

INTRODUCTION TO ASSESSMENT DESIGN

Classroom
Assessments



Validity and
Reliability

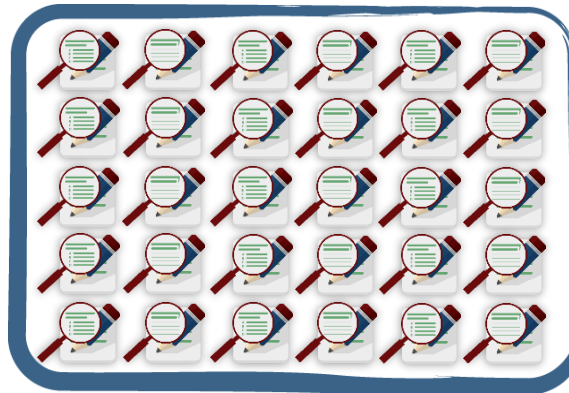


Five Elements
of Assessment
Design

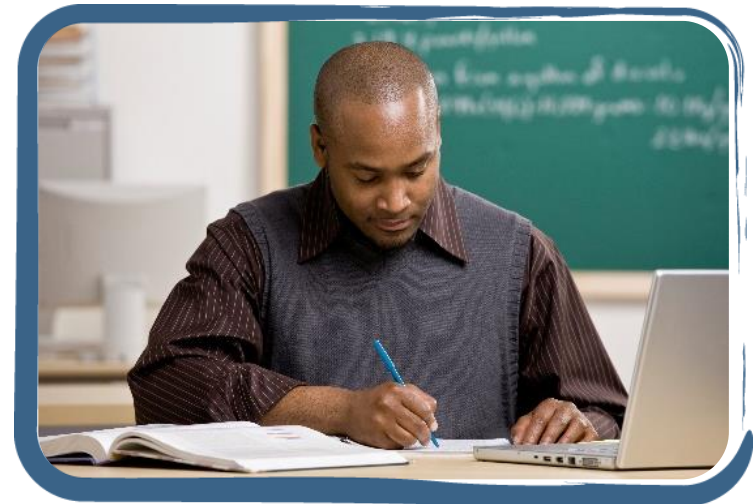


How to Use
the Assessment
Blueprint

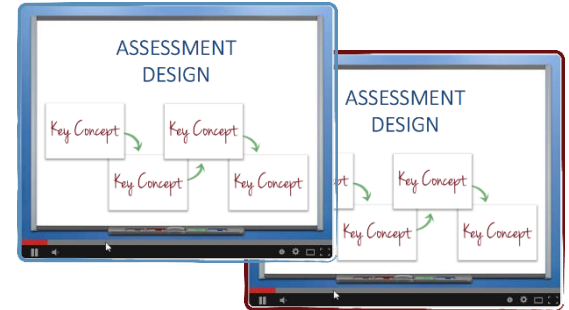
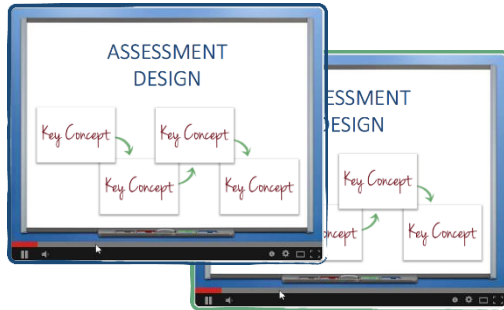
INTRODUCTION AND PURPOSE



Higher-Order
Thinking Skills?



INTRODUCTION AND PURPOSE



Classroom
Assessments



INTRODUCTION & PURPOSE

All
Teachers



INTRODUCTION AND PURPOSE

Practice Writing &
Selecting Assessments

Learn the Basics of
Assessment Design

Refine

Revisit
Assumptions



INTRODUCTION AND PURPOSE



INTRODUCTION AND PURPOSE



Define **FIVE ELEMENTS OF ASSESSMENT DESIGN AND VALIDITY AND RELIABILITY**



Explain **WHY** teachers should focus on **FIVE ELEMENTS OF ASSESSMENT DESIGN**



Explain the purpose of the **ASSESSMENT BLUEPRINT** and the **ASSESSMENT BLUEPRINT EXAMPLE**

KEY CONCEPTS

Classroom
Assessments

KEY CONCEPTS

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Assessments

Five Elements
of Assessment
Design

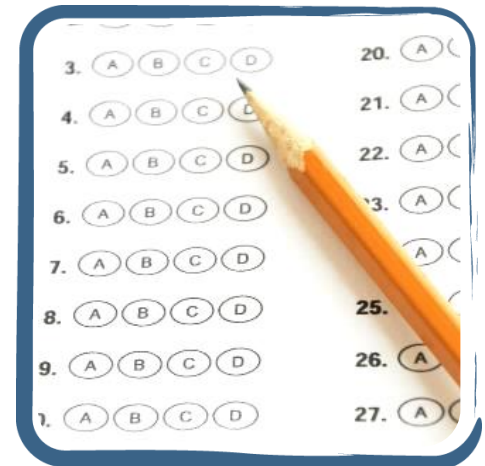
Validity and
Reliability

How to Use
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Blueprint



assessment

processes and tools that measure what students know and can do



KEY CONCEPTS

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assessment

processes and tools that measure
what students know and can do



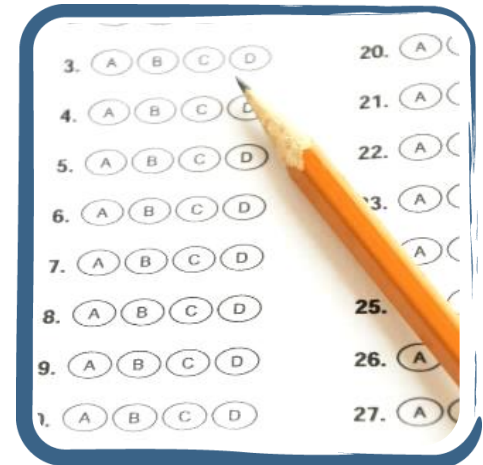
KEY CONCEPTS

Classroom
Assessments

Five Elements
of Assessment
Design

Validity and
Reliability

How to Use
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Classroom
Assessments

KEY CONCEPTS

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Five Elements
of Assessment
Design

Validity and
Reliability

How to Use
the Assessment
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assessment design

term that includes planning, writing
and selecting assessments

KEY CONCEPTS

Five Elements of Assessment Design

Sources: Kansas State Department of Education, Assessment Literacy Project; Ohio Department of Education, "Assessment Literacy: Identifying and Developing Valid and Reliable Assessments" (2013); Relay Graduate School of Education, *Designing and Evaluating Assessments* (2014); and Rhode Island Department of Education, "Deeping Assessment Literacy."

