

Syllabus

Course Overview

This course is organized to first introduce you to the foundations of tests and measurements during the first 5 weeks, and then to applications in a variety of settings during the last 5 weeks. Foundations include the history of psychological testing, scores and their analysis on tests, the consistency and meaningfulness of those tests, and procedures for creating different types of tests using appropriate items and scores. The course then applies those foundational concepts to different constructs and specialties, including intelligence, ability, aptitude, achievement, personality, behavior, career interests, education, clinical, counseling, neuropsychology, business, and organizations. Subsequently, the course covers content knowledge and skills that are relevant to a wide range of interests in psychology.

NASP Alignment

The competencies and subcompetencies of this course have been aligned with the National Association of School Psychologist (NASP) Domains of School Psychology and Practice (2010). Open the [NASP Alignment \[PDF\]](#) document to review the alignments.

Course Competencies

(Read Only)

To successfully complete this course, you will be expected to:

- 1 Apply terminology, principles, statistical concepts, and psychometric features related to the construction and application of psychological tests.
- 2 Analyze key psychometric properties related to tests and measurement, with an emphasis on reliability and validity.
- 3 Evaluate the properties, techniques, and applications used in psychological evaluation.
- 4 Evaluate the legal, ethical, and professional issues related to test usage.
- 5 Analyze the impact technology has had on the techniques and applications used in psychological testing.
- 6 Integrate fairness in testing with ethical and legal considerations and sensitivity.
- 7 Communicate in a manner that is scholarly, professional, and consistent with expectations for members of the psychological profession.

Course Prerequisites

Prerequisite(s): MS School Psychology learners must take this course during their second quarter, immediately following PSY5004.

Syllabus >> Course Materials

Required

The materials listed below are required to complete the learning activities in this course.

Integrated Materials

Many of your required books are available via the VitalSource Bookshelf link in the courseroom, located in your Course Tools. Registered learners in a Resource Kit program can access these materials using the courseroom link on the Friday before the course start date. Some materials are available only in hard-copy format or by using an access code. For these materials, you will receive an email with further instructions for access. Visit the [Course Materials](#) page on Campus for more information.

Miscellaneous Item

American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (2014). *Standards for educational and psychological testing*. American Educational Research Association. Note: You will receive an e-mail with a code and redemption instructions for arranged online digital access to this textbook at AERA.

Book

American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author. ISBN: 9781433805592.

Cohen, R. J., & Swerdlik, M. E. (2018). *Psychological testing and assessment: An introduction to tests and measurement* (9th ed.). McGraw-Hill. ISBN: 9781259870507.

Library

The following required readings are provided in the Capella University Library or linked directly in this course. To find specific readings by journal or book title, use [Journal and Book Locator](#). Refer to the [Journal and Book Locator library guide](#) to learn how to use this tool.

- Embretson, S. E. (2004). The second century of ability testing: Some predictions and speculations. *Measurement: Interdisciplinary Research and Perspectives*, 2(1), 1–32.
- Guion, R. M. (1980). On trinitarian doctrines of validity. *Professional Psychology: Research and Practice*, 11(3), 385–398.
- Messick, S. (1995). Validity of psychological assessment: Validation of inferences from persons' responses and performances as scientific inquiry into score meaning. *American Psychologist*, 50(9), 741–749.
- Thornton, G. C., III., & Gibbons, A. M. (2009). Validity of assessment centers for personnel selection. *Human Resource Management Review*, 19(3), 169–187.

External Resource

Please note that URLs change frequently. While the URLs were current when this course was designed, some may no longer be valid. If you cannot access a specific link, contact your instructor for an alternative URL. Permissions for the following links have been either granted or deemed appropriate for educational use at the time of course publication.

- Joint Committee on Testing Practices. (2004). Code of fair testing practices in education [PDF]. <https://www.apa.org/>
- Nitko, A. J. (n.d.). Using a *Mental Measurements Yearbook* review to evaluate a test. <http://buros.org/using-mental-measurements-yearbook-review-evaluate-test>

Suggested

The following materials are recommended to provide you with a better understanding of the topics in this course. These materials are not required to complete the course, but they are aligned to course activities and assessments and are highly recommended for your use.

Optional

The following optional materials are offered to provide you with a better understanding of the topics in this course. These materials are not required to complete the course.

Projects

Project >> Final Analysis of a Selected Test

Project Overview

For your course project, you will evaluate the appropriateness of a standardized test for a particular population and situation according to the 2004 "Code of Fair Testing Practices in Education" (referred to hereafter as the Code).

The course project gives you the opportunity to apply the course material to your work, interests, or area of specialization at Capella. Even if you do not plan to administer tests, it is important to be able to evaluate a test for quality and appropriateness. This skill is important and may be required in a variety of settings and applications, including, but not limited to:

- Selecting the optimal standardized test to administer to an individual, based on the setting and population being served.
- Recommending the best standardized test to a school district, hospital, or business organization based on the test's utility.
- Defending the use of a standardized test in a courtroom setting should it or its results be questioned.

Project Skills

The project can be challenging, but also an interesting academic exercise. It is expected that you will use the knowledge and skills you learned in this course, as well as past courses, for this project. Following are some of the academic skills that are important for graduate learners, which you will be demonstrating in this project:

- Demonstrating basic and professional writing skills, including use of APA format for citations and references.
- Conducting library searches in journals.
- Conducting literature reviews.
- Critical thinking skills.
- Understanding of the theories and research, and their application in your specialization.

Project Objectives

To successfully complete this project, you will be expected to:

1. Determine the appropriateness of a selected test for its use in the field and in relation to your current or future occupation or area of specialization at Capella.
2. Evaluate the technical quality and psychometrics of a selected test.
3. Evaluate the quality of psychological and educational assessment instruments, including the appropriateness of its materials, procedures, and intended use.
4. Become familiar with the professional standards and best practices for selecting psychological and educational tests.
5. Evaluate legal and ethical issues related to test usage.

Project Requirements

This course project will require you to focus on a likely common task in your future career regardless of the area of specialization you are in at Capella; namely, the review and selection of an appropriate, quality standardized test. There are a multitude of published tests in the fields of education and psychology with many that purport to measure the same construct, content, or skill. Is there a checklist or procedure to help a professional make the best choice among those tests for a specific purpose? The answer is yes. You will discover that each test can and should be analyzed for its purpose, content, skills to be measured, accuracy, technical quality, materials, procedures, appropriateness, and use across a diverse population. During this quarter, you will learn about, access, and use a variety of resources in the field to help you analyze a selected standardized test and create your final analysis of a selected test.

Your last assignment (due in Unit 9) is the Final Analysis of a Selected Test. However, this project is made up of four assignments, and each one builds on the ones that you completed earlier. Essentially, the analysis is broken down into smaller chunks, which you will evaluate separately and provide evidence for the selected test's appropriateness and quality. Your final analysis will focus on your decision about the use of your selected test based on existing research and literature reviews. Your final analysis will also require you to defend your decision about using, or not using, your selected test. Below are the assignments that are included in the final project. It is important that you carefully read the instructions for the course project and each individual assessment to meet all required criteria, which align to course competencies.

- Unit 2: Review and Selection of a Standardized Test.
- Unit 5: Evaluation of Technical Quality.
- Unit 7: Evaluation of Test Materials and Procedures.
- Unit 9: Final Analysis of a Selected Test.

Unit 1 >> An Overview: The Who, What, Why, How, and Where

Introduction

The *who*? These are the first words of the first unit of this course. It asks you to consider the *who* of tests and measurement. Although, perhaps, it is more important to first start with the *you* in that *who*. Why do you want to, or need to, study tests and measurements?

Think about what first drew you to the field of psychology. Did you want to work with or help people? Did you want to improve your understanding or your own thoughts, feelings, and behaviors? Did you want to do research in the field or university? Or, like your instructor, did you want to teach others about psychology?

You likely, hopefully, started your journey being excited about learning psychology. Now, comes this course, Tests and Measurements, and you ask, "why do I have to take a course in tests and measurements?" You likely have had many experiences with tests in your own school history. Perhaps, those were positive experiences; perhaps, those were negative experiences. Everyone brings a bit of bias with their unique history. Sometimes, the history of testing itself brings a bias that remains timeless. How do we discern what is true about testing, be it good or bad?

All of these are excellent, appropriate, and correct questions to ask. During this unit, you will be reflecting on and discussing some of those previous experiences and your perceptions about assumptions in tests and measurements.

Regardless of what motivated you to study psychology, an important skillset for all the possible roles you may take in the future is the understanding of tests and measurements. The content in this course offers the ability to develop those skills that are prerequisite to being a competent professional in the field—be it as a psychometrist, counselor, program evaluator, organizational or behavior consultant, or clinical, educational, or school psychologist.

This first unit's goal is to be a broad introduction to the entire scope of tests and measurements. You will gain a sense of the history of the field, starting as early as 2200 BC to today. Really, 2200 BC! You will also learn about Sir Francis Galton, who is often considered the father of mental tests and measurements. You will be exploring the history of tests and measurements in one of your discussions in this unit. As you read through the list of key concepts, note that we will be returning to them throughout the course for greater depth of understanding in the units that follow. Essentially, we will be starting with the *what* of tests and measurements at the beginning, literally.

