

Bloom's Taxonomy

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Learning Outcome

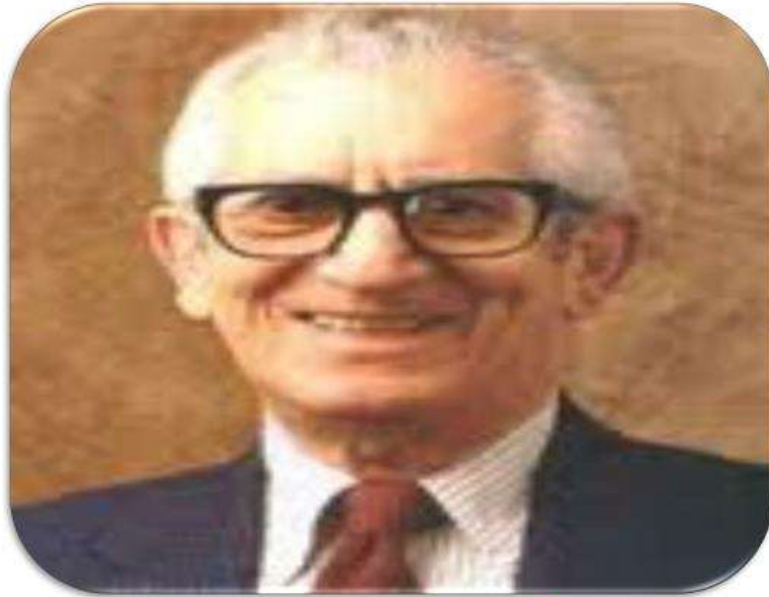
At the end of this session, participants will be able to:

Understand and apply the concept of Bloom's Taxonomy in question preparation and assessment.

Bloom's Taxonomy

Benjamin Samuel Bloom (1913 – 1999)

Educational Psychologist



Benjamin Bloom



Move the slider to build Bloom's Taxonomy

History of Bloom's Taxonomy

- **1948:** Benjamin Bloom began developing a classification of learning objectives.
- **1956:** Original *Bloom's Taxonomy* (Cognitive Domain) was published.
- **1964–1972:** Affective and Psychomotor domains were added.
- **2001:** Revised by Anderson and Krathwohl — updated terms and structure.
- **Now:** Used worldwide to design learning outcomes and assessments.

Background

- Framework of how we learn and think about different things.
- It is important in education to help teachers
 - clear learning goals,
 - design effective lesson plan, and
 - create meaningful assessment.

It helps students a deeper understanding in subject matter and prepare them success.

Bloom's Taxonomy of Learning

A set of **three hierarchical models** used for the classification of educational **learning objectives** into levels of complexity and specificity.

During the 1990s, a new group of cognitive psychologists, led by **Lorin Anderson** (a former student of Bloom), updated the taxonomy reflecting relevance to 21st century perspective.

Bloom's Taxonomy of Learning

Cognitive domain



Head

What we Know?

Mental Skills
Knowledge

Affective domain



Heart

How we Feel?

Emotional Growth
Attitude

Psychomotor domain



Hand

How we Do?

Manual Skills
Skills

The three lists cover the learning objectives in **cognitive**, **affective** and **psychomotor** domains.

Bloom's Taxonomy of Learning

Cognitive domain



Analyze
Evaluate
Create
Apply

Affective domain



Develop positive
attitudes, values,
and ethical
behavior.

Psychomotor domain



Demonstrate a
specific skill,
manipulate tools or
equipment

Bloom's Taxonomy of Learning: Examples

Cognitive domain



"Students will be able to design and implement a basic algorithm."

Affective domain



"Students will demonstrate ethical decision-making in professional settings."

Psychomotor domain



"Students will be able to perform a specific surgical procedure with accuracy."

