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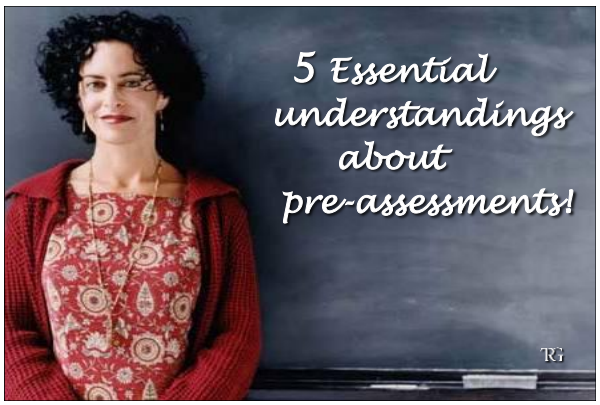
Session learning targets:

1. Know the three types of pre-assessments and the purpose of each type.
2. Understand the effective and ineffective aspects of each type of pre-assessment.
3. Review procedures for developing pre-assessments for cognitive, affective, and behavioral learning goals.
4. Develop procedures for successfully implementing all types of pre-assessments and using pre-assessment results.

Pre-assessment

Wikipedia: ~~A test students can take before a new unit to find out what the students need more instruction on and what they may already know.~~

Any means used by a teacher to gather information about students prior to instruction.



Forms of Pre-assessment

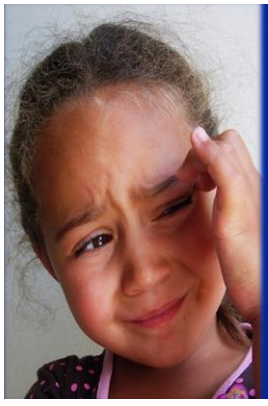
- **Prerequisite** — Required foundational knowledge & skills
- **Present** — Current knowledge, skills, dispositions, interests, etc.
- **Preview** — Knowledge, skills, & dispositions to be learned

Questions Addressed by Pre-assessments

- **Prerequisites** — What do I need to know and be able to do to get started?
- **Present** — What knowledge, skills, dispositions, & interests, do I have now?
- **Preview** — What will I learn & why is it important?

2. Pre-assessments measure three types of learning:

- ✓ ***Cognitive***
  (Achievement & proficiency)
- ✓ **Affective**
  (Dispositions & interests)
- ✓ ***Psychomotor***
  (Skills & behavior)

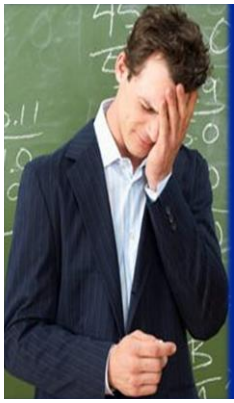


3. Each type has different *levels of complexity!*

Cognitive	Affective	Psychomotor
knowledge	**attitude**	**skills**
1. Recall data	1. Receive (awareness)	1. Imitation (copy)
2. Understand	2. Respond (react)	2. Manipulation (follow instructions)
3. Apply (use)	3. Value (understand and act)	3. Develop Precision
4. Analyse (structure/elements)	4. Organise personal value system	4. Articulation (combine, integrate related skills)
5. Synthesize (create/build)	5. Internalize value system (adopt behaviour)	5. Naturalization (automate, become expert)
6. Evaluate (assess, judge in relational terms)		

4. In the past, pre-assessments have been used for *two major purposes*.

1. To *establish a baseline of performance* from which improvement, progress, or learning gain can be measured (Preview).
2. To *identify exceptional learners* for whom special instructional programs must be planned (Prerequisite & Preview).



Research evidence?

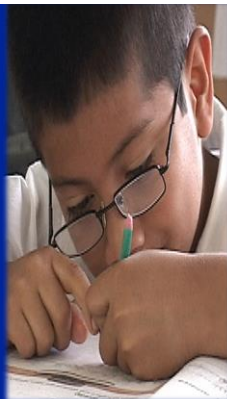
With few exceptions, we could find *little research evidence* showing that successful teachers consistently use pre-assessment data in planning instruction or that the use of such data results in more effective instruction and improved student learning.