So, if you took time to think about *why* you need tests and measurements, as well as your own history with testing, then you will explore *why* we do it. Would the world be better off if there were no tests at all? Some learners may suggest that a *test-free* world would be desirable; while other learners may think that testing is the perfect tool for answering questions in the field, be it working with people or organizations. Set aside those previous experiences for now as we explore this question during this first unit and as we learn about the facts around tests and measurements, and not be tied to assumptions, myths, or previous experiences.

Think about this. Do you like the idea of being operated on by a surgeon who never had his or her medical and surgical knowledge and skills assessed? Do you like the idea of flying with an airline pilot who was never tested for his or her skills as a pilot? Or what about you? Would you prefer that your grade in this course be based on the instructor's general impression of you, or on your graded performance on assignments, discussions, and tests?

So, you may prefer, hopefully, graded performance on a test over the instructor's general impression of you. However, you may likely want that final test, or any test you take, to be properly constructed to measure what it purports to measure, to be consistent in that measurement, and to be providing information that is appropriate for the question being asked. For example, we could plan on collecting information on either (1) how well you did on a test based on predetermined levels of proficiency or criterion, or (2) your performance reflected as a position relative to all other learners, or a normative group. For this course, your work will be scored according to the first option, or criterion-referenced scores. There are advantages to either approach. You will be learning about both of these types of tests and scores in the coming units and, subsequently, will be a better consumer and user of tests as you discover the *how* of tests and measurements.

Let us not get too far ahead here. We explored the *why* of your interest in the field of psychology, the *why* of studying tests and measurements, and the *how* of tests and measurements. Hopefully, you are convinced about the importance of the content that you will experience over the next 10 units in terms of it preparing you to be a competent professional in the field.

Learning Activities

u01s1 - Studies

Key Concepts

In each of the units, you will be presented with a concept list of items that are key to understanding the materials in that unit. You may want to print this document to refer to as you proceed through the activities in each unit. They will also guide you in the learning checks, which are in most units.

- Review [Unit 1 Key Concepts \[PDF\]](#).

Readings

Read the following:

- [Learner Expectations](#) for important information about your success in this course.
- [Professional Communications and Writing Guide \[PDF\]](#). You are expected to adhere to these guidelines when writing a discussion post, peer response, or paper, as well as when using citations and references.

Use your *Psychological Testing and Assessment* text to read the following:

- Chapter 1, "Psychological Testing and Assessment," pages 1–35.
- Chapter 2, "Historical, Cultural, and Legal/Ethical Considerations," pages 36–74.
- Pages 115–121 of Chapter 4, "Of Tests and Testing."

Use your *Standards for Educational and Psychological Testing* text to read the following:

- Chapter 10, "Psychological Testing and Assessment," pages 151–168.

Procurement

Each course registrant receives an e-mail with a code and redemption instructions for arranged online digital access to this textbook at AERA via their preferred e-mail address on file. If applicable, check Spam and Junk mail for subject line: **Access Code for AERA Standards Text.**

Use the Capella University Library to read the following:

- Embretson, S. E. (2004). The second century of ability testing: Some predictions and speculations. *Measurement: Interdisciplinary Research and Perspectives*, 2(1), 1–32.
 - Pages 6–14, "The First Century of Ability Testing: A Brief Review."

Use the Internet to read the following:

- Joint Committee on Testing Practices. (2004). Code of fair testing practices in education [PDF]. Retrieved from <http://www.apa.org/science/programs/testing/fair-testing.pdf>

Media

Complete the following Capella multimedia:

- Interview With a Psychometrist.

u01s1 - Learning Components

- Research the development of tests and testing.
- Define key concepts for quiz preparation.
- Describe areas of specialization in relation to testing.
- Define the elements of the Code of Fair Testing Practices in Education.
- Outline the requirements and practices for appropriate test administration.

u01s2 - Assignment Preparation

Read the course project information to understand the requirements of the project and how you will be assessed in this course.

Your first assignment is due in Unit 2. You may want to take the time to read through the assignment description, the Review and Selection of a Standardized Test Scoring Guide, as well as the second discussion in Unit 2 now to understand the requirements and grading criteria and to plan adequate time to prepare for and complete the assignment.

Important: A minimum of nine references are required for this assignment. These resources may include all of the reference sources identified in your *Psychological Testing and Assessment* text (pages 33–36), but must include:

- Three *Mental Measurement Yearbook* (MMY) test reviews from Buros (one for each test). MMY is available on Database Guide: Mental Measurements Yearbook page.
- Three test publisher websites (one for each test).
- Three peer-reviewed journal articles (one for each test).

APA Style

Refer to this resource for guidance on APA style and format as you prepare all of your assignments for this course.

- American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

u01s2 - Learning Components

- Research the development of tests and testing.
- Define test types and categories.

u01d1 - Assumptions About Psychological Testing and Assessment

In the unit introduction, you read about the influence that your history and previous experiences with tests may have on your perception of them at the start of this course. Remember to set aside these perceptions as you enter the course and learn about tests and their measurement. Remain cognizant of them as you proceed so they do not prevent you from learning about tests and, perhaps, change your mind, either way, about them. Additionally, in your readings from the *Psychological Testing and Assessment* text, you were introduced to seven basic assumptions about psychological assessment. Identify the one assumption that was the most difficult for you to accept based on your current understanding or previous experiences with testing.

In your post:

- Identify the assumption by number and title that presented the most questions for you. (Include the number and title in your subject line of the discussion thread when you post it.) Also, include an indicator about how concerning the assumption is to you at this time (that is, 0 = No concern at all, just the most problematic relative to all other assumptions I am presented; 1 = Somewhat concerned with this assumption; 2 = Very concerned with this assumption; 3 = Significantly concerned and in disagreement with this assumption).
- Identify specific parts or elements of the assumption that were most concerning to you.
- Analyze if the assumption elements identified are based on (a) your previous experiences, (b) others' perspectives, (c) facts, or (d) a combination of these.
- Discuss why these elements were most concerning to you in terms of those previous experiences, perspectives, or facts. Essentially, share an example of those experiences or knowledge that resulted in your current concern.
- Identify which future chapter in the *Psychological Testing and Assessment* text may be important and relevant for you, based on the assumption you identified. (**Hint:** Look through the Table of Contents or Index in your text for help.)

Response Guidelines

Carefully read the response guidelines regarding the two different submissions required for response posts.

Respond to the posts of at least two other learners. Attempt to identify one post that is the same as your choice and one that is different from your choice. Discuss how the content of the post is similar to or different from your post and explore how different experiences and knowledge result in different perspectives. Focus on providing facts, rather than opinion, to support the assumption being presented as concerning to them. Keep in mind that the objective of response posts is to stimulate discussion, promote an exchange of ideas, and (most importantly) to generate a sense of community among learners in the courseroom.

Course Resources

Psychology Attributes and Evaluation of Discussion Contributions

u01d1 - Learning Components

- Investigate testing from the perspective of test takers.
- Research the development of tests and testing.
- Apply writing and citations skills appropriate for doctoral-level learners.

Unit 2 >> Test Scores and Basic Statistics

Introduction

Don't get scared now.

— Kevin McCallister

Hey! I am in a course about tests and measurements. This is not supposed to be about *statistics*.

First, there exists a multitude of statistical analyses that are utilized in the development of tests that many people use in a wide range of specialties in psychology, education, and business. Mathematical calculations range from measures of central tendency, such as the mean, to measures of variability, such as the standard deviation, and standard scores and correlations to multiple regression analyses and discriminant function analysis. Second, you will be learning about all of these statistical calculations in this course. Third, you will *not* have to perform a single mathematical calculation.

A Statistics Refresher

It is, however, important that you understand these concepts, applications, and procedures for obtaining various statistics that are generated with the tests used in the field. Subsequently, the unit readings start with Chapter 3, "A Statistics Refresher," from your *Psychological Testing and Assessment* text. In this chapter, you will be introduced to numerous numbers that help give meaning to test scores, and how different types of measurement or scales come with unique properties regarding what kind of information it offers, as well as if and how statistics can be applied to better understand those

numbers or data being collected. In Chapter 4, "Of Tests and Testing," the text moves from the measurement scale to explaining how those data provide meaning through comparing them to a reference set; for example, comparing one person's score to a group of test-takers, or comparing it to a set standard of performance.

In fact, in the discussion in this unit, you will be discussing scores, scales, and comparisons that can be made. Additionally, you will be exploring three different tests that you are interested in for your academic career or future professional goal (see the unit assignment).

The assignment requires you to utilize the Lists of Tests by Type document, which is provided in the unit readings.

Reference

Hughes, J. (Producer), & Columbus, C. (Director). (1990). *Home alone* [Motion Picture]. USA: Hughes Entertainment.

Learning Activities

u02s1 - Studies

Key Concepts

Review [Unit 2 Key Concepts \[PDF\]](#).

Readings

Use your *Psychological Testing and Assessment* text to read the following:

- Chapter 3, "A Statistics Refresher," pages 75–114.
- Pages 121–140 of Chapter 4, "Of Tests and Testing."

Use your *Standards for Educational and Psychological Testing* text to read the following:

- Chapter 5, "Scores, Scales, Norms, Score Linking, and Cut Scores," pages 95–107.