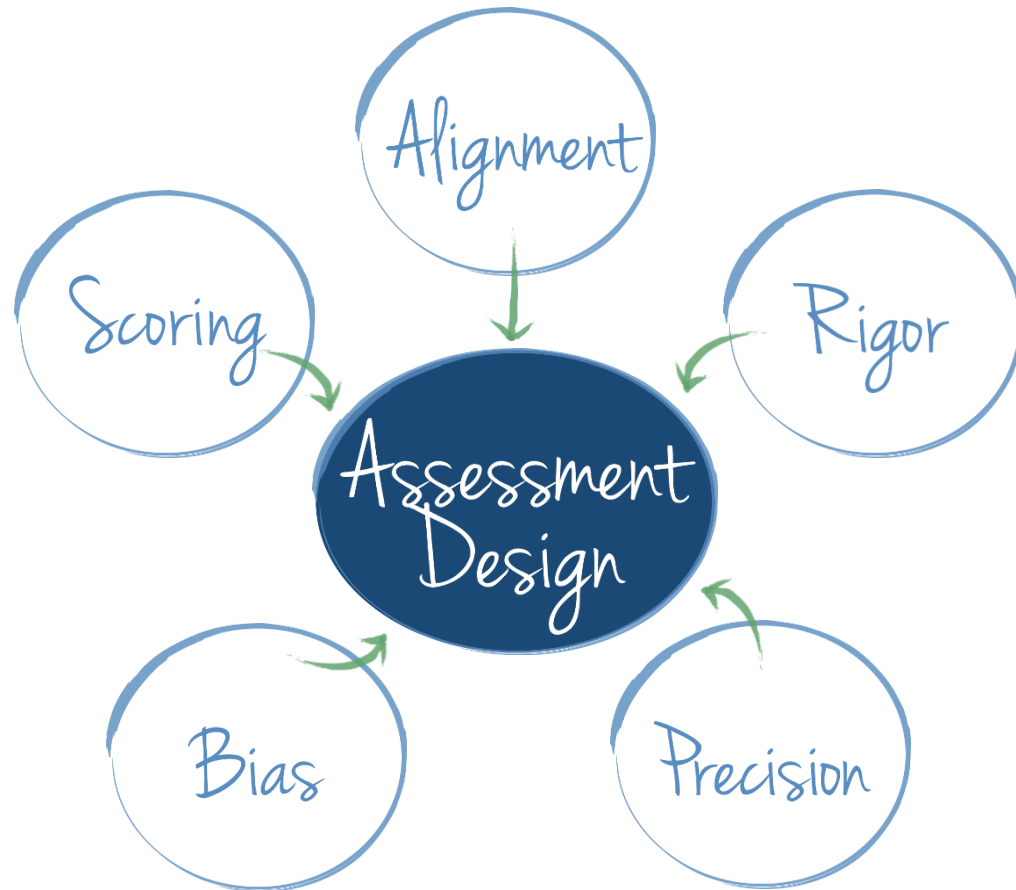
KEY CONCEPTS

Classroom
Assessments

Five Elements
of Assessment
Design

Validity and
Reliability

How to Use
the Assessment
Blueprint



Sources: To create this list, we synthesized information from several sources: Kansas State Department of Education, Assessment Literacy Project; Ohio Department of Education, "Assessment Literacy: Identifying and Developing Valid and Reliable Assessments" (2013); Relay Graduate School of Education, *Designing and Evaluating Assessments* (2014); Rhode Island Department of Education, "Deeping Assessment Literacy."

KEY CONCEPTS

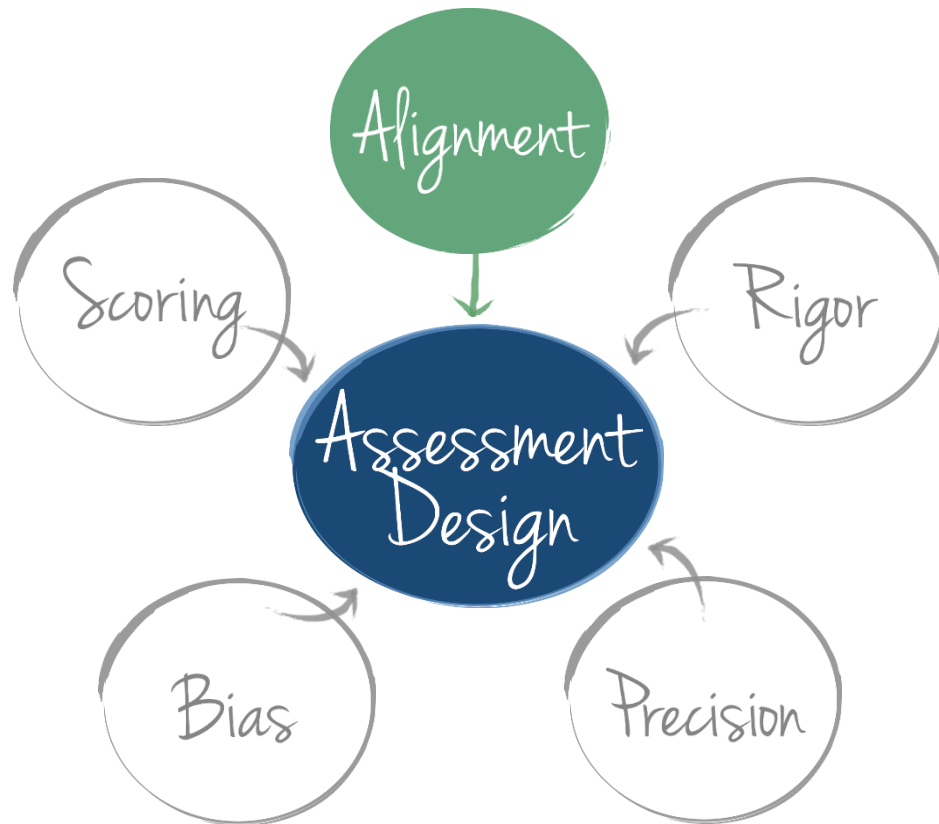
Classroom
Assessments

Five Elements
of Assessment
Design

Validity and
Reliability

How to Use
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An assessment that is **ALIGNED WITH STANDARDS** measures student performance against those standards