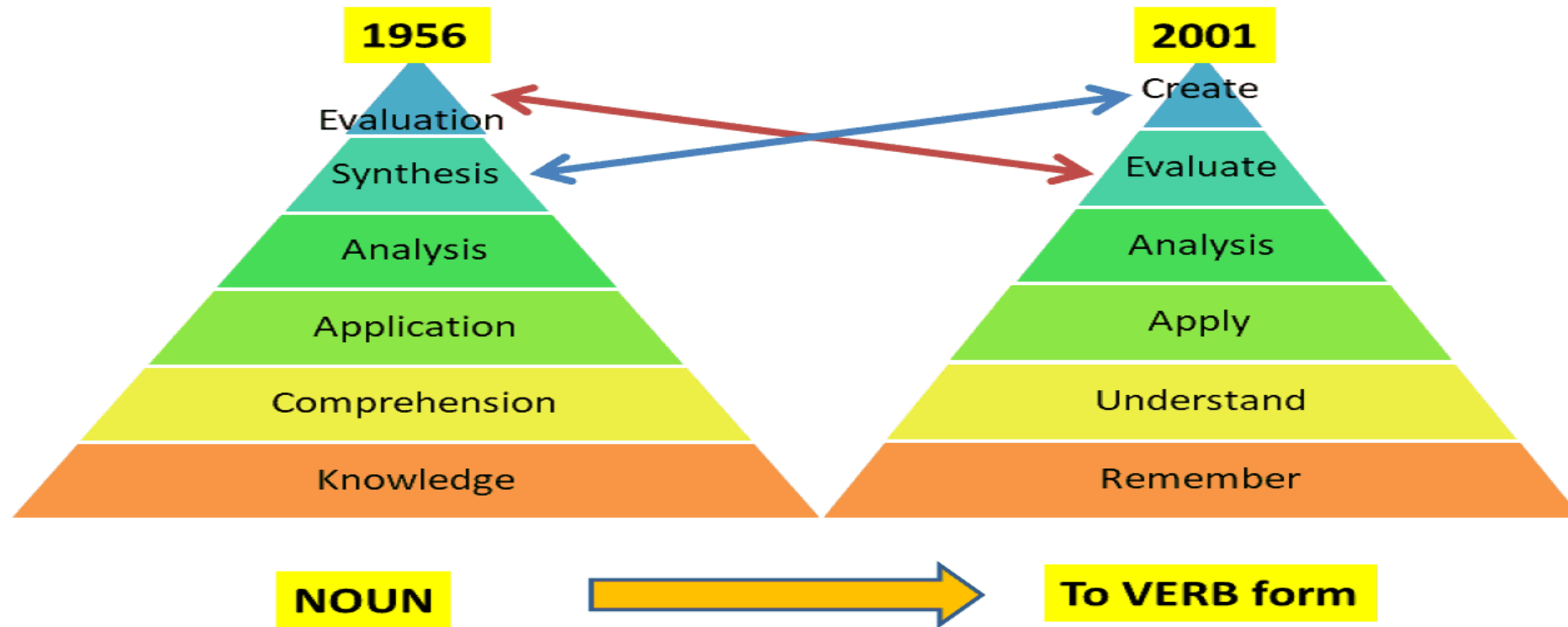
Use of Bloom's Taxonomy

1. Defining the Learning Outcomes (LOs) & Educational Objectives
2. Selecting teaching methods/strategies
3. Selecting teaching aids-materials
4. Preparation of assessment tools
5. Development & review of curriculum