Use the Internet to review the following:

- Joint Committee on Testing Practices. (2004). [Code of fair testing practices in education \[PDF\]](http://www.apa.org/science/programs/testing/fair-testing.pdf). Retrieved from <http://www.apa.org/science/programs/testing/fair-testing.pdf>
 - Page 5.
- Nitko, A. J. (n.d.). [Using a *Mental Measurements Yearbook* review to evaluate a test](http://buros.org/using-mental-measurements-yearbook-review-evaluate-test). Retrieved from <http://buros.org/using-mental-measurements-yearbook-review-evaluate-test>

Review the following:

- [List of Tests by Type \[DOCX\]](#).
 - Also see the unit assignment instructions and the course project information.

Media

Complete the following Capella multimedia:

- [Norm-Referenced Versus Criterion-Referenced Assessment](#).
- [Measurement Scales Activity](#).
- [Correlation](#).

u02s1 - Learning Components

- Describe types of measurements used in testing.
- Describe the characteristics of fair test items and procedures.
- Define key concepts for quiz preparation.
- Describe characteristics of test quality.

- Explain statistical knowledge needed to use and interpret tests.

u02d1 - The Scales We Use and the Comparisons We Make

In this unit, you are introduced to four scales of measurement, which are easily remembered with the acronym NOIR, and include nominal, ordinal, interval, and ratio. Each of these levels or scales of measurement has its own properties, methods for assigning numbers or scores, and procedures for statistically manipulating them. As noted in your *Psychological Testing and Assessment* text, and adhering to a fundamentalist view of measurement statistics, all possible attributes in psychology can be examined through at least one of these four scales and the creation of scores that purport to measure them.

You also read about two methods for evaluating those scores by comparing them to a reference set of data; namely, norm-referenced testing and assessment, and criterion-referenced testing and assessment. Each of these methods is unique in the focus regarding a test's scores or results.

Discuss the impact of each scale of measurement on the ability or inability to be utilized on a test being standardized as a norm-referenced or criterion-referenced assessment. For the purpose of this discussion, you may cluster the ordinal and interval scale together. Subsequently, your post will include the following four elements:

- Ordinal or interval scale of measurement and norm-referenced test.
- Ordinal or interval scale of measurement and criterion-referenced test.
- Ratio scale of measurement and norm-referenced test.
- Ratio scale of measurement and criterion-referenced test.

In your post:

- Provide at least one example that is not in your *Psychological Testing and Assessment* text for each combination above and describe how the referencing data would be collected.
- Provide a statement that evaluates which scale of measurement appears to be the most useful for examining attributes in psychology. Explain.
- Evaluate which method of referencing (norm or criterion) appears to be the most useful for examining attributes in psychology. Explain your decision based on the area of focus regarding the test results. For example, identify if it is preferable to focus on how one individual performs relative to others who took the same test, or if it is preferable to only focus on what the individual can or cannot do.

Response Guidelines

Respond to the posts of at least two other learners.

Course Resources

Psychology Attributes and Evaluation of Discussion Contributions

u02d1 - Learning Components

- Describe types of measurements used in testing.
- Apply writing and citations skills appropriate for doctoral-level learners.
- Describe areas of specialization in relation to testing.

u02a1 - Review and Selection of a Standardized Test

In Unit 1, you read "The Concerns of the Profession" on pages 66–68 of your *Psychological Testing and Assessment* text as well as the Code. While the Code addresses the roles of test developers and test users separately, you will be following the standards for test users and, specifically, the section on selecting tests (refer page 5). There are nine elements to consider when selecting a test. You will focus on the first four of these elements for this assignment.

In your paper:

- Identify a test category that is relevant to your academic and professional career goals. The List of Tests by Type document identifies the 11 categories you may choose from. They include (1) intelligence/cognitive abilities, (2) achievement/aptitude, (3) personality, (4) behavior, (5) adaptive behavior, (6) neuropsychological, (7) career/business/organization, (8) autism, (9) depression, (10) preschool, and (11) behavior analytic skill assessments.
- Select three tests from a single category using the List of Tests by Type document. (**Note:** If you have an interest in a particular test that is not on this list, then you may, as an option, submit a request to your instructor to include it in your first assignment *with two other tests on the list in the*

same category. Your instructor will review it and determine if you may proceed with including that test in your assignment or recommend that you select three tests from the list.)

- Compare and contrast these three tests according to the Code's first four elements.
 - Access the Capella library and conduct a search. Use the MMY database to locate and read a review for each test.
 - Visit the publishers' website for each test to obtain additional information.
 - Return to the Capella library to choose a database, for example, PsycINFO, PsycARTICLES, and ERIC (education research). Search for journal articles that are relevant to the four elements and each test. (See the PSY7610 Library Search Guide, linked in the resources, for search advice. An optional worksheet is also provided to you in the resources to facilitate your research and literature review.)

Instructions for the content of the paper are in the template located in the Resources. Write your assignment using the u02a1 Assignment Template [DOCX].

You may use the Optional Research Worksheet given in the resources to complete this assignment.

Additional Requirements

Your paper should meet the following requirements:

- **References:** A minimum of nine references are required for this assignment. These resources may include all of the reference sources identified in your *Psychological Testing and Assessment* text (pages 29–35), but must include:
 - Three MMY test reviews (one for each test).
 - Three test publisher websites (one for each test).
 - Three journal articles (one for each test).
- **Length of paper:** A minimum of five pages of content, not including the title page or references (an abstract is not required).
- **APA format:** Current APA format and style is required throughout. Be sure to use correct format and style for each respective type of reference, for example, Web site versus journal).

Note: The articles you need to complete this assignment should be available inside the library collection. In future courses, you may use the Capella library's Interlibrary Loan service to obtain articles outside of the collection, but you should not have to use the service for this course. In the event that you cannot find articles covering a newer test edition, please refer to the List of Tests by Type document in the resources. Note which tests have been designated as acceptable for searching prior test editions.

Note: Your instructor may use the Writing Feedback Tool to provide feedback on your writing. In the tool, click the linked resources for helpful writing information.

Reference

Joint Committee on Testing Practices. (2004). Code of fair testing practices in education. Retrieved from <http://www.apa.org/science/programs/testing/fair-testing.pdf>

Course Resources

[u02a1 Assignment Template \[DOCX\]](#)

[APA Style and Format](#)

[Database Guide: Mental Measurements Yearbook](#)

[List of Tests by Type \[DOCX\]](#)

[Optional Research Worksheet \[DOCX\]](#)

[PSY7610 Library Research Guide](#)

[Using a *Mental Measurements Yearbook* Review to Evaluate a Test](#)

[Writing Feedback Tool](#)

Introduction

Have you watched the 1960s television program, *The Twilight Zone*? The host, Rod Serling, always started the show with "Imagine if you will . . ." For this exercise, imagine if you will the following: You need to measure, as accurately as possible, a dimension over a period of time and you must choose one of the following: (1) a ruler made of warped wood, (2) a ruler made of soft clay, or a (3) ruler made of ice. It is easy to imagine the problems that present themselves with attempting to perform accurate measurements with these types of rulers. You might reject a warped ruler because it is not straight, or the clay ruler because it is too soft, but then you would be left with the ice ruler, which would not be a good long-term tool, especially if you wanted to measure something over a period of days, months, or even years.

Getting Stuck in the Zone

One can quickly imagine the problems that present themselves with attempting to perform measurements with the different types of rulers provided to you in *The Twilight Zone* story above. How accurate would the three versions be for you as the ruler's user? Even if you were to reject a warped ruler as having some errors inherent in its design due to construction, and reject the soft clay ruler as creating errors when you attempt to use it and apply or administer it to whatever dimension or object you are measuring, you would be left with the ice ruler. How useful would be a ruler made of ice be over a long period of time, say if you wanted to measure something over a period of days, months, or even years?

Unfortunately, you are stuck in the zone since none of the measurements you were provided would be consistent or dependable, or as we say in psychometrics, they would not be consistent or reliable. Each measurement has error that would result in their use, although each type of measurement might have different degrees of such error. The less error observed in the measurement, then the greater the consistency in the measurement, and the greater the reliability.

Reliability

You can imagine, then, how important it is that we are able to understand, and interpret different sources of error and the measures of reliability associated with them. So, we have an entire unit dedicated to the sole concept of reliability. In this unit, you will learn about sources of error variance that occur during test construction, test administration, and test scoring and interpreting. You will learn about specific measures or statistical procedures that address different types of reliability and the sources of error variance that exists in a test.

Additionally, you will be researching literature for the standardized test you selected at the end of Unit 2 as your focus for the course project.

Learning Activities

u03s1 - Studies

Key Concepts

Review [Unit 3 Key Concepts \[PDF\]](#).

Readings

Use your *Psychological Testing and Assessment* text to read the following:

- Chapter 5, "Reliability," pages 141–174.

Use your *Standards for Educational and Psychological Testing* text to read the following:

- Chapter 2, "Reliability/Precision and Errors of Measurement," pages 33–47.

Review the following:

- [List of Tests by Type \[DOCX\]](#).
 - Explore the list for potential selections due in Unit 4. (See the Unit 2 assignment and review the course project information.)