KEY CONCEPTS

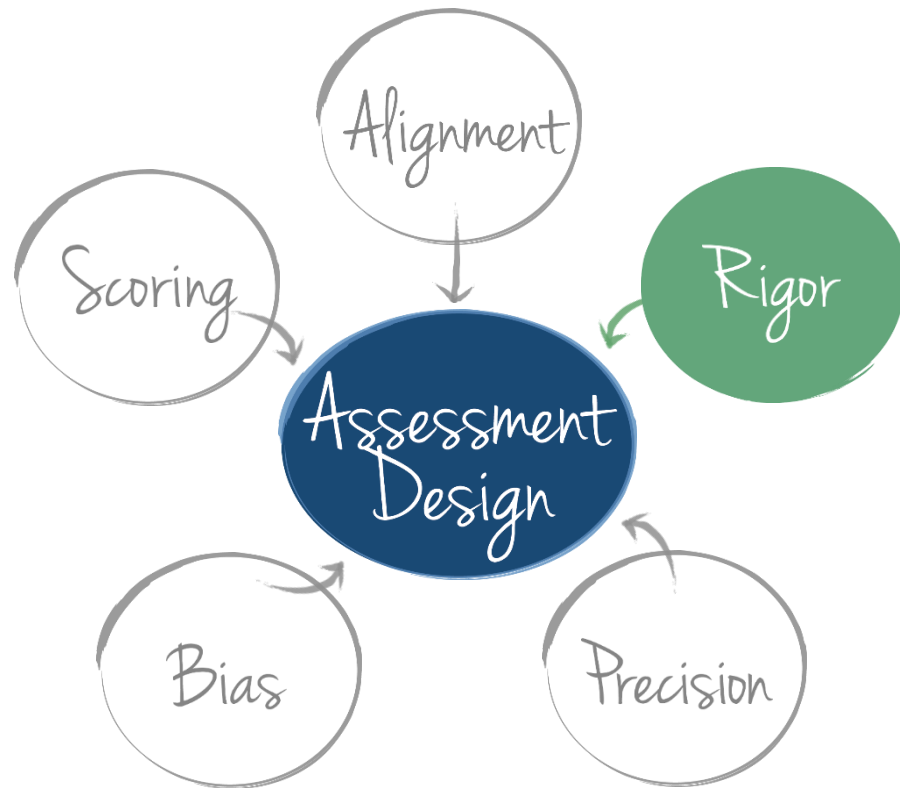
Classroom
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An assessment has an **APPROPRIATE LEVEL OF RIGOR** if the assessment includes assessment items that match the level of rigor of the skill(s) you intend to measure *and* the assessment measures a range of student thinking and understanding so that it measures what all students know and can do



KEY CONCEPTS

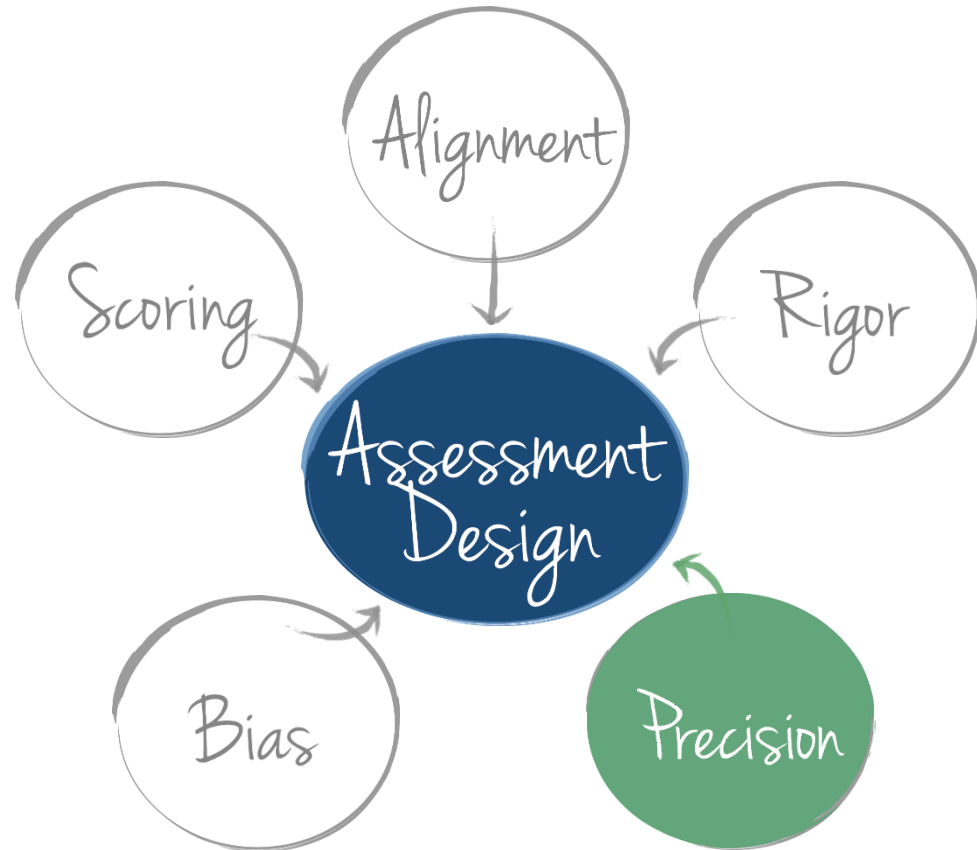
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A **PRECISE** assessment measures students' knowledge and skills, not their misinterpretations or lack of unrelated background knowledge