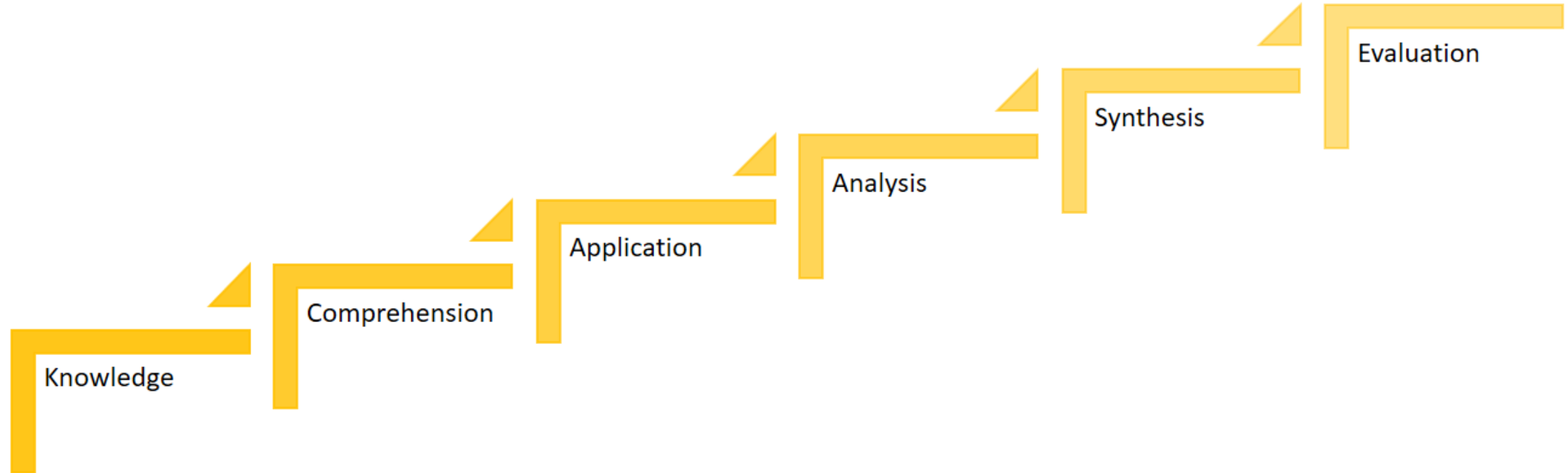
Cognitive	Affective	Psychomotor
<i>Learners' ability to process information in a meaningful way</i> Learners demonstrate knowledge and comprehension of the subject matter and the ability to apply it to real life situations. (Mental skills, Knowledge, Comprehension, Critical thinking)	<i>Learners' attitudes and feeling that are a result of the learning process.</i> involves the demonstration of feelings, attitudes, or sensitiveness toward other people, ideas or things. includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes. (Attitudes, Emotional reaction, Awareness)	<i>Learners' ability to use motor skills to learn</i> measures the skills performance of the learner, therefore, the performance required will involve the manipulation of objects, tools, supplies, or equipment. includes physical movement, coordination, and use of the motor-skill areas. Development of these skills requires practice and is measured in terms of speed, precision, distance, procedures, or techniques in execution. (Manual or physical skills)

Cognitive	Affective	Psychomotor
Categories - Knowledge - Comprehension - Application - Analysis - Synthesis - Evaluation Revised ones - Remember - Understand - Apply - Analyze - Evaluate - Create	Categories - Receiving - Responding - Valuing - Organizing - Characterizing	Categories - Perception - Set - Guided Response - Mechanism - Complex over response - Adaptation - Origination