Media

Complete the following Capella multimedia:

- [Reliability](#).
- [Reliability Exercise](#).

u03s1 - Learning Components

- Research the factors affecting test quality and fairness.
- Define test reliability.
- Define key concepts for quiz preparation.

u03d1 - Is the Measure of Consistency a State of Mind?

In your unit readings from the *Psychological Testing and Assessment* text, you read about three sources of error variance that occur in testing and assessment. These include test construction, test administration, and test scoring and interpretation. Additionally, other sources of error may be suspect. You were also introduced to reliability coefficients, which provide information about these sources of error variance on a test (see Table 5-4).

The following reliability coefficients were obtained from studies on a new test, THING, purporting to measure a new construct (that is, Something). Alternate forms of the test were also developed and examined in subsequent studies published in the peer-reviewed journals. The alternate test forms were titled THING 1 and THING 2. (Remember to refer back to your *Psychological Testing and Assessment* text for information about using and interpreting a coefficient of reliability.)

- Internal consistency reliability coefficient = .92
- Alternate forms reliability coefficient = .82
- Test-retest reliability coefficient = .50

In your post:

- Describe what these scores mean.
- Interpret these results individually in terms of the information they provide on sources of error variance.
- Synthesize all of these interpretations into a final evaluation about this test's utility or usefulness.
- Explain whether these data are acceptable.
- Explain under what conditions they may not be acceptable and under what conditions, if any, they may be appropriate.

Response Guidelines

Respond to the posts of at least two other learners.

Course Resources

Psychology Attributes and Evaluation of Discussion Contributions

u03d1 - Learning Components

- Define test reliability.
- Apply writing and citations skills appropriate for doctoral-level learners.
- Explain statistical knowledge needed to use and interpret tests.
- Analyze peer-reviewed literature on reliability.

Unit 4 >> Test Psychometrics: Validity

Introduction

The concept of validity was formulated by Kelley (1927) who stated that a test is valid if it measures what it claims to measure.

What Is Valid?

Over time, different categories of validity or evidence for a test's validity have been identified. Different conceptualizations or models of viewing these categories of validity have also developed. In this unit, you will be reading about two of these models. First, there is a classical conception of validity called *trinitarian* for its focus on three specific categories. Second, a unitary view of validity includes all of the categories of evidence for validity from the classical conception, but takes into consideration a multitude of implications of test scores. You will discuss and debate these two models of conceptualizing a test's validity in the first discussion in this unit.

Who would have thought the intellectual investigation of something like test validity could stir such emotion? You will read two differing perspectives on these models in this unit: Guion's 1980 defense of a trinitarian view of validity contrasts with Messick's 1995 defense of a unitary view. Please note this

when you get to the point in your *Psychological Testing and Assessment* text where these differing views are discussed. One author is described as going as far as offering condemnation. Please note that the discussion or debate in this unit does not have to go as far as that.

Additionally, you will be researching literature for the standardized test that you selected at the end of Unit 2 as your focus for the course project.

Reference

Kelley, T. L. (1927). *Interpretation of educational measurements*. New York, NY: Macmillan.

Learning Activities

u04s1 - Studies

Key Concepts

Review [Unit 4 Key Concepts \[PDF\]](#).

Readings

Use your *Psychological Testing and Assessment* text to read or review the following:

- Chapter 6, "Validity," pages 175–199.
- Information on norms on pages 125–139.
- Information on measures of cognitive ability and productivity on pages 548–554.

Use your *Standards for Educational and Psychological Testing* text to read the following:

- Chapter 1, "Foundations," pages 1–32.
- Chapter 3, "Fairness in Testing," pages 49–74.

Use the Capella library to read the following:

- Guion, R. M. (1980). On trinitarian doctrines of validity. *Professional Psychology: Research and Practice*, 11(3), 385–398.
- Messick, S. (1995). Validity of psychological assessment: Validation of inferences from persons' responses and performances as scientific inquiry into score meaning. *American Psychologist*, 50(9), 741–749.

Media

Complete the following Capella multimedia:

- [Validity](#).
- [Validity Exercise](#).

u04s1 - Learning Components

- Research the factors affecting test quality and fairness.
- Describe the characteristics of fair test items and procedures.
- Define validity.
- Define key concepts for quiz preparation.

u04s2 - Assignment: Preparation

In the Unit 5 assignment, you will evaluate the technical quality of the test you have chosen to focus on for your course project. You may want to take the time to read through assignment instructions and review the Evaluation of Technical Quality Scoring Guide now to understand the requirements and grading criteria and to plan adequate time to prepare for and complete the assignment.

Important: A minimum of four peer-reviewed journal article references are required for this assignment. Textbooks, web pages, literature reviews, and MMY reviews do not count for these references.

APA Style

Refer to this resource for guidance on APA style and format as you prepare all of your assignments for this course.

- American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

u04d1 - Validity: The Test Doth Purport Too Much, Methinks

In your unit readings, you read about two approaches or models of validity—trinitarian and unitary. In some ways, these two models are competing views of gathering evidence for a test's validity. In other ways, the two approaches have an overlap of elements.

In your post:

- Compare and contrast these two models in terms of how they conceptualize validity.
- Identify at least one advantage and disadvantage of each model.
- Decide which model appears to be the most valid for determining validity of a test.
- Explain your decision in terms of the implications for decision making about a test's validity.

Be sure to include citations from Guion's 1980 article, "On Trinitarian Doctrines of Validity," and Messick's 1995 article, "Validity of Psychological Assessment: Validation of Inferences From Persons' Responses and Performances As Scientific Inquiry Into Score Meaning."

Response Guidelines

Respond to the posts of at least two other learners.

Course Resources

Psychology Attributes and Evaluation of Discussion Contributions

[On Trinitarian Doctrines of Validity](#)

[Validity of Psychological Assessment](#)

u04d1 - Learning Components

- Analyze peer-reviewed literature on validity.
- Apply writing and citations skills appropriate for doctoral-level learners.

Unit 5 >> Test Utility and Development and Item Analysis

Introduction

Do we have a bias about the existence of test bias? Is that fair?

Test Bias

These two terms are too often used synonymously when many people mean fairness but say bias, and vice versa. Misconceptions about what makes a test unbiased or unfair abound. Test bias is a statistical property of a test and involves a deficiency in the test itself that results in discrepant scores or meanings, depending on the test taker's identifiable subgroup. Subsequently, test bias can exist in, and impact, any of the categories of validity that you read about in the last unit. Remember that validity deals with the evidence if a test measures what it purports to measure. If a test yields discrepant meanings for different members of an identified subgroup, then bias may be suspected. As noted above, however, bias can be examined through statistical means.

With statistical procedures, then, publishers of tests can perform appropriate checks for the existence of bias prior to publication. Such procedures now use item selection methods based on either classical test theory (CTT) or item response theory (IRT). Further, consistent with misconceptions you will read about in your *Psychological Testing and Assessment* text, most well-constructed standardized psychological and educational tests appear to be reasonably unbiased for the subgroups investigated in the research. This clearly is an advancement from much earlier versions of standardized tests.

Test Fairness

Moving beyond bias, but without ongoing vigilance, we can turn our focus to test fairness. When discussions about a test involve values and differences of opinions about its use across groups based on their opposing points of view, then one is talking about fairness. The focus here becomes one of the tests being used in an impartial, just, and equitable way.

Psychometrics has been utilized as a means to prevent or remedy issues of test fairness. Similar to bias, methodologies from CTT or IRT have been employed to deal with this issue. In the first discussion in this unit, you will discuss how CTT and IRT have made attempts to address issues of test fairness.

Learning Activities

u05s1 - Studies

Key Concepts

Review [Unit 5 Key Concepts \[PDF\]](#).

Readings

Use your *Psychological Testing and Assessment* text to read or review the following:

- Chapter 7, "Utility," pages 200–228.
- Chapter 8, "Test Development," pages 229–272.
- Information on validity, bias, and fairness on pages 192–199.

Use your *Standards for Educational and Psychological Testing* text to read the following:

- Chapter 4, "Test Design and Development," pages 75–94.

Use the Capella library to review the following:

- Embretson, S. E. (2004). [The second century of ability testing: Some predictions and speculations](#). *Measurement: Interdisciplinary Research and Perspectives*, 2(1), 1–32.

Use the Internet to review the following:

- Joint Committee on Testing Practices. (2004). [Code of fair testing practices in education \[PDF\]](#). Retrieved from <http://www.apa.org/science/programs/testing/fair-testing.pdf>
 - Page 5.

u05s1 - Learning Components

- Explain how testing may have utility in settings of use.
- Identify purposes and types of testing.
- Research the development of tests and testing.
- Define key concepts for quiz preparation.

u05d1 - Beyond Bias: Methods for Fairness in Testing

In the unit readings from your *Psychological Testing and Assessment* text, you read about misconceptions regarding test bias and test fairness—two terms that are often incorrectly considered synonymous. While questions regarding test bias have been addressed through technical means, issues with test fairness are tied to values. The text attempts to define test fairness in a psychometric context and provides eight techniques for preventing or remedying adverse impact on one or another group (see page 209). One of these techniques included differential cutoffs. Furthermore, you were introduced to a variety of methods for setting cut scores. These methods have been based on either CTT or IRT.