KEY CONCEPTS

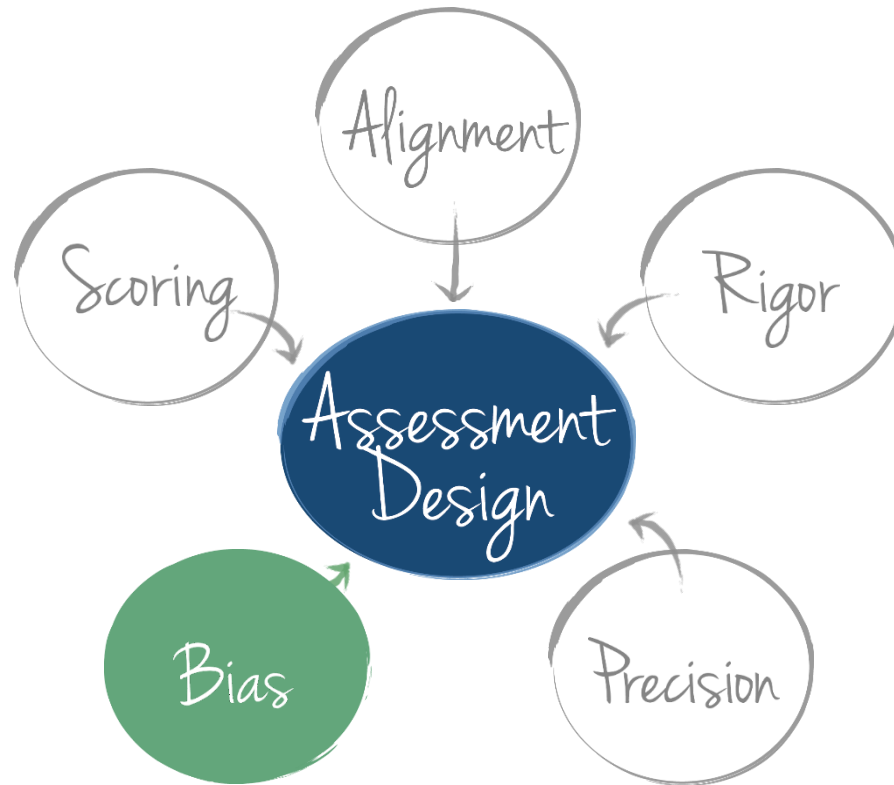
Classroom
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An **UNBIASED** assessment measures students' knowledge and skills, not differences among groups of students because of their personal characteristics, such as race, gender, socioeconomic status or religion



KEY CONCEPTS

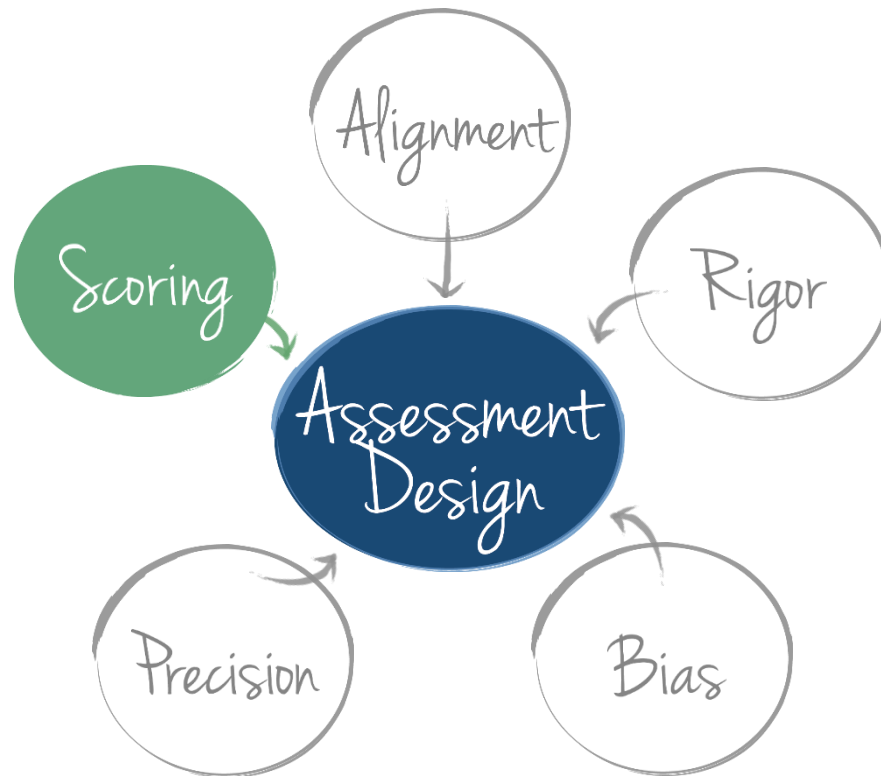
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An assessment that has an **APPROPRIATE SCORING STRATEGY** measures students' knowledge and skills, not how or when the assessment is scored or who scores it