Bloom's Taxonomy

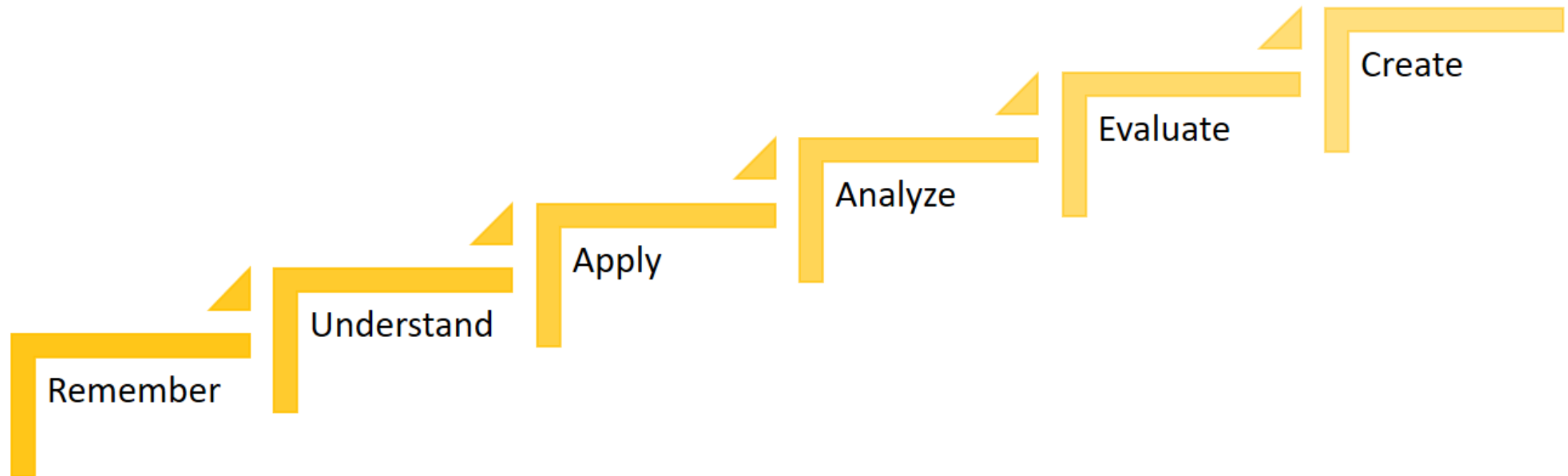


Bloom's Taxonomy



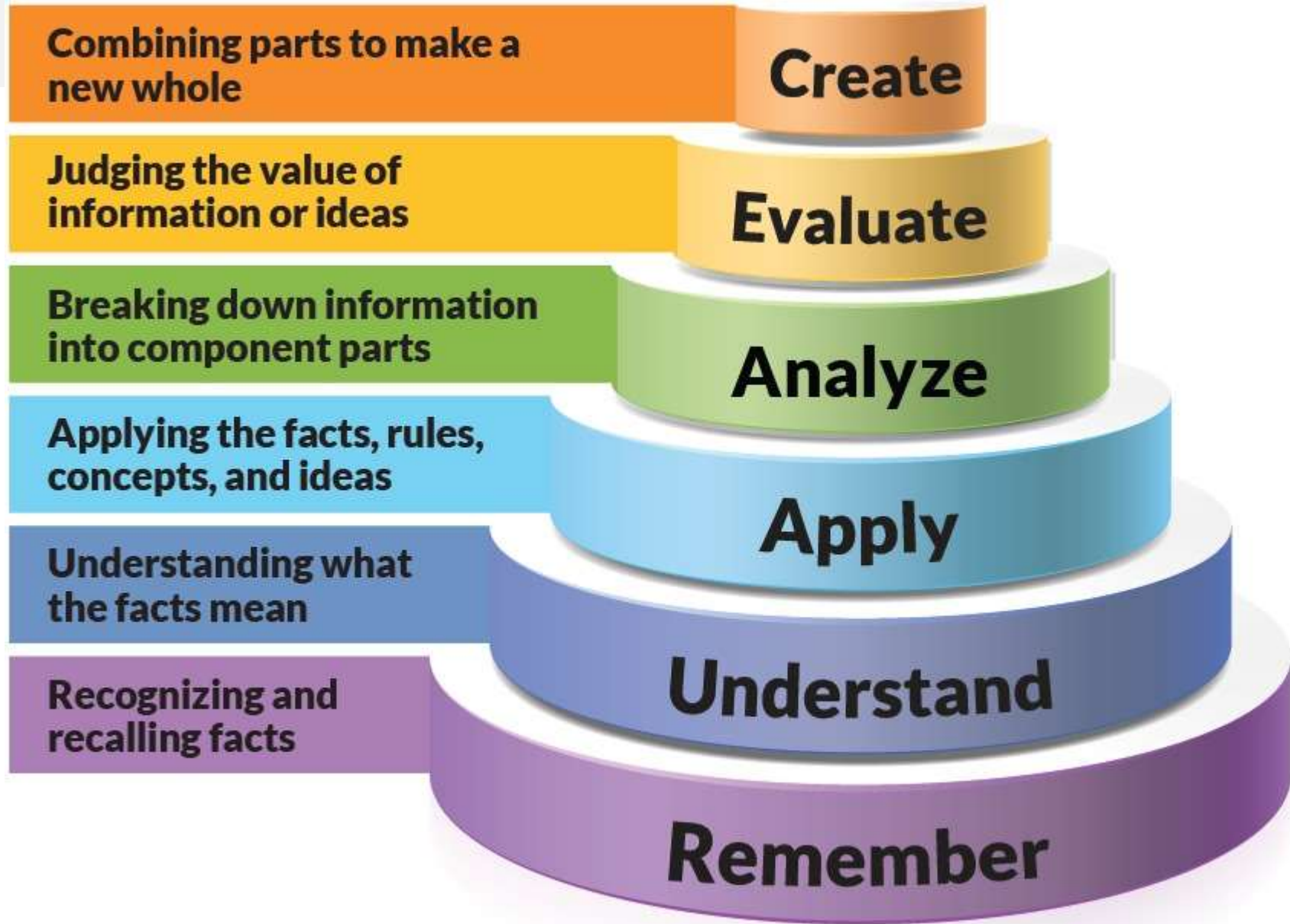
The hierarchy of the cognitive domain of Bloom's Taxonomy (1956).