For this discussion, synthesize the information you learned about these two theories and respective methods. In your post:

- Determine which one is preferential for responding to questions about a test's fairness.
- Identify at least two advantages and two disadvantages in using each theory, citing appropriate American Educational Research Association (AERA) standards from your readings.
- Defend your preference in terms of the methods used within each theory and how they apply to concepts of fairness across groups. Essentially, how does it best address test fairness?
- Describe how advances in technology are improving the process of test development and inclusion of appropriate items.

Response Guidelines

Respond to the posts of at least two other learners.

Course Resources

Psychology Attributes and Evaluation of Discussion Contributions

u05d1 - Learning Components

- Describe the characteristics of fair test items and procedures.
- Apply writing and citations skills appropriate for doctoral-level learners.
- Define roles of technology in testing.

u05a1 - Evaluation of Technical Quality

In Unit 2, you selected one standardized test that has relevancy to your academic and professional goals to be the focus of your course project. Your Unit 2 assignment focused on the first four elements of the Code for selecting a test. For this assignment, you will complete a deeper analysis of the technical quality of your selected test by focusing on the fifth element of the Code, which states that the test user will "evaluate evidence of the technical quality of the test provided by the test developer and any independent reviews." To complete this assignment, you will draw upon the knowledge you gained in Units 3 and 4 about psychometrics in general and reliability and validity in particular.

For this assignment, use the test you selected for your assignment in Unit 2. Locate and summarize a minimum of four articles related to the technical qualities of the selected test. You are encouraged to use the PSY7610 Library Research Guide, linked in the resources, to assist your search.

For *each* article:

- List the APA reference for each journal article (a minimum of four).
- Identify if the article addresses reliability or validity.
- Discuss if the article addresses sources of error variance, reliability estimates, evidence of validity, or bias and fairness.
- Identify the specific type of reliability or validity (for example, test-retest reliability, predictive validity, et cetera).
- Identify the overall results of the research, including any psychometric or statistical outcome.

Guidelines for Selecting the Literature

Use the most current sources you can find. Do not use sources older than 8 years. (You may cite older sources if they are classics, if you want to show the chronology of something, or if you have another good reason. If you choose to use older sources, you will need to explain why.) Use current, peer-reviewed journal articles. Do not use sources without an author or a publication date. Do not use quotes; use only your own words. Please see the Academic Integrity and Plagiarism link in the resources for concerns with high content matching in papers. Evaluate whether the results support the use of your test as appropriate for your field and populations to be served.

Note: The articles you need to complete this assignment should be available inside the library collection. In future courses, you may use the Capella library's Interlibrary Loan service to obtain articles outside of the collection, but you should not have to use the service for this course. In the event that you cannot find articles covering a newer test edition, please refer to the List of Tests by Type document, linked in the resources. Note which tests have been designated as acceptable for searching prior test editions.

Instructions for the content of the paper are in the template located in the Resources. Write your assignment using the u05a1 Assignment Template [DOCX].

Additional Requirements

Your paper should meet the following requirements:

- **References:** A minimum of four journal articles (textbooks, web pages, literature reviews, and the MMY book reviews do not count for these references).

- **Length of paper:** Evaluation must be at least five pages in length for content (not including title page, abstract, or references).

Note: Your instructor may use the Writing Feedback Tool to provide feedback on your writing. In the tool, click the linked resources for helpful writing information.

Reference

Joint Committee on Testing Practices. (2004). Code of fair testing practices in education. Retrieved from <http://www.apa.org/science/programs/testing/fair-testing.pdf>

Course Resources

[u05a1 Assignment Template \[DOCX\]](#)

[APA Style and Format](#)

[Academic Honesty & APA Style and Formatting](#)

[The Annotated Bibliography](#)

[Database Guide: Mental Measurements Yearbook](#)

[PSY7610 Library Research Guide](#)

[Using a *Mental Measurements Yearbook* Review to Evaluate a Test](#)

[Writing Feedback Tool](#)

Unit 6 >> Using Tests: Intelligence and Its Measurement

Introduction

Quick! Answer this question: Are humans getting smarter or dumber with time?

What if we took two laboratory mice and genetically enhanced them for increased intelligence? Would genetic alterations account for a consistent increase in those mice? If an increase in intelligence is occurring over time, then is it a result of heredity? While this did not work out too well for both fictional characters of Pinky and the Brain (1990s), genetically enhanced laboratory mice have, indeed, been created with increased cognitive skills. Study coauthor, Ann Graybiel, a neuroscientist at MIT and the McGovern Institute for Brain Research, examined how genetically engineered mice carrying a gene from human brains outperformed on mazes compared to those mice in the control group. How much does heredity account for increases in IQ on standardized normed tests? Good question.

Is Intelligence Increasing?

You will explore the question if intelligence is really increasing over time in the text readings in this unit. Additionally, you will have the opportunity to voice your opinion to your classmates on this topic during one of the discussions. As you can imagine, it may not be that easy a question to answer although we get to learn about a good debate on this topic in your *Psychological Testing and Assessment* text between Flynn and Cattell. Their debate does not get into condemning each other (like the trinitarian versus unitary validity opponents), but gets heated with deep analyses of intelligence tests, themselves, and the constructs they purport to measure.

In this unit, you will read about a variety of those theories of intelligence, which will aid you in the Flynn effect discussion with your classmates. The discussion will rewind test history to the year 1927 with the development of a two-factor theory of intelligence. Coincidentally, 1927 was the same year that T. L. Kelley formulated the concept of test validity as having the test measure what it claims to measure. Your *Psychological Testing and Assessment* text will walk you through the years to 1997 and the ever-changing and expanding models of intelligence, which subsequently impacted the tests that were constructed. You will have the opportunity in the first discussion in this unit to identify which one you find yourself most affiliated with in the context or your professional goals. As you will read, 1997 was not the end, as the models and the standardized test continue to be modified based on new conceptualizations and technology.

New theories of intelligence and cognitive abilities will continue to inspire and drive revisions of standardized tests. As a new test or revision of existing one gets released, it will be important to monitor for the trend of intelligence scores rising across the world, or if there are other plausible explanations. Perhaps, you will be someone that impacts the world of intelligence theories and models for testing cognitive abilities.

Learning Activities

u06s1 - Studies

Key Concepts

Review [Unit 6 Key Concepts \[PDF\]](#).

Readings

Use your *Psychological Testing and Assessment* text to read the following:

- Chapter 9, "Intelligence and Its Measurement," pages 273– 316.

Media

Complete the following Capella multimedia:

- [Woodcock Johnson IV Tests of Cognitive Abilities](#).

Article Search

Locate and review one journal article on the Flynn effect in preparation for the second discussion in this unit. The Flynn effect is discussed in your *Psychological Testing and Assessment* text on pages 306–309. Use [PSY7610 Library Research Guide](#) to support your search for the journal article.

u06s1 - Learning Components

- Identify purposes and types of testing.
- Describe the characteristics of fair test items and procedures.
- Investigate testing from the perspective of test takers.
- Define key concepts for quiz preparation.

u06s2 - Assignment Preparation

In the Unit 7 assignment, you will evaluate test materials and procedures of the test you have chosen to focus on for your course project. You may want to take the time to read through the assignment instructions, the Evaluation of Test Materials and Procedures Scoring Guide, and to plan adequate time to prepare for and complete the assignment.

Important: A minimum of five references are required for this assignment, three of which must be peer-reviewed journal articles.

APA Style

Refer to this resource for guidance on APA style and format as you prepare all of your assignments for this course.

- American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

u06s2 - Learning Components

- Research the factors affecting test quality and fairness.
- Describe the characteristics of fair test items and procedures.

u06d1 - Intelligence: From Theory to Test

In this unit, you are introduced to a variety of theories of intelligence, including Spearman's two-factor theory (1927), Cattell-Horn's two-factor theory (1966), Luria's information processing approach (1966), Cattell-Horn and Carroll's CHC model (1997), and Carroll's three-stratum theory (1997).

In your post:

- Describe how these theories differ in regard to the ever-reversing role of general intellectual ability factor (*g*).
- Explain how these theories are relied upon in each of the following current tests that you also read about in this unit. Please note that some of these tests may now rely on more than one theory, or a theory different than the original versions of the same test. Subsequently, you will need to address such multiple contributions and only for the versions listed below (for example, fifth edition).
 - Wechsler Intelligence Scale for Children, fourth and fifth editions.
 - Kaufman Assessment Battery for Children, second edition.
 - Stanford-Binet Intelligence Scales, fifth edition.
 - Woodcock-Johnson Tests of Cognitive Abilities, third or fourth editions.
- Explain your thoughts regarding an intelligence test that has a dual theoretical basis, based on your readings and review of the theoretical influences on these tests. Explain your position by including consideration of validity.
- Explain which theory of intelligence you find yourself most affiliated with in the context of your professional goals.
- Explain how your selected theoretical model aligns with your interests and career.

Response Guidelines

Respond to the posts of at least two other learners.

Course Resources

Psychology Attributes and Evaluation of Discussion Contributions

u06d1 - Learning Components

- Describe applications of theory in testing.
- Apply writing and citations skills appropriate for doctoral-level learners.