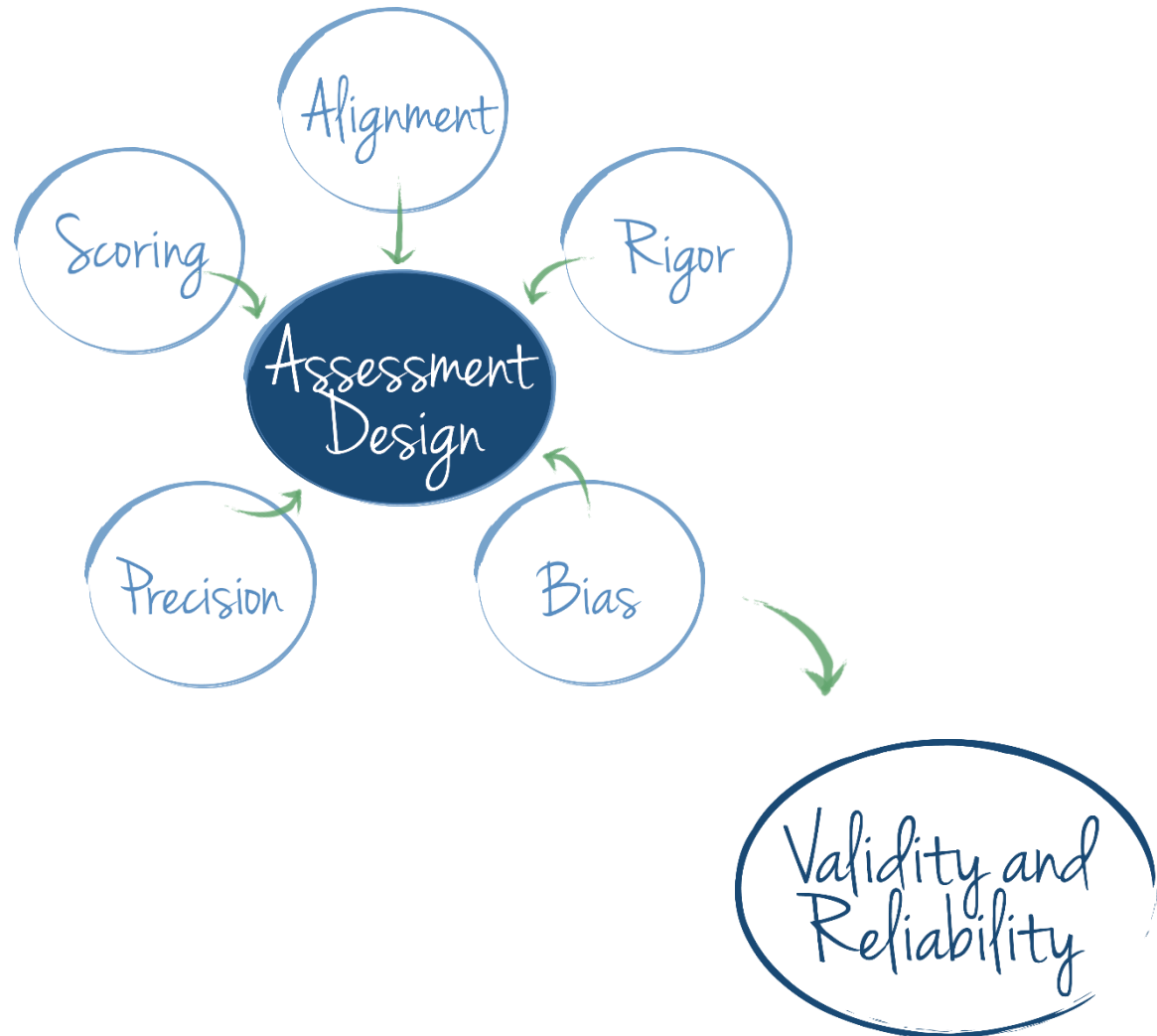
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KEY CONCEPTS

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validity

the extent to which an assessment measures what you intend it to measure



reliability

the extent to which a student's score will be the same no matter when, where or in what form the student takes the assessment or who scores it

Sources: Kansas State Department of Education, Assessment Literacy Project; Ohio Department of Education, "Assessment Literacy: Identifying and Developing Valid and Reliable Assessments" (2013).

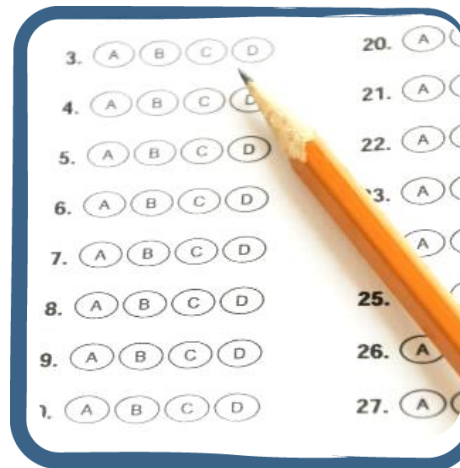
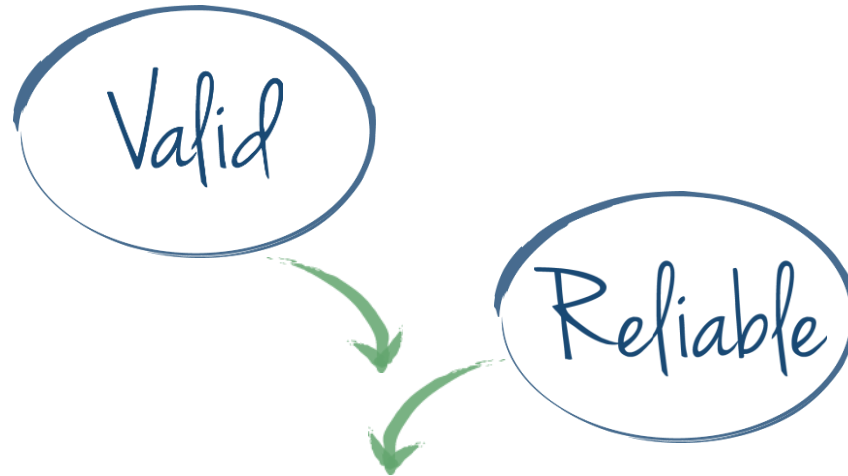
KEY CONCEPTS

Classroom
Assessments

Five Elements
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Design

Validity and
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How to Use
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Blueprint