Guskey & McTighe (2016)

Potential advantages of *Present* pre-assessments

(Guskey & McTighe, 2016)

1. Determine students' prior knowledge and skills.
2. Monitor student progress.
3. Communicate expectations.
4. Focus attention on learning targets.
5. Check for misconceptions.
6. Identify students' interests, talents, and preferred ways of learning.



Noted drawbacks of *Present* pre-assessments

(Guskey & McTighe, 2016)

1. Begin instruction on a bad note.
2. Confirm what teachers already know.
3. Waste valuable instructional time.
4. Create management challenges for teachers.
5. Offer little time for analysis.
6. Can get too personal.

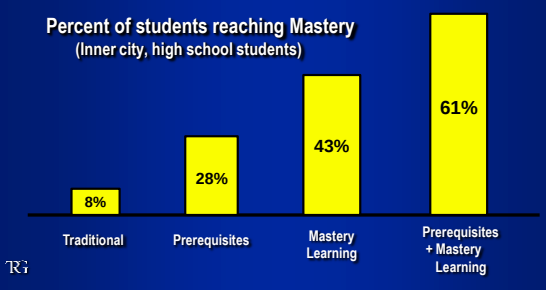
Guidelines for *Present* pre-assessments

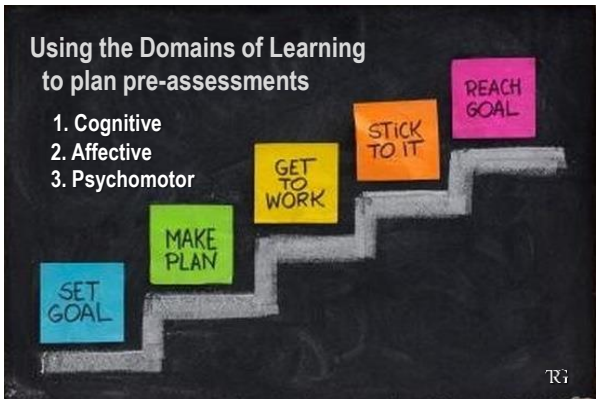
(Guskey & McTighe, 2016)

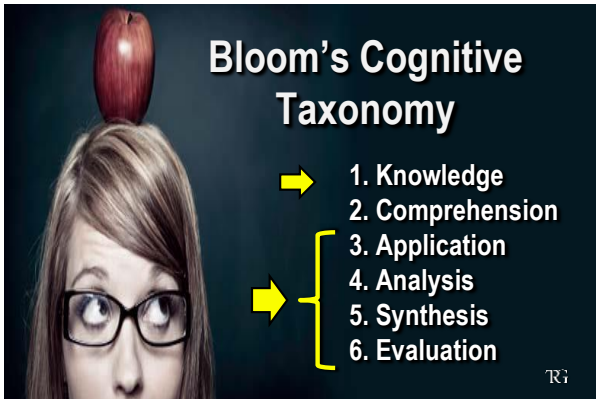
1. Clarify the purpose for any pre-assessment.
2. Determine how you will use the information.
3. Design pre-assessments for use at the start of the school year or new courses when essential.
4. Use pre-assessments judiciously and efficiently.

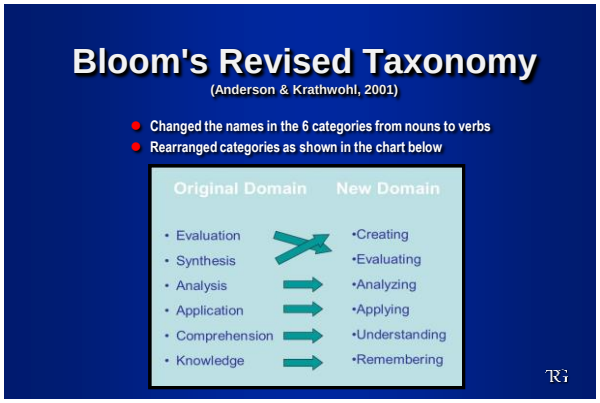
5. Research supports *Prerequisite* pre-assessments