Unit 7 >> Using Tests: Achievement and Aptitude Tests

Introduction

Overheard in an elementary school faculty lounge:

Question: Are you using CBAs and CBMs as part of PM for RTI and subsequent a SLD ID?

Answer: No, we aren't an RTI state but still do PSW using batteries to ID SLD.

Yes, you too, can talk with these many acronyms compressed in a single sentence in one short week here in this course. Although, if you are working in the schools now, you likely recognize most of these already, if not talking this way even when you go home.

To help you along, here is a quick list of survival terms for reading this chapter:

- CBA – Curriculum-based assessment.
- CBM – Curriculum-based measurement.
- PM – Progress monitoring.
- RTI – Response to intervention.
- SLD – Specific learning disability.
- ID – Identification.
- PSW – Pattern of strengths and weaknesses.

Standardized and Nonstandardized Tests

In this unit, you will learn about a variety of standardized and nonstandardized educational achievement tests, aptitude tests, diagnostic tests, test batteries, and other tools of assessment. The choice of tests being used may significantly differ from district to district across the country for a variety of reason. One variable that may account of a major portion of this range is the change in the Individual With Disabilities Education Act (IDEA) of 2004. With that change, school districts were able to transition to an RTI model. However, many important questions have surfaced about RTI's

implementation. Further, questions remain about the limitations on information this model provides, or does not provide, for identifying why, for example, a learning disability exists.

Your discussion in this unit will draw from this variety of tests and ask you to synthesize them in the context of the identification of disabilities. Further, it will be important to identify relevant standards for educational testing and assessment for any guidance they may offer this model impacting schools.

Additionally, you will be researching literature for the standardized test that you selected at the end of Unit 2 as your focus for the course project.

Learning Activities

u07s1 - Studies

Key Concepts

Review [Unit 7 Key Concepts \[PDF\]](#).

Readings

Use your *Psychological Testing and Assessment* text to review the following:

- Chapter 10, "Assessment for Education," pages 317–353.

Use your *Standards for Educational and Psychological Testing* text to read or review the following:

- Chapter 6, "Test Administration, Scoring, Reporting, and Interpretation," pages 111–119.
- Chapter 7, "Supporting Documentation for Tests," pages 123–129.
- Chapter 12, "Educational Testing and Assessment," pages 183–202.
- Chapter 3, "Fairness in Testing," pages 49–72.

Use the Internet to read the following:

- Joint Committee on Testing Practices. (2004). [Code of fair testing practices in education \[PDF\]](http://www.apa.org/science/programs/testing/fair-testing.pdf). Retrieved from <http://www.apa.org/science/programs/testing/fair-testing.pdf>
 - Page 5.

u07s1 - Learning Components

- Analyze applications of testing for different purposes and populations.
- Describe the characteristics of fair test items and procedures.
- Define key concepts for quiz preparation.
- Define the elements of the Code of Fair Testing Practices in Education.

u07d1 - Using the Right Tool for the Right Job

In this unit, you read about changes over time in the procedures for evaluating SLDs. Recently, most states changed their existing rules and regulations to include an RTI model, which identifies three levels of intervention or teaching to facilitate learning for all students. Subsequently, it became important to determine tests or assessments, which would provide monitoring or progress within each level of instructional intervention. However, this model for teaching has now been utilized as a method for identifying students as having a learning disability.

You were also introduced to a number of diagnostic measures for monitoring progress, which included nationally standardized tests, as well as locally normed standardized measurement procedures called CBM. In addition, the authors of your *Psychological Testing and Assessment* text presented several questions or concerns regarding the use of diagnostic tests when working with individuals suspected as having a learning disability.

Based on your unit readings, complete the following for this discussion:

- Outline the concerns that may exist with using an RTI model when identifying students suspected as having a learning disability.
- Identify some of the limitations or concerns that may result from using diagnostic tests (both nationally standardized and CBM) when working with all students, as well as students suspected as having a learning disability.
- Identify some of the strengths in using these tests or measurements for progress monitoring.
- Summarize this information and present a recommendation for the use of the RTI model, nationally standardized diagnostic tests, locally normed CBM, and intelligence and academic achievement tests, and their role in monitoring educational progress and identification of a learning disability.

Be sure to cite specific AERA standards for educational testing and assessment that have direct bearing on this discussion; in particular, assessments serving multiple purposes, and informing teaching and learning.

Response Guidelines

Respond to the posts of at least two other learners.

Course Resources

Psychology Attributes and Evaluation of Discussion Contributions

u07d1 - Learning Components

- Analyze applications of testing for different purposes and populations.
- Investigate testing from the perspective of test takers.
- Apply writing and citations skills appropriate for doctoral-level learners.

u07a1 - Evaluation of Test Materials and Procedures

In Unit 2, you selected one standardized test that has relevancy to your academic and professional goal and focused on the first four elements of the Code for selecting a test. In Unit 5, you focused on the fifth element of the Code, which involved analyzing the evidence for technical quality of your selected test.

In Chapters 7 and 8 of your *Psychological Testing and Assessment* text, you have been learning about test utility, test development, item analysis, and using tests in a variety of settings and with a variety of test takers. In this assignment, you will apply those concepts to your selected test for the Code's sixth, seventh, and eighth elements. The Code (2004) states that test users, "(6) evaluate representative samples of test questions or practice tests, directions, answer sheets, manuals, and score reports before selecting a test; (7) evaluate procedures and materials used by the test developers, as well as the resulting test, to ensure that potentially offensive content or language is avoided; and (8) select tests with appropriately modified forms or administration procedures for test takers with disabilities who need special accommodations."

For this assignment, locate a minimum of five resources (a minimum three peer-reviewed journal articles) pertaining to your test's construction, item development, procedures utilized in construction to minimize offensive content, and provisions of modifications and accommodations for test takers. You will not be required or need to have a copy of your test to complete this assignment. You may use many different types of references and sources to obtain this information about your test. These references may include journal articles, literature reviews, MMY reviews, and publisher websites.

Information gathering and evaluation of these elements may require a keyword search within each relevant review and research article. It may be helpful to do keyword searches within those documents with the following words: *format*, *fair*, *fairness*, *bias*, *appropriate*, *accommodations*, *modifications*, and *computer* or *computer assisted*. Subsequently, this particular assignment requires a deeper search and provides a broader range of sources to fulfill the minimum references. In almost all cases, you will be able to locate some level of information on these elements.

For some newer test editions, literature may be scarce. Refer back to the Lists of Tests by Type document to see which tests are approved for supplementation with articles that address earlier editions of the tests. If the "Combined Review Allowed" column is marked "Yes," you can supplement your review with articles addressing the designated prior version of the test.

Note: In future courses, you may use the Capella library's Interlibrary Loan service to obtain articles outside of the collection, but you should not have to use the service for this course. In the event that you cannot find articles covering a newer test edition, please refer to the List of Tests by Type document in the resources. Note which tests have been designated as acceptable for searching prior test editions.

If you are struggling with locating sufficient information about a particular test in regard to an element in this assignment, then you will need to cite the references or reviews involved in your search and identify this element as *problematic* for your selected test as it lacks sufficient documentation in the literature for this code or standard.

Instructions for the content of the paper are in the template located in the Resources. Write your assignment using the u07a1 Assignment Template [DOCX].

Additional Requirements

Your paper should meet the following requirements:

- **References:** A minimum of five references (a minimum of three peer-reviewed journal articles among the five).
- **Length of paper:** At least five pages (not including title page, abstract, or references).

Note: Your instructor may use the Writing Feedback Tool to provide feedback on your writing. In the tool, click the linked resources for helpful writing information.

Reference

Joint Committee on Testing Practices. (2004). Code of fair testing practices in education. Retrieved from <http://www.apa.org/science/programs/testing/fair-testing.pdf>

Course Resources

u07a1 Assignment Template [DOCX]

[APA Style and Format](#)

Code of Fair Testing Practices in Education [PDF]

[Writing Feedback Tool](#)

Unit 8 >> Using Tests: Personality and Behavior

Introduction

I try to stay in a constant state of confusion just because of the expression it leaves on my face.

Johnny Depp

Apparently, Mr. Depp is striving to turn his state into a trait; that is, something constant instead of fleeting. However, he may be better advised for a variety of social reasons as well as avoidance of facial wrinkles, to strive for a conversion of mindfulness from state to trait. Strange as it may seem, no consensus exists for definitions of the following words: personality, trait or enduring predispositions, type, and state or psychodynamic predispositions.

Personality Tests

In this unit, you will read about the construction of personality tests, and methods of personality assessment, including objective, projective, and behavioral methods. To begin, you will read about those states and traits, and personality types. As you reach the section of the text on personality types, you may want to pause and complete the media exercise on the Personality Inventory Questionnaire (PIQ), which will indicate your amount or degree of Type A personality.

Stop here and complete the following media piece from this unit's first study:

- Personal Inventory Questionnaire.

Hopefully, you took the time to complete the PIQ before continuing with this introduction.

Based on your responses and the score you received. Do you think the Type A personality score is accurate? Inaccurate? If you answered the same questions tomorrow, or next week, would you respond the same way? Would your score change a little or significantly? Your responses may indicate whether you agree that the PIQ is assessing a trait or type versus something more transient like a state.