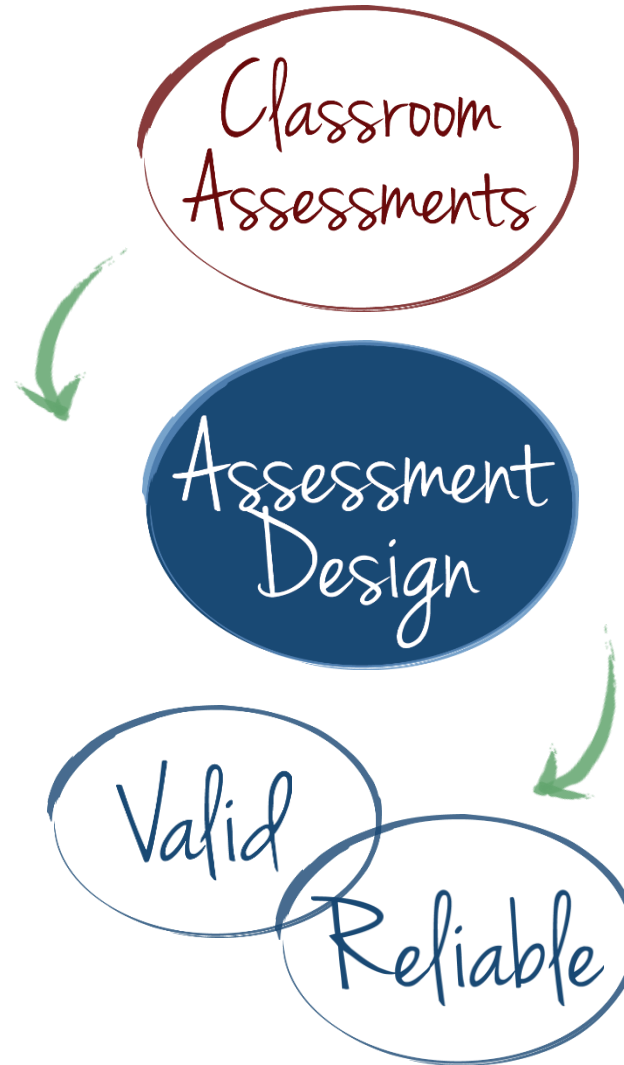
KEY CONCEPTS

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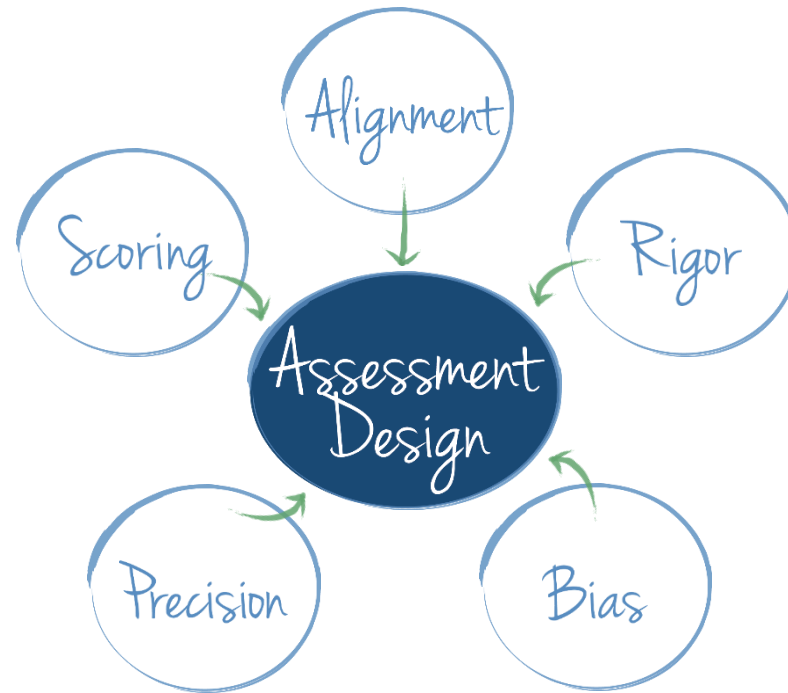
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Validity and
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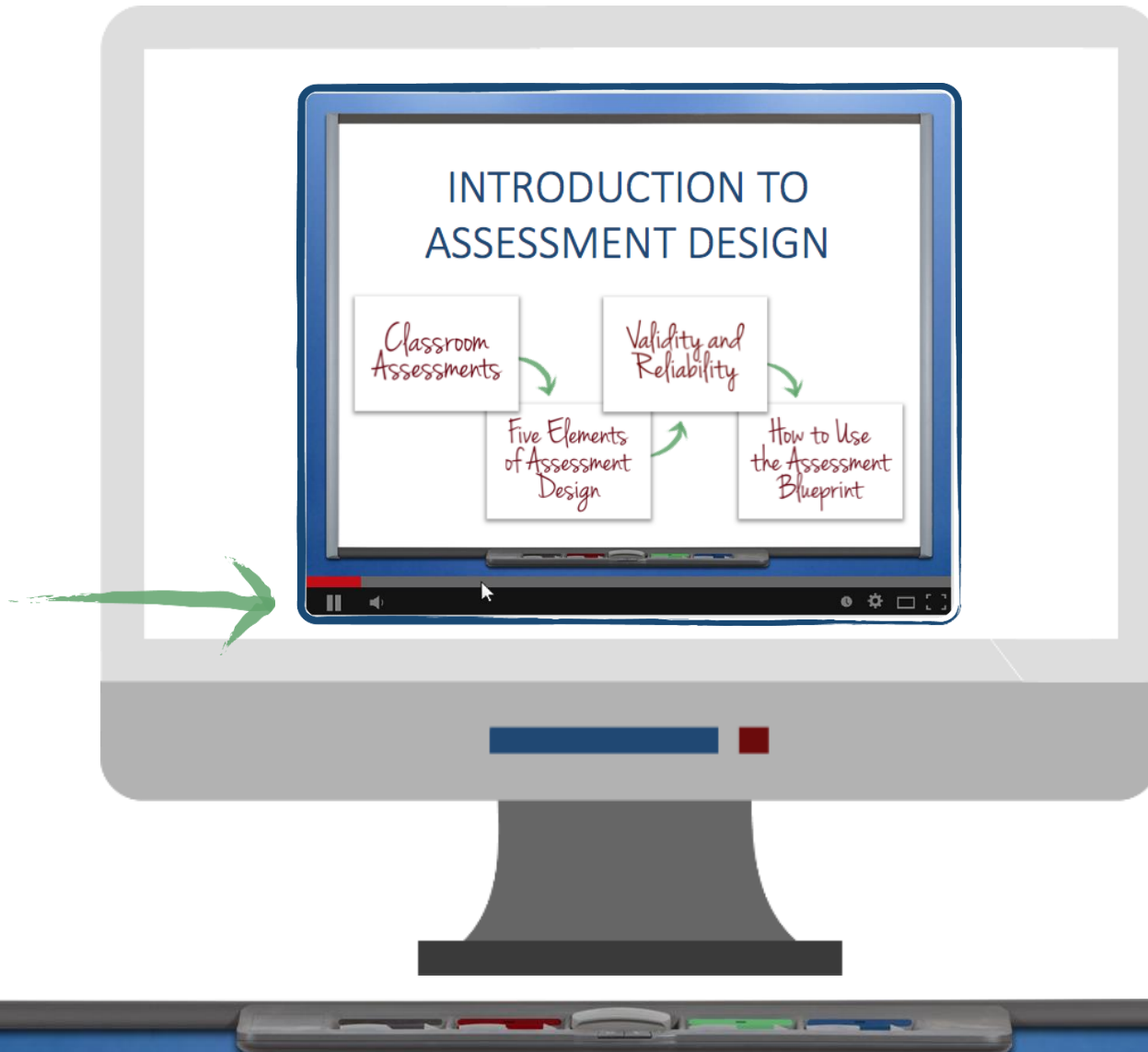
How to Use
the Assessment
Blueprint



$$\frac{1}{n} \sum_{p=1}^n (Q_p - \bar{Q})$$
$$\frac{1}{n} \sum_{p=1}^n [R_p - \bar{R}]$$
$$W) + \text{COV}(R$$

Validity and
Reliability

KEY CONCEPTS



KEY CONCEPTS

How to Use
the Assessment
Blueprint

The diagram illustrates the process of creating an assessment blueprint from assessment design. It features three overlapping screens, each titled "ASSESSMENT DESIGN". The central screen shows a hierarchical concept map with "Key Concept" boxes and arrows. A green arrow points from this central screen to a blue icon labeled "Assessment Blueprint", which contains a grid. Another green arrow points from the central screen to a blue icon labeled "Assessment Blueprint Example", which contains a grid with "Example" text.