Bloom's Taxonomy



Revision to Bloom's cognitive hierarchy (2001)

Bloom's Taxonomy



Remember

Retrieving, recognizing, and recalling relevant knowledge from long-term memory.

Action Verbs: List, define, identify, name, recall, state, etc.

Examples:

Define photosynthesis

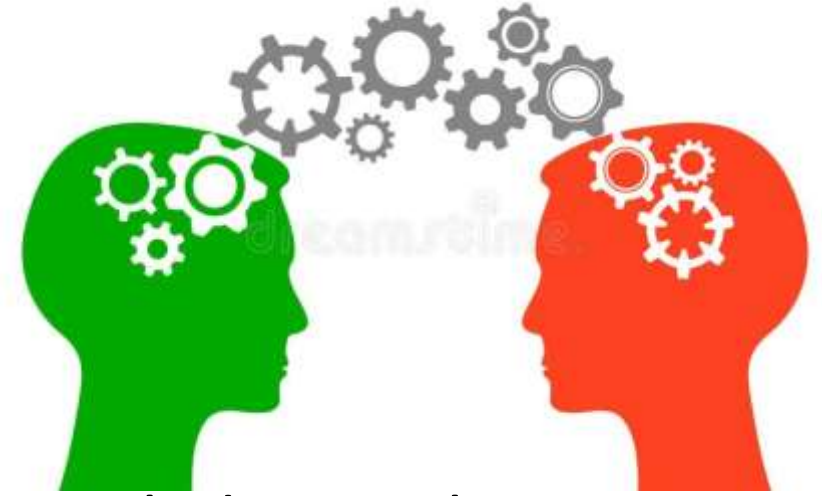
Memorizing multiplication facts

Recalling the dates of historical events

Remembering the names of the planets



Understand



Constructing meaning from instructional messages, including oral, written, and graphic communication.

Action Verbs: Explain, interpret, summarize, paraphrase, classify, describe, etc.

Examples:

Explaining the process of photosynthesis

Explain Newton's First Law in your own words

Summarizing the main points of a story

Classifying different types of animals

Apply

Carrying out or using a procedure through executing or implementing.

Action Verbs: Apply, solve, use, demonstrate, calculate, complete, etc.

Examples:

Solving math problems

Using a microscope to examine cells

Writing a letter using correct grammar and punctuation



Analyze



Breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose.

Action Verbs: Analyze, compare, contrast, differentiate, organize, distinguish, etc.

Examples:

Comparing and contrasting the characters in a novel

Analyzing the causes of the American Revolution

Identifying the different parts of a plant cell

Evaluate

Making judgments based on criteria and standards through checking and critiquing.

Action Verbs: Evaluate, critique, judge, justify, assess, recommend, etc.

Examples:

Evaluating the effectiveness of a government policy

Critiquing a piece of artwork

Justifying a decision based on evidence

Rank different solutions to an environmental problem



Create

Putting elements together to form a coherent or functional whole; reorganizing elements into a new pattern or structure.

Action Verbs: Create, design, develop, invent, compose, produce, etc.

