Comparing the CASAS Functional Writing Assessment Picture Task Rubric with the REEP Writing Rubric

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INTRODUCTION

A cooperative study was conducted between CASAS (Comprehensive Adult Student Assessment System) and REEP (Arlington Education and Employment Program) in order to establish validity evidence relating to each of the agencies' assessment of writing with ESL students. Currently, both agencies assess writing by either providing the examinee with a picture prompt and the direction to write about what is happening in the picture (CASAS) or by providing the examinee with written directions to write on a specific topic (REEP). Trained readers using well-defined rubrics and accompanying anchor papers then score the written responses.

PURPOSE

The purpose of this study was to determine both the comparability of each of the agencies' writing rubrics and the degree to which each agencies' prompts could be interchanged and scored by the other agencies' rubric. This comparison study was conceived to benefit ESL programs and practitioners by providing research to show that both tests are appropriate for use in adult education ESL programs. The study was also conducted to establish concurrent validity for both assessments, since both were designed for use with similar target learner populations.

OVERVIEW AND BACKGROUND

CASAS is a widely used assessment system for assessing adult basic skills within a functional context. Backed by 21 years of research and development in adult assessment, instruction and evaluation, CASAS has developed standardized multiple-choice and performance based assessments that are used in adult ESL programs throughout the country in the areas of reading, listening, writing and speaking. Many states have implemented the CASAS system to meet federal, state and local accountability requirements. A national field-based consortium identifies priority needs with extensive feedback from adult education program providers, employment and training professionals, and business and industry representatives.

The Arlington Education and Employment Program (REEP) is a special project within Department of Career, Vocational, and Adult Education of the Arlington Public Schools in Arlington, Virginia. REEP's mission of providing for the education and employment related needs of limited English speaking adult immigrants and refugees is accomplished through various educational components: intensive English as a Second Language (ESL), non-intensive ESL, workplace literacy, and computer-assisted instruction. Nine levels of ESL instruction are offered. Over 6,000 enrollment slots are provided annually at 8-10 locations throughout Arlington County. Instruction is provided by 55 trained and experienced ESL teachers, who are supported by 5 coordinators.

Both CASAS and REEP have developed writing assessments with rubrics to measure the writing skills of ESL learners at all instructional levels of adult education programs in the U.S. Both instruments have undergone rigorous validation procedures, which are described in their respective test documentation materials.

METHODOLOGY

Each agency selected 30 essays written by examinees varying in writing ability. These essays along with the corresponding prompts were then exchanged. Following a discussion of the accompanying prompt and after a brief review of each agency's own scoring rubric, each essay was independently scored by two trained readers using the agency's own rubric. A third reader was involved if scores differed by more than one point. Examinees were given both an analytical and a holistic score. In the case of the REEP readers, all examinees were given a score from each reader along with a total score which was the average of the sum of the two reader scores. In the case of the CASAS readers, all examinees were given a weighted total score and a level score from each reader along with an overall total and level score which was the average of the weighted sum of the two readers.

RESULTS

CASAS Prompt Essays

The inter-correlations between the scores on the 30 essays from the CASAS picture writing prompt based on the REEP and CASAS rubrics are presented in Table 1. The correlation between REEP total score and CASAS total score was .96 while the correlation between REEP total score and the CASAS level score was .93. The correlation between the two independent scorings by REEP was .96 for the total score. The correlations for the five analytical components between the two independent scorings of the CASAS prompt based essays using the REEP rubric were .93 for content/vocabulary, .91 for organization, .90 for structure, .91 for mechanics, and .90 for voice.

TABLE 1

INTER-CORRELATIONS BETWEEN WRITING SCORES BASED ON THE CASAS AND REEP RUBRICS USING WRITING SAMPLES FROM CASAS PROMPTS

N = 30		REEP SCORE 1	REEP SCORE 2	REEP TOTAL SCORE	CASAS TOTAL SCORE	CASAS LEVEL SCORE
REEP SCORE 1	Pearson Correlation	1	.956(**)	.989(**)	.948(**)	.923(**)
	Sig. (2-tailed)		0	0	0	0
REEP SCORE 2	Pearson Correlation	.956(**)	1	.989(**)	.946(**)	.917(**)
KLLF SCOKE 2	Sig. (2-tailed)	0		0	0	0
REEP TOTAL	Pearson Correlation	.989(**)	.989(**)	1	.958(**)	.931(**)
SCORE	Sig. (2-tailed)	0	0		0	0
CASAS TOTAL SCORE	Pearson Correlation	.948(**)	.946(**)	.958(**)	1	.938(**)
	Sig. (2-tailed)	0	0	0		0
CASAS LEVEL SCORE	Pearson Correlation	.923(**)	.917(**)	.931(**)	.938(**)	1
	Sig. (2-tailed)	0	0	0	0	
** Correlation is significant at the 0.01 level (2-tailed).						

REEP Prompt Essays

The inter-correlations between the scores on the 30 essays from the REEP writing prompt based on the REEP and CASAS rubrics are presented in Table 2. The correlation between the REEP total score and the CASAS total score was .97 while the correlation between the REEP total score and the CASAS total level score was .95. The correlation between the two independent scorings by CASAS was .93 for the total score and .88 for the total level score. The correlations for the five analytical components between the two independent scoring of the REEP prompt based essays using the CASAS rubric were .93 for content, .90 for organization, .87 for word choice, .84 for grammar/sentence structure, and .81 for spelling/capitalization/ punctuation.