This experience is important to take into consideration as your readings move into the methods of personality test construction. In particular, you will read about the creation of and interpretation of validity scales on personality tests. The unit discussion focuses on the use of validity scales.

Remember that many of the constructs in personality do not have consensus on their definitions. Further, some tests may be questioned if they are tapping into states while also attempting to assert validity such as lie scales. Do the validity scales have validity? Do these scales measure what they purport to measure on individuals completing the instrument?

Learning Activities

u08s1 - Studies

Key Concepts

Review [Unit 8 Key Concepts \[PDF\]](#).

Readings

Use your *Psychological Testing and Assessment* text to read the following:

- Chapter 11, "Personality Assessment: An Overview," pages 354–400.
- Chapter 12, "Personality Assessment Methods," pages 401–447.

Use your *Standards for Educational and Psychological Testing* text to review the following:

- Chapter 10, "Psychological Testing and Assessment," pages 151– 168.

Media

Complete the following Capella multimedia, if you have not completed it earlier:

- [Personal Inventory Questionnaire](#).

u08s1 - Learning Components

- Analyze applications of testing for different purposes and populations.
- Define key concepts for quiz preparation.

u08s2 - Assignment: Preparation

In the Unit 9 assignment, Final Analysis of a Selected Test, you will analyze the overall appropriateness of the test you have chosen to focus on for your course project. You may want to take the time to read through the assignment instructions, the Final Analysis of a Selected Test Scoring Guide, as well as the second discussion in Unit 9 now to understand the requirements and grading criteria and to plan adequate time to prepare for and complete the assignment.

Important: A minimum of nine references are required for this assignment, of which at least five must be of peer-reviewed journal articles.

APA Style

Refer to this resource for guidance on APA style and format as you prepare all of your assignments for this course.

- American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

u08s2 - Learning Components

- Research the factors affecting test quality and fairness.

u08d1 - To V or Not to V

In this unit, you are introduced to personality tests and issues with their development and use. One particular area of debate involves the inclusion of validity scales in tests of personality. While many concerns may exist, the use of such scales appears to be increasing and they continue to be utilized and interpreted.

In your post:

- Analyze how validity in psychometrics, as you explored in Unit 4, is different from a validity scale in a test of personality.
- Describe this difference in terms of their definitions.
 - Provide at least two examples of validity scales.
- Integrate and cite the AERA standards from Chapter 10, "Psychological Testing and Assessment," of your *Standards for Educational and Psychological Testing* text that directly address validity scales. Provide your interpretation of the standards and the use of validity scales.
 - Discuss if the standards permit, reject, or provide guidance on integrating such scales in a report.

- State, in your own words, how one should, or should not, proceed with validity scales.
- Cite at least one advantage and one disadvantage regarding the use of validity scales. The test authors provide several pros and cons of using validity scales in personality assessment.
 - Based on your readings, including preparation for this discussion, what is your position on this issue; that is, using and interpreting validity scales on a measure of personality?

When you post this discussion, change your subject line to Use, or Don't Use.

Response Guidelines

Respond to the posts of at least two other learners.

Course Resources

Psychology Attributes and Evaluation of Discussion Contributions

u08d1 - Learning Components

- Analyze applications of testing for different purposes and populations.
- Apply writing and citations skills appropriate for doctoral-level learners.

Unit 9 >> Using Tests: Clinical, Counseling, and Neuropsychological Assessment

Introduction

Many of the unit readings describe *The Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*, American Psychiatric Association, 2013). The media piece on the *DSM* is a visual timeline of the history of the *DSM* from 1840 through 2013. Your text provides an updated section on the making of this latest version.

You will read about different types of clinical interviews in this unit, as well as neuropsychological evaluations and interviews. Again, the media piece Neuropsychological Assessment Interview provides a video of one of these interviews taking place. It may be helpful to refer to the content of the history taking, case history, and case studies section of your text as you watch the video-recorded interview.

Clinical psychologists, counseling psychologists, and neuropsychologists may, based on their training, provide assessment using the various tests and measures covered in the class to this point. These include the intelligence, aptitude, achievement, and personality and behavior. Clinical and counseling psychologists may both focus on prevention, diagnosis, and treatment of abnormal behaviors. Subsequently, both may get referrals that include a wide range of everyday to rare, abnormal behaviors. Based on their level of training, they may engage in screenings and need to refer to a neuropsychologist when it is indicated. You will have the opportunity to engage in a discussion about such a referral. The discussion follows the initial referral to you and your plan for the evaluation, followed by the referral to the neuropsychologist. To complete the discussion fully, you will be drawing on your understanding of tests from previous units of using tests to the referral plan with the neuropsychologist and an appropriate neuropsychological test battery.

Additionally, you will be synthesizing and summarizing the literature you have obtained that were relevant for the standardized test that you selected at the end of Unit 2 as your focus for the course project.

Learning Activities

u09s1 - Studies

Key Concepts

- Review [Unit 9 Key Concepts \[PDF\]](#).

Readings

Use your *Psychological Testing and Assessment* text to read the following:

- Chapter 13, "Clinical and Counseling Assessment," pages 448–488.
- Chapter 14, "Neuropsychological Assessment," pages 489–523.

Use your *Standards for Educational and Psychological Testing* text to read the following:

- Chapter 8, "The Rights and Responsibilities of Test Takers," pages 131–138.
- Chapter 9, "The Rights and Responsibilities of Test Users," pages 139–150.

Use the Internet to review the following:

- Joint Committee on Testing Practices. (2004). *Code of fair testing practices in education* [PDF]. Retrieved from <http://www.apa.org/science/programs/testing/fair-testing.pdf>

Media

Complete the following Capella multimedia:

- [Neuropsychological Assessment Interview](#).
- [History of the DSM](#).

u09s1 - Learning Components

- Analyze applications of testing for different purposes and populations.
- Investigate testing from the perspective of test takers.
- Define key concepts for quiz preparation.

u09d1 - Andy: A Story of Screening and Referral

In this unit, you are introduced to the clinical psychology, counseling psychology, and neuropsychology branches of psychology. While these three specialty areas share overlap with goals for clients and the tools they employ in the process of assessment, they each have unique content knowledge and skill they acquired through training and provide differentiated roles and services. Subsequently, the referring concern and the needs of an individual will likely indicate which professional may be best suited to complete the assessment.

In Units 6 through 9, you have studied different applications of tests and measurements in a variety of settings and specialty areas. Regardless of the specialization, it is likely that at some time, a psychologist will have a client with one of the referral concerns including possible neurological problems. In this unit, you read about psychologists using a standard battery to gather information on an individual from a variety of tests and instruments as a means of screening for a neurological deficit. A minimum amount of testing for an adequate neuropsychological screening includes an intelligence test, a personality test, and a perceptual, motor, or memory test.

In this discussion, you will refer to the following case study to answer the questions in Part 1 and Part 2 of this activity. Andy was referred to you, a psychologist.

Case Study

Details:

- Name: Andrew "Andy" Davis.
- Age: 6 years, 0 months.
- Mother: Emily Davis, single parent.
- Sibling: Molly.
- Recent changes: Relocation to a smaller house, father abandoned family.
- Referral concerns (reported by mother): Frequent intense imaginative play, significantly reduced social interactions, talks to self in his room, destroys toys (for example, rips arms of dolls), falls frequently, and concerns that he fell down stairs (with no open head injury) at the new house (that is, Andy reported falling down and off staircase railing).

Part 1

Based on this referral information, what would be the three tests you would include in a standard battery for screening purposes that include neurological concerns?

You may use, as a guide, the same test list that was provided to you in Unit 2. You are allowed to choose tests outside of those on the list. This task will allow you to review tests covered in earlier units of this course, as well as some that are introduced in this unit. However, remember to address a minimum of three recommended areas of assessment for a screening of this type. Be sure to take into consideration age range appropriate for the tests and instruments you select. Then, provide an explanation for using each instrument and how it connects to your working hypothesis on Andy and his mother's concerns.

Part 2

You complete your evaluation using the three (or more) tests in your standard battery and obtain signs signaling that a more thorough neuropsychological evaluation is recommended. Subsequently, Andy is referred to Dr. Woody Pride, a neuropsychologist. Dr. Pride decides to administer Andy the Brief Neuropsychological Cognitive Examination (BNCE) published by WPS since it can be administered in one sitting and reports that it minimizes reading skills to complete it.

Based on this information from Dr. Pride, and after conducting your own research on this test selection, determine if this is an appropriate test to obtain additional data on Andy regarding neuropsychological concerns. If it is appropriate, then state that and provide your rationale for supporting this as a test selection. If it is not appropriate, then state that and provide your rationale for rejecting this as a test selection. Finally, regardless if you find the BNCE appropriate or not for Andy and the referring concerns, identify a second neuropsychological test that would be highly recommended for its use with Andy (you may select one from the list provided you in Unit 2, or another neuropsychological test battery).

As a test user, identify any AERA standards regarding The Rights and Responsibilities of Test Users, which are implicated in this case study of Andy Davis.

Response Guidelines

Respond to the posts of at least two other learners.