Examples:

Writing a short story

Design a science experiment to test a hypothesis

Composing a piece of music

Develop a business plan for a sustainable product



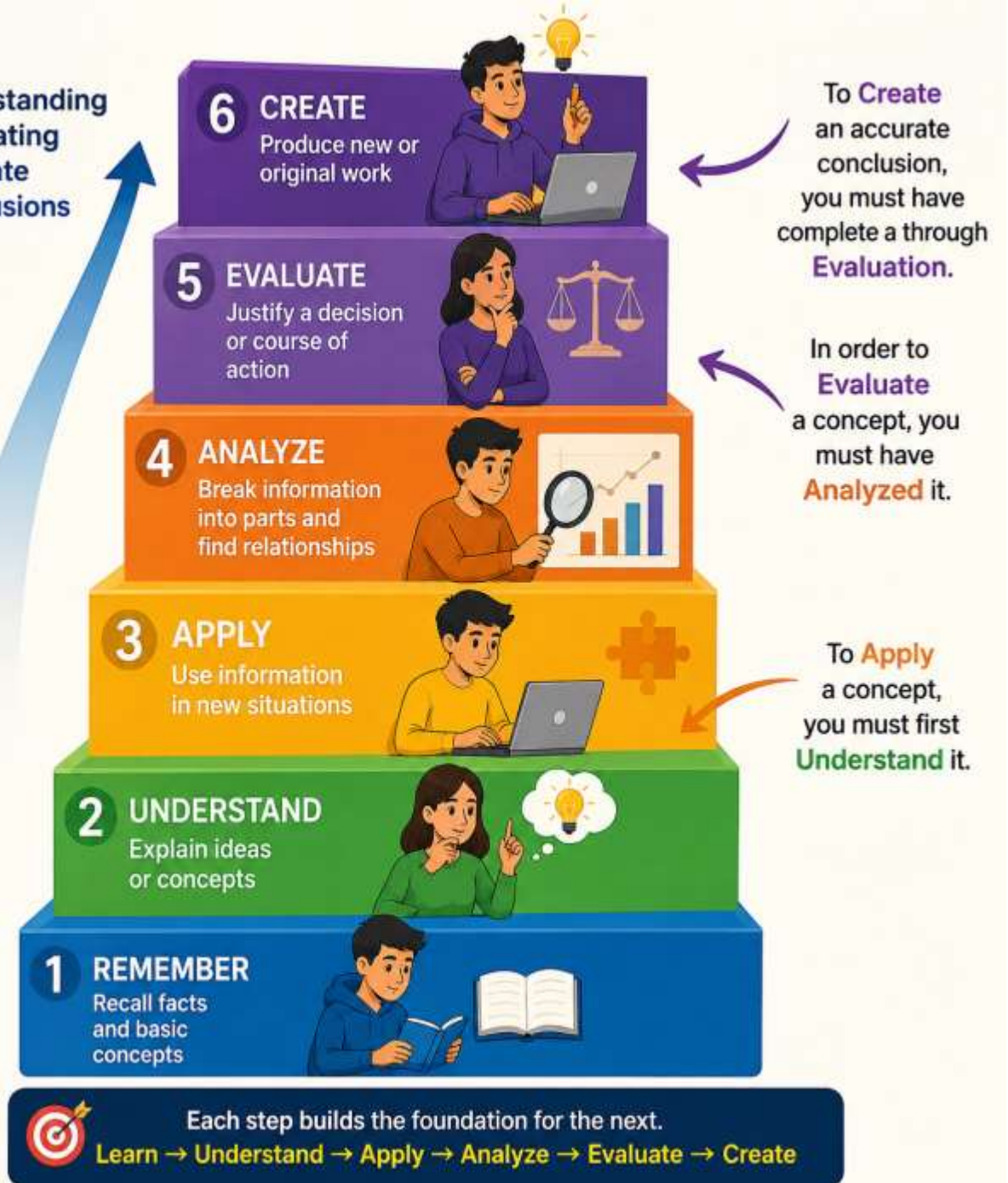
Bloom's Taxonomy

To **Apply** a concept, you must first **Understand** it.

In order to **Evaluate** a concept, you must have **Analyzed** it.

