

Studies Addressing Content-Related Validity

Materials needed

1. A listing of prerequisite knowledge and skills for each of the courses for which a test is being used as a placement tool, i.e., identify entering level knowledge and skills the student should have so that the likelihood of success in the course will be high.
2. The test's manual or other documentation, which identifies the knowledge and skills, purported to be measured by the test (test specifications or blueprint).
3. A test booklet containing the test's items or a representative sample of test items (in the case of computer adaptive testing) or if a performance assessment, the prompts and scoring rubric.

Persons Supplying Data

1. Faculty responsible for teaching those courses for which a test is being used as a placement tool.

Preferred Method

1. Have faculty review the prerequisites and content taught in each course.
2. (Optional) Have faculty rate the extent to which there is a match between the knowledge and skills purported to be measured by the test and the prerequisite knowledge and skills for each course.
3. (Required) Have faculty review each item on the test and for each item, identify or rate the extent of the match between the knowledge or skill being measured by the item and the knowledge or skill prerequisites for the courses. The response scale is a "yes/no" or "check/leave blank" for each item and each course prerequisite.
4. Tally the results, i.e., count the number of items on the test measuring each course prerequisite.
5. Summarize the results by course identifying:
 - a. the number of course prerequisites measured by at least one item,
 - b. the number of course prerequisites not measured by any items, and
 - c. the number of items on the test not measuring any course prerequisite.

Alternate Method

1. Specific course prerequisites are not available or not used in the rating process.
2. The faculty making the judgments is assumed to be knowledgeable of the entering level knowledge and skills the student should have so that the likelihood of success in the course will be high.
3. Global judgments are made for each item on "whether the item measures" or "the extent to which the item measures" a knowledge or skill that is judged to be "important for success in the course." Items are judged (rated) for each course. Typical response questions and scales are:

- a. Does this item measure a prerequisite knowledge or skill for the course that is important to success in the course? Yes – No
 - b. How important is the knowledge or skill measured by each item for successful acquisition of the knowledge and skills taught in the course?
 - 1) Critically important
 - 2) Important
 - 3) Slightly important
 - 4) Not relevant
4. Tally the results, i.e., count the number of items on the test measuring knowledge or skills judged important for each course or get mean ratings.
 5. Summarize the results by course identifying;
 - a. for each course the number of items judged to be measuring an important prerequisite for success in the course, and
 - b. for each course the number of items on the test judged not to be measuring an important prerequisite for success in the course.

Common Deficiencies in Content Validity Studies Submitted by Local Colleges and Preliminary Report Comment Examples

Common Deficiencies in Evidence Submitted

- 1. No description of the faculty involved, the rating scale used or an interpretation of the results relative to the alignment of the test and test items in terms of the skills measured to prerequisite skills for all the courses into which the test will be used for placement.**
- 2. Review focuses only on the overall skills being measured by a test and does not include an item-by-item review and reporting.**
- 3. Results are not summarized for each course into which placement will occur.**
- 4. Process is reported, but the information is not examined sufficiently to draw appropriate negative conclusions. Doing the study and satisfying the requirement is the focus rather than on what the data are saying about the fit of the test to the course prerequisites.**
- 5. Results are not summarized in terms of: 1) how many prerequisites are being measured by at least one test item and how many are not being measured by the test items for each course (extent of coverage) and 2) how many test items do not measure any course prerequisite skills.**

- 6. For renewal of a “writing” assessment, a formal review to confirm the alignment of rubric score value descriptions to specific course prerequisites is not conducted or reported.**

Comment Example 1: Algebra Readiness Test

Need a more complete study. In future submissions for renewal, the expectation is that a complete content validity review be conducted at both the test skill and item level. Included in the results should be the extent to which the test comprehensively measures the prerequisites to the courses into which students are being placed.

Comment Example 2: Nelson-Denny

It was stated that an item by item match to course prerequisites was conducted, but no summary of the results was presented in terms of which items measured prerequisites for which course, whether some items measured no course prerequisites and whether there were course prerequisites not measured by any items.

Comment Example 3: Algebra Test

The data presented are sufficient to document that the test items measure course prerequisite skills, but do not provide evidence on the comprehensiveness of the measurement. Evidence is needed to identify how many of the course prerequisite skills are being measured by the items, only one? Two? All? The items may be highly aligned, but only focus on, e.g., 3 of 10 prerequisite skills. Evidence is needed addressing the comprehensiveness of the measurement, i.e., how many prerequisite skills are being measured? How many are not being measured?