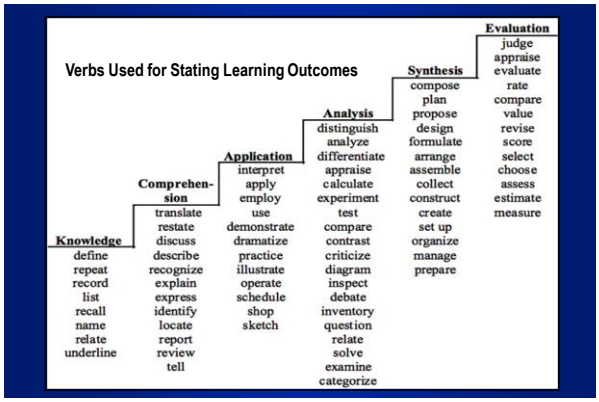
Leyton's (1983) Study of Prerequisites

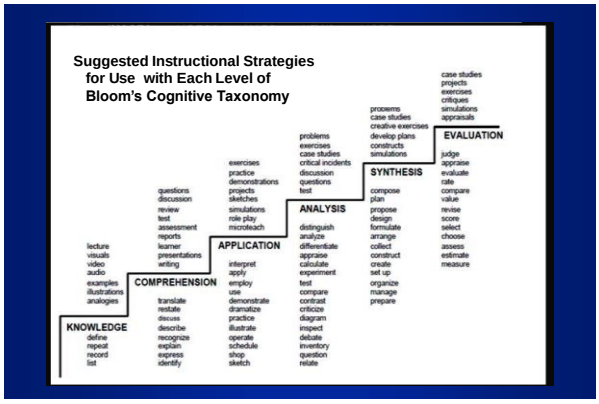


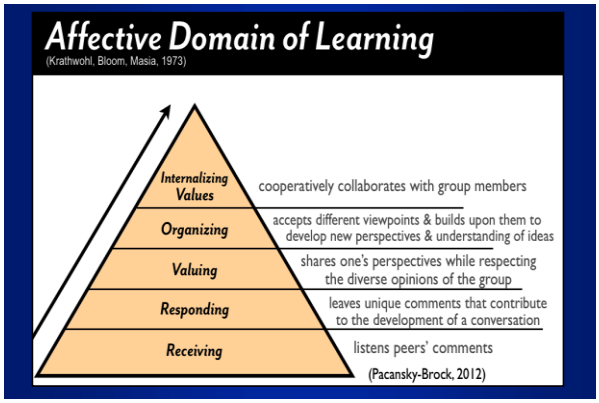

Using the Domains of Learning
to plan pre-assessments
1. Cognitive
2. Affective
3. Psychomotor
SET GOAL
MAKE PLAN
GET TO WORK
STICK TO IT
REACH GOAL

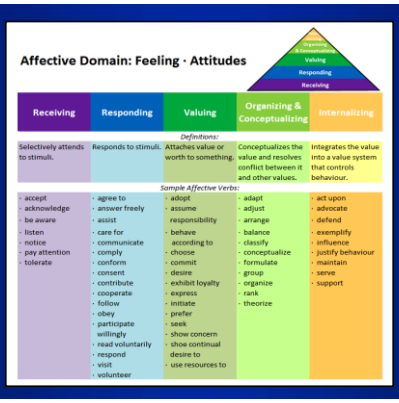

Bloom's Cognitive Taxonomy
1. Knowledge
2. Comprehension
3. Application
4. Analysis
5. Synthesis
6. Evaluation


Bloom's Revised Taxonomy
(Anderson & Krathwohl, 2001)
Changed the names in the 6 categories from nouns to verbs
Rearranged categories as shown in the chart below
Original Domain
New Domain
Evaluation
Synthesis
Analysis
Application
Comprehension
Knowledge
Creating
Evaluating
Analyzing
Applying
Understanding
Remembering