Classroom Assessments

Five Elements of Assessment Design

Validity and Reliability

How to Use the Assessment Blueprint

KEY CONCEPTS

Classroom
Assessments

Five Elements
of Assessment
Design

Validity and
Reliability

How to Use
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Blueprint

Plan



Build



KEY CONCEPTS

Classroom
Assessments

Five Elements
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Design

Validity and
Reliability

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Blueprint

Plan



Write &
Select



Classroom
Assessments

Classroom Assessments

Five Elements of Assessment Design

Validity and Reliability

How to Use the Assessment Blueprint

BLUEPRINT²

Which type(s) of items can you write or select to assess this skill?
Examples of items are selected response (SR), constructed response (CR) and performance task (PT).

| |
|--|
| How many points will you assign to the item? |
| What proportion of total points on the assessment does the item equal? |

3

1. TBD
2. TBD
3. TBD
4. TBD
5. TBD

Source: Adapted from Ohio Department of Education, “Assessment Literacy: Identifying and Developing Valid and Reliable Assessments” (2013).

KEY CONCEPTS

Classroom Assessments

Five Elements of Assessment Design

Validity and Reliability

How to Use the Assessment Blueprint

| 1. Primary Purpose of the Assessment | | | Summative | | |
|--|---|----------------------|------------------------------|-------------|-----------------|
| 2. Standard(s) (one per row) | 3. Skill(s) (one per row) | 4. Level(s) of Rigor | 5. Possible Type(s) of Items | | |
| Reading Informational Text 1: Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. | Quote accurately from the text (explicitly and making inferences). | 1 | SR | | |
| Reading Informational Text 2: Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text. | Identify main ideas and how key details support them. | | | | |
| Reading Informational Text 4: Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area. | Determine the meaning of new vocabulary words. | | | | |
| Reading Informational Text 8: Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s). | Explain how the author uses evidence to support his or her claims. | | | | |
| Writing 1: Write opinion pieces on topics or texts, supporting a point of view with reasons and information. | Write an opinion piece on texts. Support your point of view with evidence. | | | | |
| 6. Write and/or Select Assessment Items | | | | | |
| Item # | Standard(s) and/or Skill(s) | Type of Item | Level(s) of Rigor | # of Points | % of Assessment |
| 1 | Determine the meaning of new vocabulary words. | SR-MC | 1-3 | 5 | 14 |
| 2 | Quote accurately, identify main ideas and explain how the author uses evidence. | CR-Short Answer | 1-4 | 12 | 34 |
| 3 | Write an opinion, and support your point of view. | PT-Essay | 5 | 18 | 51 |
| TOTAL | | | | 35 | 100% |

ASSESSMENT DESIGN TOOLKIT
ASSESSMENT BLUEPRINT EXAMPLE

BLUEPRINT EXAMPLE

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|--|---|----------------------|------------------------------|--|
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| Reading Informational Text 4: Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area. | Determine the meaning of new vocabulary words. | 2 | SR | |
| Reading Informational Text 8: Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s). | Explain how the author uses evidence to support his or her claims. | 4 | CR | |
| Writing 1: Write opinion pieces on topics or texts, supporting a point of view with reasons and information. | Write an opinion piece on texts. | 5 | CR, PT | |
| | Support your point of view with evidence. | 5 | CR, PT | |

| 6. Write and/or Select Assessment Items | | | | # of Points | % of Assessment |
|---|---|-----------------|-------------------|-------------|-----------------|
| Item # | Standard(s) and/or Skill(s) | Type of Item | Level(s) of Rigor | | |
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ASSESSMENT DESIGN TOOLKIT

ASSESSMENT BLUEPRINT EXAMPLE

BLUEPRINT EXAMPLE

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1

Sources: Ohio Department of Education, "Ohio's New Learning Standards: English Language Standards" (2010); Student Achievement Partners, "Mini-assessment for *Who was Marco Polo?* by Joan Holub and *The Adventures of Marco Polo* by Russell Freedman" (2014).

KEY CONCEPTS

Primary Purpose

Classroom Assessments

Five Elements of Assessment Design

Validity and Reliability

How to Use the Assessment Blueprint

1. Primary Purpose of the Assessment

2. Standard(s) (one per row)

3. Skill(s) (one per row)

4. Level(s) of Rigor

5. Possible Type(s) of Items

Standard(s)

Skill(s)

Level(s) of Rigor

Type(s) of Items

Write and/or Select Assessment Items

6. Write and/or Select Assessment Items

| Item # | Standard(s) and/or Skill(s) | Type of Item | Level(s) of Rigor | # of Points | % of Assessment |
|--------|-----------------------------|--------------|-------------------|-------------|-----------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| TOTAL | | | | | |

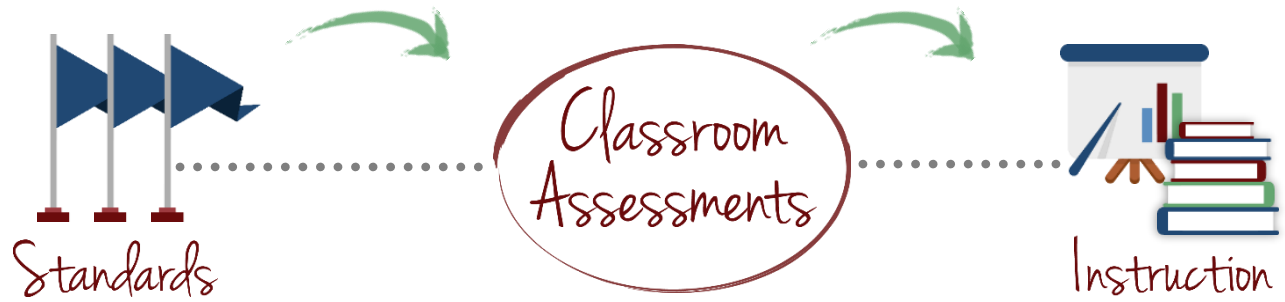
KEY CONCEPTS

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Assessments

Five Elements
of Assessment
Design

Validity and
Reliability

How to Use
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Source: Moody, Michael, and Jason Stricker, *Strategic Design for Student Achievement* (2008).

