures, managerial controls, policies, and the content validity and technical adequacy of the examinations meet or exceed ACE standards.

ACE makes the following credit-granting recommendations. Effective July 1, 2001, the American Council on Education recommends a uniform credit-granting score of 50 across all subjects (with the exception of Level 2 French, German, and Spanish), representing the performance of students who earn a grade of C in the corresponding course. Effective February 1, 2003, the American Council on Education recommends the following scores for Level 2 (four-semester) foreign-language examinations representing the performance of students who earn a grade of C in the corresponding course: 63 for German language, 62 for French language, and 66 for Spanish language.

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Source: The College Board Web site: <http://www.collegeboard.com/highered/clep/index.html>
(Recommended Scores/American Council on Education (ACE))