Verbs Used for Stating Learning Outcomes
Knowledge
define
repeat
record
list
recall
name
relate
underline
Comprehen-sion
translate
restate
discuss
describe
recognize
explain
express
identify
locate
report
review
tell
Application
interpret
apply
employ
use
demonstrate
dramatize
practice
illustrate
operate
schedule
shop
sketch
Analysis
distinguish
analyze
differentiate
appraise
calculate
experiment
test
compare
contrast
criticize
diagram
inspect
debate
inventory
question
relate
solve
examine
categorize
Synthesis
compose
plan
propose
design
formulate
arrange
assemble
collect
construct
create
set up
organize
manage
prepare
Evaluation
judge
appraise
evaluate
rate
compare
value
revise
score
select
choose
assess
estimate
measure


Suggested Instructional Strategies for Use with Each Level of Bloom's Cognitive Taxonomy
KNOWLEDGE
COMPREHENSION
APPLICATION
ANALYSIS
SYNTHESIS
EVALUATION


Affective Domain of Learning
(Krathwohl, Bloom, Masia, 1973)
Internalizing Values
cooperatively collaborates with group members
Organizing
accepts different viewpoints & builds upon them to develop new perspectives & understanding of ideas
Valuing
shares one's perspectives while respecting the diverse opinions of the group
Responding
leaves unique comments that contribute to the development of a conversation
Receiving
listens peers' comments
(Pacansky-Brock, 2012)



Examples of Learning Outcomes in Affective Domain

- Accept the need for professional ethical standards.
- Appreciate the need for confidentiality in the professional client relationship.
- Display a willingness to communicate well with patients.
- Relate to participants in an ethical and humane manner.
- Resolve conflicting issues between personal beliefs and ethical considerations.
- Embrace a responsibility for the welfare of children taken into care.
- Participate in class discussions with colleagues and with teachers.

Psychomotor Domain

Level	Description	Verbs	Example
Imitation	copy action of another; observe and replicate	copy, follow, replicate, repeat, adhere	watch teacher or trainer and repeat action, process or activity
Manipulation	reproduce activity from instruction or memory	re-create, build, perform, execute, implement	carry out task from written or verbal instruction
Precision	execute skill reliably, independent of help	demonstrate, complete, show, perfect, calibrate, control,	perform an activity with expertise and to high quality without assistance or instruction; able to demonstrate an activity to other learners
Articulation	adapt and integrate expertise to satisfy a non-standard objective	construct, solve, combine, coordinate, integrate, adapt, develop, formulate, modify, master	relate and combine associated activities to develop methods to meet varying, novel requirements
Neutralization	automated, unconscious mastery of activity and related skills at strategic	define aim, approach and strategy for use of activities to meet	design, specify, manage, invent, project-manage

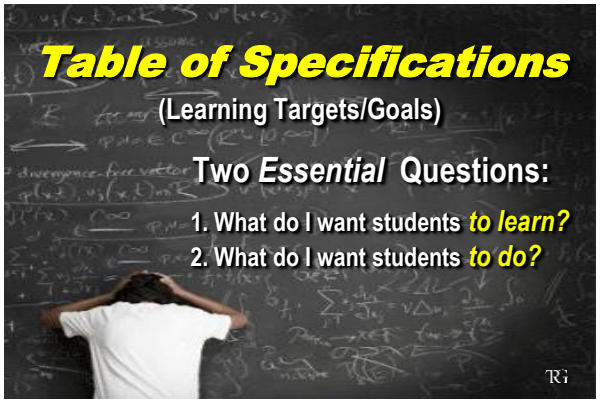


Table of Specifications

Knowledge of				Translations	Applications	Analysis & Synthesis
Terms	Facts	Rules & Principles	Processes & Procedures			

Table of Specifications

Knowledge of				Translations	Applications	Analysis & Synthesis
Terms	Facts	Rules & Principles	Processes & Procedures			
New Vocabulary Words Names Phrases Symbols	Specific Information Persons Events Data Operations	Relations Guidelines Organizational Cues	Patterns Sequences Order of Events or Operations Steps	Identify Describe Recognize Distinguish Compute	Use Illustrate Solve Demonstrate	Compare Contrast Explain Infer Combine Construct Integrate Create