KEY CONCEPTS

Primary Purpose

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Five Elements of Assessment Design

Validity and Reliability

How to Use the Assessment Blueprint

| 1. Primary Purpose of the Assessment | | | Summative | | |
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| Reading Informational Text 1: Quote accurately from a text when explaining what the text says or infers. | | Cite accurately from the text to support ideas and conclusions. | 1 | SR | |
| Reading Informational Text 4: Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area. | | Determine the meaning of new vocabulary words. | 2 | SR | |
| Reading Informational Text 8: Explain how an author uses reasons and support particular points in a text, identify reasons and evidence support which points. | | | | CR | |
| Writing 1: Write opinion pieces on topics or texts, supporting a point of view with reasons and information. | | Support your point of view with evidence. | 5 | CR, PT | |
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Standard(s)

Skill(s)

Level(s) of Rigor

Type(s) of Items

Write and/or Select Assessment Items

The diagram illustrates the process of creating an assessment blueprint from assessment design. It features three overlapping screens, each titled "ASSESSMENT DESIGN", showing different levels of concept mapping. The central screen shows a hierarchical structure with "Key Concept" boxes and arrows. A green arrow points from this central screen to a blue icon labeled "Assessment Blueprint", which contains a grid. Another green arrow points from the central screen to a blue icon labeled "Assessment Blueprint Example", which contains a grid with "Example" text.

Classroom Assessments

Five Elements of Assessment Design

Validity and Reliability

How to Use the Assessment Blueprint

CHECK FOR UNDERSTANDING

Classroom
Assessments

Validity and
Reliability

Five Elements
of Assessment
Design

How to Use
the Assessment
Blueprint



CHECK FOR UNDERSTANDING



Define **FIVE ELEMENTS OF ASSESSMENT DESIGN AND VALIDITY AND RELIABILITY**



Explain **WHY** teachers should focus on **FIVE ELEMENTS OF ASSESSMENT DESIGN**



Explain the purpose of the **ASSESSMENT BLUEPRINT** and the **ASSESSMENT BLUEPRINT EXAMPLE**

CHECK FOR UNDERSTANDING



Assessment Items

CHECK FOR UNDERSTANDING



Assessment Item

1. Discuss in one to three sentences why we recommend that you focus on five elements of assessment design as opposed to the statistical concepts associated with validity and reliability.

CHECK FOR UNDERSTANDING



Assessment Item

1. Discuss in one to three sentences why we recommend that you focus on five elements of assessment design as opposed to the statistical concepts associated with validity and reliability.



CHECK FOR UNDERSTANDING



Answer

1. Discuss in one to three sentences why we recommend that you focus on five elements of assessment design as opposed to the statistical concepts associated with validity and reliability.

Assessments that I use in my classroom do not demand the same level of statistical scrutiny as large-scale, standardized tests, but I can consider five elements of assessment design to ensure that my assessments are reasonably valid and reliable. Once I master how to address these five elements, I will be able to plan, write and select assessments that have an appropriate level of validity and reliability for use in my classroom.

CHECK FOR UNDERSTANDING



Assessment Item

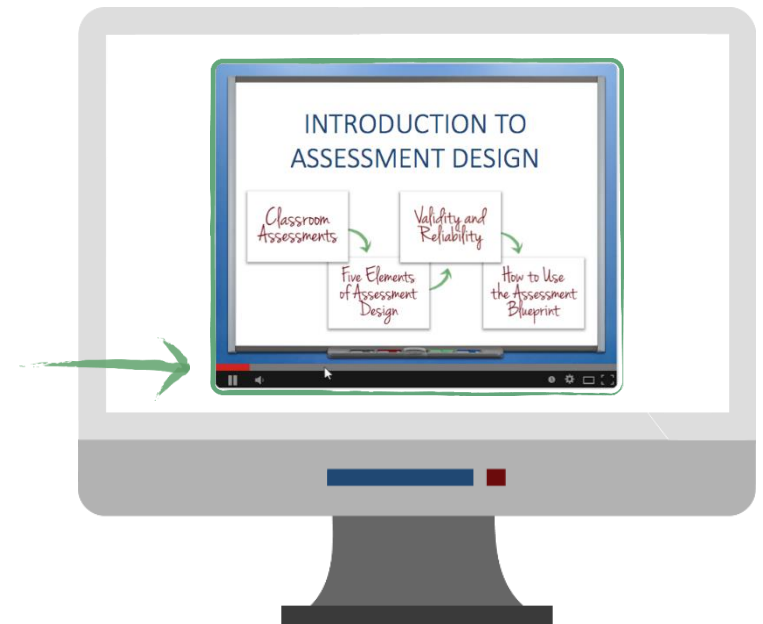
2. What are the assessment blueprint and assessment blueprint example, and how will you use them to understand the concepts in this series of modules and plan assessments in the future?

CHECK FOR UNDERSTANDING



Assessment Item

2. What are the assessment blueprint and assessment blueprint example, and how will you use them to understand the concepts in this series of modules and plan assessments in the future?



CHECK FOR UNDERSTANDING



Answer

2. What are the assessment blueprint and assessment blueprint example, and how will you use them to understand the concepts in this series of modules and plan assessments in the future?

The assessment blueprint and the assessment blueprint example are tools to help me organize the concepts in this series of modules. The assessment blueprint includes a table with directions and a blank template that I can repurpose to design my own assessments. The assessment blueprint example is the template filled out with an example. I can use the tools in my teaching practice to help me determine which standard or standards I plan to measure and design assessments to measure mastery of the standard or standards before I begin teaching.

CONCLUSION

