

Multiple-Choice Writing Skills Assessment: Content, Criterion- Related, and Construct Validity

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Multiple-Choice Writing Skills Assessments

Entry-level selection:

- Special Agents
- CBP Officers
- Adjudications Officers

Promotional assessment selection:

- Special Agents
- CBP Officers
- Adjudications Officers
- Border Patrol Agents



Focus of Current Study

- ❑ Adjudications Officer (AO) Occupation
 - Administered multiple-choice writing skills assessment as entry-level applicant
 - Administered writing sample test to attain journey-level standing (if passed)



Adjudications Officer

- Reviews written petitions from the public for immigration-related benefits (e.g., employment, legal status)
- Determines merit of petitioners' requests based on legal precedent and/or agency policies
- Drafts written responses to petitioners regarding dispositions of their requests



Job Analysis

- Writing skills are needed at entry to AO job
- Writing skills necessary for successful completion of 6 of 9 major duty areas
- Second-most important of all general competencies (behind Reading skills)



Content Validity

- ❑ Content validity – extent to which a selection procedure is representative of the job
 - Job analysis – clearly identified importance of writing to the AO job
 - Specific types of writing skills (via a taxonomy) were identified and weighted by SMEs
 - Sampled actual written materials produced by AOs on the job
 - Two 30-item forms developed w/ $r_{IC1}=.69$, $r_{IC2}=.79$, $r_{AF}=.74$ (Hayes, 2002)



Writing Skills Taxonomy

□ Examples of Coverage

- Organization (sentences/paragraphs in order)
- Grammar (correct use of nouns, pronouns, verbs)
- Syntax (writing clear and coherent sentences)
- Punctuation
- Capitalization
- Spelling
- Vocabulary (using correct word given situation)



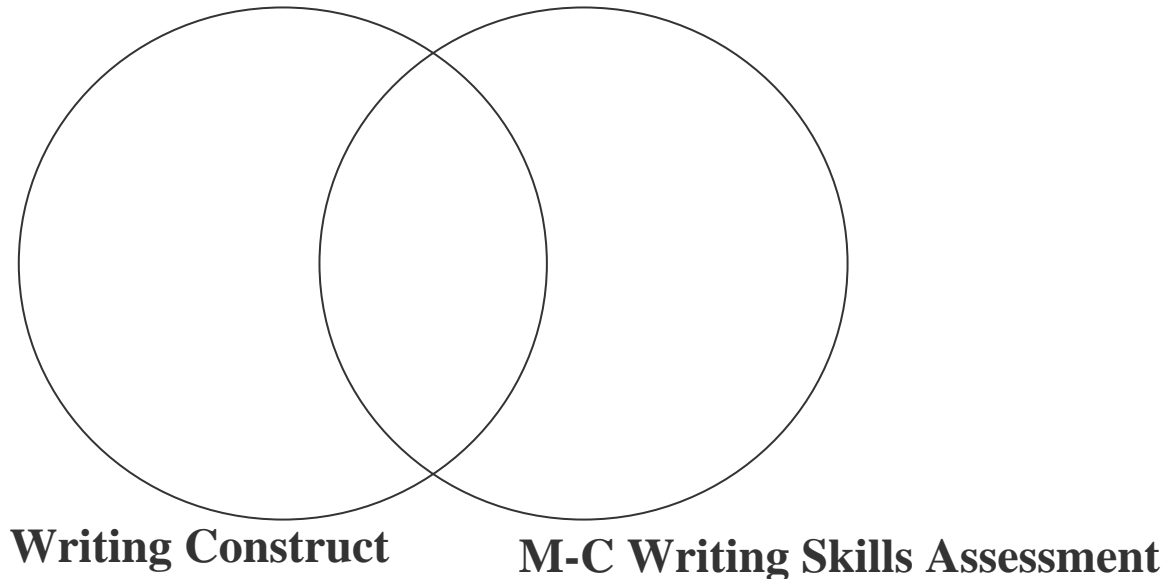
Criterion-Related Validity

- ❑ Criterion-related validity – refers to the extent to which a predictor(s) are predictive of or correlated with important elements of a job
- ❑ 2003 Criterion-Related Validation Study (McElreath, Hayes, Reilly, 2003)
 - $r_{xx} = .74$ internal consistency reliability of multiple-choice writing skills assessment ($n = 10,808$)
 - $r_{xy} = .63$ w/ logical reasoning test of ($p \leq .01$, $n = 441$)
 - $r_{xy} = .61$ w/ composite criterion ($p \leq .01$, $n = 309$)



Construct Validity

- ❑ Construct validity – refers to the extent to which an assessment measures an ability construct important for job performance



Construct Validity

- Preliminary demonstration of construct validity via:
 - Demonstration of relevance of writing construct via job analysis (2nd most important competency)
 - Reliability of multiple-choice writing skills assessment ($r_{xx}=.74$ internal consistency and alternate forms)
 - Writing skills taxonomy used to develop multiple-choice writing skills assessment
 - Measure is correlated w/ three measures of job performance ($.18 \geq r_{xy} \geq .70$, corrected)
 - Measure is correlated w/ another measure of writing skills (i.e., writing sample test, $r_{xy}=.55$)



Writing Sample Test

- ❑ What is the writing sample test?
 - Applicants presented with scenario describing two choices, either one of which can be supported on the basis of the information given (i.e., no right or wrong)
 - Applicants write an essay that argues for one of the two choices, showing why they favored their choice
 - Essay evaluated in terms of four skill areas:
 - Paragraph organization
 - Presentation of ideas
 - Grammar, syntax, and punctuation
 - Vocabulary, spelling, and capitalization
 - Two raters evaluate four skill areas using rating scales & provide an overall score



Construct Validity

Correlations Between Tests

	LRT	MCWS	WS
1. Logical Reasoning Test (LRT)			
2. Multiple-Choice Writing Skills (MCWS)	.66** (716)		
3. Writing Sample	.56** (715)	.55** (715)	
4. Biodata	.07 (716)	.04 (716)	.04 (716)

** Correlation is significant at the .01 level (2-tailed).

Note: number in parentheses represents the sample size



Regression Analysis Results

Hierarchical Regression with Writing Sample
on Logical Reasoning and Writing Test Scores

	<i>Adj. R²</i>	ΔR^2	β
Step 1: Logical Reasoning Test	.307**		.555**
Step 2: Logical Reasoning Test Writing Test	.365**	.058**	.341** .324**

** p < .01



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Implications for Practitioners

- ❑ A multiple-choice writing skills assessment is an efficient and effective means of measuring writing skills
- ❑ When developed as was done at the U.S. Customs & Border Protection, the measure can be content- and construct-valid and exhibit good criterion-related validity



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