Course Resources

Psychology Attributes and Evaluation of Discussion Contributions

u09d1 - Learning Components

- Analyze applications of testing for different purposes and populations.
- Apply writing and citations skills appropriate for doctoral-level learners.

u09a1 - Final Analysis of a Selected Test

This assignment is a culmination of the previous assignments you have completed during this course. In this assignment, you will synthesize your previous research as well as conduct research on the final element in the Code, Element 9. Element 9 states that a test user, "evaluate(s) the available evidence on the performance of test takers of diverse subgroups . . . determine(s) to the extent feasible which performance differences may have been caused by factors unrelated to the skills being assessed." Together, the previous course assignments and this current one involving Element 9 will provide you with the data, research, and literature reviews across all nine elements of the Code to assist your decision-making process about the appropriate selection of a test.

For this final assignment:

- Locate reviews or research related to how Element 9 applies to your selected test. If the research or reviews do not address this element in any way, then you will need to cite the references you reviewed and note that they were lacking in addressing this element, drawing appropriate conclusions for when a test is lacking such evidence.
- Synthesize all of the data and information you gathered on your selected test throughout the course and identify highlights, both positive and negative, both advantages and disadvantages, according to all nine elements of the Code. See the link in the resources about the Meaning of Synthesis.
- Evaluate your selected test based on these data and draw a conclusion about whether it is a test that you would select, recommend, or even defend, if necessary in practice. **Note:** You should not merely copy and paste your earlier assignments for the final paper. Instead you will be synthesizing the research you completed for each element into a summary of that element that you will offer in support of your final evaluation. (For example, note that the technical quality element (that is, Element 5) will be only a synthesis and evaluation and not a repeat of the annotated bibliography you completed in Unit 5.)
 - Identify the strengths or weaknesses for each element, and determine if the information about that element supports (or opposes) the use of your selected test in the field and population to be served.
 - Incorporate recommendations about ways to improve the selected test.
 - Review all of your evaluations for each element and recommended improvements to the test, and write an overall evaluation and determination about the use of your selected test. Would you recommend this test to a school district or business that you are employed as a consultant? Would you be able to defend the use of this test in a court proceeding?

Instructions for the content of the paper are in the template located in the Resources. Write your assignment using the u09a1 Assignment Template [DOCX].

Additional Requirements

Your paper should meet the following requirements:

- **References:** A minimum of nine references. These may include journal articles, literature reviews, MMY reviews, and publisher websites. At least five of the nine references must be from professional journals. It is likely and appropriate that many of these references and citations were included in one or more of your previous assignments. Alternatively, you may want to supplement your paper with current, peer-viewed journal articles you located after completing an earlier assignment. Those inclusions would also be acceptable.
- **Length of paper:** At least six pages (not including title page, abstract, or references).

Note: The articles you need to complete this assignment should be available inside the library collection. In future courses, you may use the Capella library's Interlibrary Loan service to obtain articles outside of the collection, but you should not have to use the service for this course. In the event that you cannot find articles covering a newer test edition, please refer to the List of Tests by Type document in the resources. Note which tests have been designated as acceptable for searching prior test editions.

Note: Your instructor may use the Writing Feedback Tool to provide feedback on your writing. In the tool, click the linked resources for helpful writing information.

Reference

Joint Committee on Testing Practices. (2004). Code of fair testing practices in education. Retrieved from <http://www.apa.org/science/programs/testing/fair-testing.pdf>

Course Resources

[u09a1 Assignment Template \[DOCX\]](#)

[APA Style and Format](#)

[Code of Fair Testing Practices in Education \[PDF\]](#)

[Database Guide: Mental Measurements Yearbook](#)

[The Meaning of Synthesis](#)

[Writing Feedback Tool](#)

Unit 10 >> Using Tests: Careers, Business, Organizations, and Program Evaluations

Introduction

In this unit, you will read about a variety of tests, measures, and methods that can be utilized in a number of work settings.

You will find that there is a significant amount of overlap with tests from previous chapters as well. Aptitude, personality, interest inventories, and other tests may be utilized by psychologists to meet the needs of businesses and organizations. One widely used tool in selecting, classifying, placing, and promoting employees is the assessment center.

You will have an opportunity to create and describe a battery of tests to address several needs at a management assessment center during the unit discussion. Information contained in the Thornton and Gibbons (2009) will be useful to supplement the textbook for this discussion since you will need to describe your methods for evaluating the effectiveness of the battery of tests you put together. The discussion has greater complexity since it requires you to pull from several application chapters throughout the text, including, but not limited to Chapters 10, 11, 13, 15, and 16.

There are two media pieces that focus on the historical timeline of program evaluations, and experiences of three different perspectives of program evaluations. Additionally, you have two final exercises that you can complete in this unit. The first is a leadership self-assessment and a work card sorting exercise. You may consider these as optional extra assessments in your battery in the unit discussion, but remember you will still need to identify how you will evaluate their effectiveness as an instrument in your battery for their intended purposes. These explanations of effectiveness are not required to be lengthy expositions on procedures, but just brief statements about the pros and cons of using the test you chose and how you would evaluate if it is being effective for providing information to answer the employer's questions in the discussion example.

Reference

Thornton, G. C., III., & Gibbons, A. M. (2009). Validity of assessment centers for personnel selection. *Human Resource Management Review*, 19(3), 169–187.

Learning Activities

u10s1 - Studies

Key Concepts

Review [Unit 10 Key Concepts \[PDF\]](#).

Readings

Use your *Psychological Testing and Assessment* text to read the following:

- Chapter 15, "Assessment, Careers, and Business," pages 524–566.

Use your *Standards for Educational and Psychological Testing* text to read the following:

- Chapter 11, "Workplace Testing and Credentialing," pages 169–182.
- Chapter 13, "Uses of Tests for Program Evaluation, Policy Studies, and Accountability," pages 203–210.

Use the Capella library to read the following:

- Thornton, G. C., III., & Gibbons, A. M. (2009). [Validity of assessment centers for personnel selection](#). *Human Resource Management Review*, 19(3), 169–187.

Media

Complete the following Capella multimedia:

- [Timeline of Program Evaluation](#).
- [Program Evaluation: Experiences](#).
 - Listen to three practitioners sharing their experiences.
- [Leadership Self-Assessment](#).
- [Workplace Values Card Sort](#).

Unit 10 Graded Quiz

Complete the Unit 10 Graded Quiz. This unit's quiz includes 50 multiple-choice items. In preparation for the quiz, you may want to refer to the keyword list for all the units, including the one in this unit.

u10s1 - Learning Components

- Explain how testing may have utility in settings of use.
- Identify purposes and types of testing.
- Define key concepts for quiz preparation.

u10d1 - Program Evaluation of an Assessment Center

In this unit, you read about a variety of resources, such as tests or measures and methods, which can be utilized in a variety of work settings.

In many settings, several of these resources are incorporated into a single comprehensive design or program to address multiple issues or needs, or answer multiple questions. One such program is the assessment center, which you were introduced to in your *Psychological Testing and Assessment* text. Since an assessment center, or any similar program using multiple assessment techniques (for example, school counseling programs, and special education intervention programs), typically provides decisions regarding a number of questions, then it is important, if not a requirement, to evaluate the program for efficacy and utility.

You also learned about the concept of utility in the context of testing and assessment as applied to a single measure in Unit 5. Considerations involved in determining utility can also be applied to large-scale testing programs that employ multiple tests or measures in a selected battery.

While the authors of your *Psychological Testing and Assessment* text introduced an assessment center from 1956 that incorporated multiple tools and methods, the Thornton and Gibbons' 2009 article, "Validity of Assessment Centers for Personnel Selection," elaborated on a review of the validity of elements of contemporary assessment centers and considerations when employing them.

Instructions

For this discussion, take into consideration the factors that affect a test's utility, which was identified in your *Psychological Testing and Assessment* text as psychometric soundness, costs, and benefits (pages 212–218), as well as practical considerations when conducting utility analyses, which includes pool of applicants, complexity of the job, and use of cut scores (pages 232–235).

Identify three specific measures for a management assessment center addressing selection, placement, promotion, and career training.

1. Identify a specific instrument for each of the following areas:
 - Ability or aptitude testing.
 - Occupational career or interests.
 - Personality.
2. Discuss one advantage and one disadvantage in selecting these tests for the battery.
3. Identify at least one issue regarding factors of utility and utility analysis with this battery of tests.
4. Include how you would evaluate the effectiveness of incorporating your measures into this battery. How would you determine that the three tests are adequate for addressing the purposes of selection, placement, promotion, and career training?

Include, in your discussion, if and how computerized assessment could be incorporated into your battery or evaluation.

Response Guidelines

Respond to the post of at least one other learner.

Course Resources

Psychology Attributes and Evaluation of Discussion Contributions

[Validity of Assessment Centers for Personnel Selection](#)

u10d1 - Learning Components

- Analyze applications of testing for different purposes and populations.
- Explain how testing may have utility in settings of use.
- Apply writing and citations skills appropriate for doctoral-level learners.

u10q1 - Unit 10 Graded Quiz (Required)

Note: This is a graded quiz.

You may wish to prepare for this quiz by reviewing the key concept documents provided in each of the learning units.

Important: There is no time limit on this quiz. However, you can take the quiz only once.