TABLE 2

INTER-CORRELATIONS BETWEEN WRITING SCORES BASED ON THE CASAS AND REEP RUBRICS USING WRITING SAMPLES FROM REEP PROMPTS

N = 30		CASAS SCORE 1	CASAS LEVEL SCORE 1	CASAS SCORE 2	CASAS LEVEL SCORE 2	CASAS TOTAL SCORE	CASAS TOTAL LEVEL SCORE	REEP TOTAL SCORE
CASAS SCORE 1	Pearson Correlation	1	.977(**)	.932(**)	.880(**)	.986(**)	.963(**)	.945(**)
CASAS SCORE I	Sig. (2-tailed)		0	0	0	0	0	0
CASAS LEVEL	Pearson Correlation	.977(**)	1	.901(**)	.876(**)	.959(**)	.974(**)	.917(**)
SCORE 1	Sig. (2-tailed)	0	-	0	0	0	0	0
CASAS SCORE 2	Pearson Correlation	.932(**)	.901(**)	1	.962(**)	.979(**)	.959(**)	.956(**)
	Sig. (2-tailed)	0	0		0	0	0	0
	Pearson Correlation	.880(**)	.876(**)	.962(**)	1	.934(**)	.963(**)	.913(**)
	Sig. (2-tailed)	0	0	0		0	0	0
CACAC TOTAL	Pearson Correlation	.986(**)	.959(**)	.979(**)	.934(**)	1	.978(**)	.967(**)
	Sig. (2-tailed)	0	0	0	0		0	0
. =	Pearson Correlation	.963(**)	.974(**)	.959(**)	.963(**)	.978(**)	1	.945(**)
	Sig. (2-tailed)	0	0	0	0	0		0
2227	Pearson Correlation	.945(**)	.917(**)	.956(**)	.913(**)	.967(**)	.945(**)	1
	Sig. (2-tailed)	0	0	0	0	0	0	
** Correlation is significant at the 0.01 level (2-tailed).								

Tables 3 and 4 provide the inter-correlations between the CASAS and REEP analytical scoring components on the CASAS and REEP prompt based writing samples. All correlations are above .80 for both sets of samples.

TABLE 3 INTER-CORRELATIONS BETWEEN CASAS AND REEP ANALYTICAL COMPONENTS ON THE CASAS PROMPT WRITING SAMPLES

N = 30		REEP CONTENT/ VOC	REEP ORGANIZATION	REEP STRUCTURE	REEP MECHANICS	REEP VOICE	
CASAS CONTENT	Pearson Correlation	.922(**)	.915(**)	.923(**)	.887(**)	.943(**)	
CASAS CONTENT	Sig. (2-tailed)	0	0	0	0	0	
	Pearson Correlation	.919(**)	.935(**)	.911(**)	.909(**)	.953(**)	
	Sig. (2-tailed)	0	0	0	0	0	
	Pearson Correlation	.922(**)	.924(**)	.932(**)	.892(**)	.939(**)	
	Sig. (2-tailed)	0	0	0	0	0	
SENTENCE	Pearson Correlation	.922(**)	.901(**)	.925(**)	.869(**)	.932(**)	
	Sig. (2-tailed)	0	0	0	0	0	
CAPITALIZATION/	Pearson Correlation	.848(**)	.851(**)	.880(**)	.831(**)	.822(**)	
	Sig. (2-tailed)	0	0	0	0	0	
** Correlation is significant at the 0.01 level (2-tailed).							

TABLE 4 INTER-CORRELATIONS BETWEEN CASAS AND REEP ANALYTICAL COMPONENTS ON THE REEP PROMPT WRITING SAMPLES

N = 30		REEP CONTENT/ VOC	REEP ORGANIZATION	REEP STRUCTURE	REEP MECHANICS	REEP VOICE
CASAS CONTENT	Pearson Correlation	.950(**)	.952(**)	.961(**)	.946(**)	.962(**)
	Sig. (2-tailed)	0	0	0	0	0
	Pearson Correlation	.947(**)	.963(**)	.962(**)	.941(**)	.960(**)
	Sig. (2-tailed)	0	0	0	0	0
SENTENCE	Pearson Correlation	.877(**)	.876(**)	.881(**)	.871(**)	.884(**)
	Sig. (2-tailed)	0	0	0	0	0
011010	Pearson Correlation	.908(**)	.914(**)	.921(**)	.919(**)	.923(**)
	Sig. (2-tailed)	0	0	0	0	0
CAPITALIZATION/	Pearson Correlation	.873(**)	.901(**)	.897(**)	.891(**)	.872(**)
	Sig. (2-tailed)	0	0	0	0	0
** Correlation is significant at the 0.01 level (2-tailed).						

CONCLUSION

This study presents strong evidence for the validity of both the CASAS and REEP writing assessment rubrics for use with ESL students. Based on the observed correlations the two rubrics and prompts are interchangeable.