Digital Module 26: Content Alignment in Standards-based Educational Assessment

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Module Overview

In this digital ITEMS module, Dr. Katherine Reynolds and Dr. Sebastian Moncaleano discuss content alignment, its role in standards-based educational assessment, and popular methods for conducting alignment studies. The module begins with an overview of content alignment and its relationship to validity before discussing common alignment study methods. Each method's conceptualization of alignment is discussed, along with more practical issues such as the materials and participants required and steps for carrying out each method. The final component of this module includes a deeper exploration of the Webb method, one of the most popular content alignment study approaches. This includes a detailed and practical discussion of the steps followed in a Webb alignment study, as well as how to interpret the various alignment indices provided in the Webb framework. This digital module includes PowerPoint slides, quiz questions with formative feedback, an extended alignment activity with formative feedback, and a glossary.

Key words: Achieve methodology, content alignment, content area standards, content validity, standards-based assessment, Surveys of Enacted Curriculum, Webb methodology

Prerequisite Knowledge

This ITEMS module assumes an introductory understanding of standards-based educational assessment, as well as basic knowledge of validity and types of validity evidence. It will be helpful for individuals tasked with selecting a methodology for an alignment study, carrying out an alignment study, or interpreting the results of an alignment study. Familiarity with a particular set of content standards may help contextualize this module, but is not required. This module and others are available for free in the ITEMS portal.

Learning Objectives

Upon completion of this ITEMS module, learners should be able to:

- Understand the concept of alignment as it pertains to educational assessments and content standards
- Describe and compare different methods for conducting alignment studies
- Describe the steps for carrying out an alignment study in the Webb framework
- Describe the criteria used to evaluate alignment in the Webb framework
- Interpret the results of a Webb alignment study

Module Structure

The digital module is divided into the following sections, which can be reviewed sequentially or independently [*approximate completion times in parentheses*].

- Module Introduction [*5 Minutes*]
- Section 1: Overview of Alignment [*10 Minutes*]
- Section 2: Types of Alignment Studies [*25 minutes*]
- Section 3: Applying the Webb Model [*30 minutes*]
- Section 4: Quizzes [*15 minutes*]

In the portal site, you can also find a video version of the core content as well as a handout with all core slides along with other materials.

Module Components

This ITEMS module includes the following components, which are delivered within a web-delivered unified design shell that is compatible across platforms (i.e., laptops, desktops, tablets, cell phones) and was created with modern course development software (*Articulate 360*):

- integrated content slides with voice-over and animations
- interactive quiz questions
- glossary of key terms
- supplementary digital resources

Additional materials may be added over time so check back periodically!

Instructors

Katherine Reynolds, **Ph.D**., *Assistant Research Director, Boston College, Chestnut Hill Massachusetts*

Katherine completed her Ph.D. in Measurement, Evaluation, Statistics, and Assessment in 2020 at Boston College. Her work focused on scale development and other applications of psychometric research. She has taught graduate courses in research methods and undergraduate courses in the foundations of education. She has worked on several alignment-related projects, including facilitating panels for Webb alignment studies.

Sebastian Moncaleano, **Ph.D**., *Senior Research Specialist, Boston College, Chestnut Hill Massachusetts*

Sebastian completed his Ph.D. in Measurement, Evaluation, Statistics and Assessment at Boston College in 2021 where he focused his doctoral research on the value of technology-enhanced items in computer-based educational assessments. He has taught graduate courses in introductory statistics and assessment development. He has also conducted content alignment studies for the Department.

Instructional Design Team

André A. Rupp, *Mindful Measurement*

André is the co-author and co-editor of two award-winning interdisciplinary books entitled *Diagnostic Measurement: Theory, Methods, and Applications* (2010) and *The Handbook of Cognition and Assessment: Frameworks, Methodologies, and Applications* (2016) and has just published the *Handbook of Automated Scoring: Theory into Practice* (2020). His research synthesis- and framework-oriented work has appeared in a wide variety of prestigious peer-reviewed journals. Among other things, he is passionate about improving processes for interdisciplinary collaborations during the development and implementation of scoring solutions for digitally-delivered assessments. Consequently, he is very excited to serve as the associate editor / lead instructional designer of the ITEMS portal for NCME whose mission is to provide free digital resources to support self-directed learning and professional development.