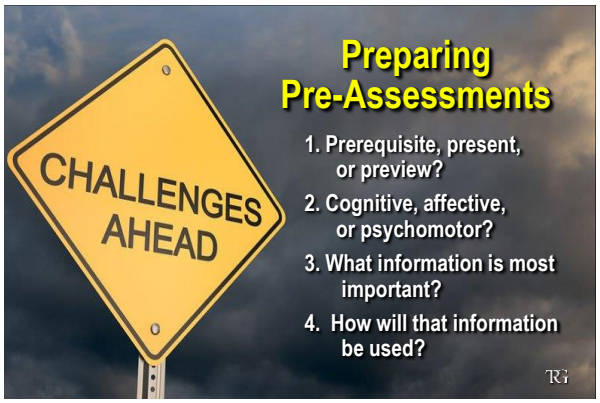
Table of Specifications

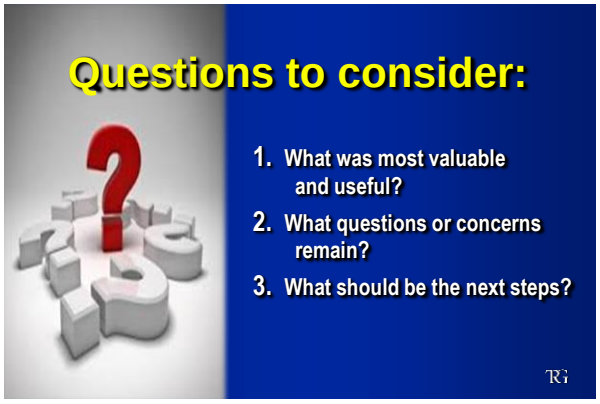
(Elementary Social Studies)

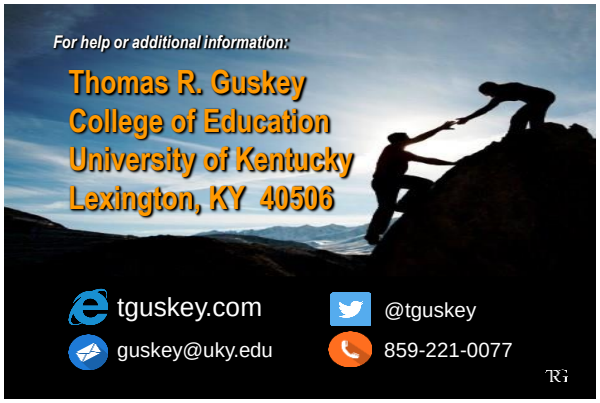
Knowledge of				Translations	Applications
Terms	Facts	Rules & Principles	Processes & Procedures		
Geography Geographer Map Scale Legend Topography Topographic features Longitude Latitude Coordinates	The skill of map-making is very old. Early people made maps based on inaccurate information. Inaccurate maps affected early explorations Rivers determined the location of many early settlements	Earth features influence many human activities: - The routes traveled - The location of towns and cities. - Occupations - The things eaten	Travel routes came first. Settlements, towns, and cities were established along major travel routes and intersections, especially rivers. Occupations developed based on the needs of travelers.	Describe how geography affected early travel routes. Describe why accurate maps were important to early explorers. Identify lines of longitude and latitude on a map. Describe how longitude and latitude helps locate points on maps.	Explain why major cities developed in their current locations. Identify specific points or locations on a new and unfamiliar map. Use a map in planning a travel route.

Advantages of Tables of Specifications

1. Bring ***precision*** to teaching
   (Lower and higher level learning skills)
2. Link **instructional activities** with learning targets
   (Broad versus narrow standards)
3. Link ***texts and materials*** with learning targets
4. Align ***classroom assessments*** with learning targets


CHALLENGES AHEAD
Preparing Pre-Assessments
1. Prerequisite, present, or preview?
2. Cognitive, affective, or psychomotor?
3. What information is most important?
4. How will that information be used?


Questions to consider:
1. What was most valuable and useful?
2. What questions or concerns remain?
3. What should be the next steps?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