Comment Example 4: SLEP

A more complete description of the study for the SLEP is needed in terms of how many instructors were involved, what rating scale was used and a summary of ratings by item and by course skill.

Comment Example 5: ACT COMPASS College Algebra

Your content validity study data collection procedures were viewed as appropriate. However, it was unclear which of the COMPASS test item pools would be used specifically to place students into which courses. The ratings were collected implying that all the tests would be used to place into all the courses listed. Instructors from several campuses in the district were used which was necessary. There was no statement, but it is assumed that the courses are the same across campuses. Clarification of these issues is needed before Full Approval status can be granted.

Comment Example 6: Writing Sample (ENL)

For renewal, a formal study of content validity is required with a formal faculty review to reconfirm that the scoring rubric scale descriptions still align with the required prerequisite skills for success in the courses into **which placement** occurs. This study may have been conducted, but the write-up does not clearly state so.

Comment Example 7: English Writing Sample

Completed faculty Content Validity Checklists are provided, but no summary or discussion of the data is provided. Summary data and/or an argument need to be provided that links the rubric score levels and their descriptions to different course prerequisites. Also, the rubric score levels would indicate that the Writing Sample is used for placement only into the Writing courses (65, 80, and 100) and the transfer course, yet reference and data are provided for the reading courses. How scores from the Writing Sample are used for placement needs to be described.

Content Validity Data Collection and Reporting Samples

Sample 1

Y = At least three of four faculty agreed item measures prerequisite skill to course.

N = At least three of four faculty agreed item does not measure prerequisite skill to course.

? = Faculty undecided (two say Yes; two say No)

Test Item	Math 130	Math 140	Math 150	Math 160	Yes/?/No
1	Yes	Yes	Yes	Yes	
2	Yes	Yes	Yes	Yes	
3	Yes	Yes	Yes	Yes	
4	?	?	?	?	
5	No	No	Yes	Yes	
6	No	No	Yes	Yes	
7	?	?	Yes	Yes	
8	Yes	Yes	Yes	Yes	
9	No	Yes	Yes	Yes	
10	No	Yes	Yes	Yes	
11	No	Yes	Yes	Yes	
12	No	No	No	No	
13	?	?	?	No	
14	No	No	Yes	Yes	
15	No	No	Yes	Yes	
16	No	Yes	Yes	Yes	
17	No	No	Yes	Yes	
18	No	No	No	No	
19	No	No	Yes	Yes	
20	No	No	Yes	Yes	
21	No	No	Yes	Yes	
22	No	No	Yes	Yes	
23	No	No	No	No	
24	No	No	No	Yes	
25	No	No	Yes	Yes	
26	No	No	Yes	Yes	
27	No	No	No	Yes	
28	No	No	No	No	
29	No	No	No	Yes	
30	No	No	No	No	
Total	4	8	20	23	

Question: What don't we know from these data? (Answer: Number of Prerequisite Skills Measured.)

Sample 2

How important is the knowledge or skill measured by the item for successful acquisition of the skills to be taught in the course?

- 4 – Critically important
- 3 – Important
- 2- Slightly Important
- 1 – Not Important or Relevant

Test Item	ESL 521	ESL 522	ESL 523	Yes/?/No
1	4.0	4.0	1.6	
2	3.6	3.6	1.0	
3	3.3	3.3	1.0	
4	2.3	3.6	1.6	
5	3.0	4.0	1.3	
6	3.3	3.6	2.3	
7	3.6	4.0	2.0	
8	1.6	1.6	3.6	
9	1.6	2.3	2.6	
10	2.0	2.0	1.6	
11	3.3	2.6	2.0	
12	1.6	2.0	3.3	
13	2.0	2.0	4.0	
14	1.3	1.3	3.6	
15	1.3	1.3	1.3	
16	3.0	2.6	1.3	
17	2.0	2.0	3.6	
18	1.3	1.3	4.0	
19	1.6	1.6	3.3	
20	2.0	2.3	2.6	
Total				

Sample 3

Test Item	READ360 Prereq. Skill			READ380 Prereq. Skill					READ400 Prereq. Skill		
	1	2	3	1	2	3	4	5	1	2	3
1	Y			Y							
2		Y			Y					Y	
3											
4			Y			Y	Y				
5	Y		Y	Y		Y		Y	Y		Y
6		Y			Y					Y	
7											
8	Y	Y		Y	Y				Y	Y	
9											
10	Y										
11											
12		Y			Y					Y	
13											
14		Y									
15											
16											
17										Y	
18	Y										
19											
20							Y	Y			
21							Y				
22								Y			
23	Y										
24											
25											Y
26							Y	Y			
Total											