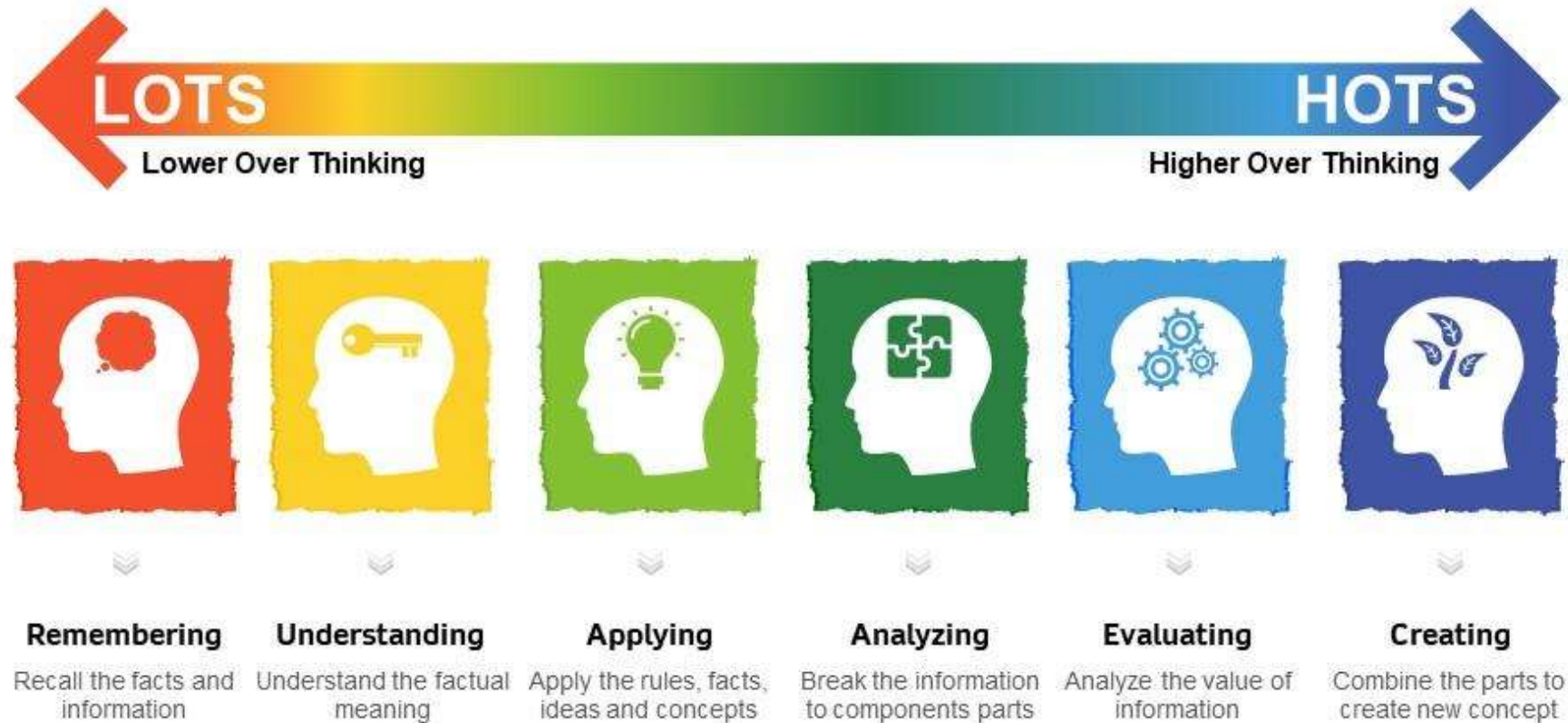
To **Create** an accurate conclusion, you must have complete a through **Evaluation**.

From
Understanding
to Creating
Accurate
Conclusions



Bloom's Taxonomy Model for Task Execution

This slide is 100% editable. Adapt it to your needs and capture your audience's attention.





Remember

Useful Verbs	Sample Question Stems
List	What happened after...?
Locate	☐ How many...?
Name	☐ Who was it that...?
Recognize	☐ Can you name the...?
State	☐ Describe what happened at...?
Describe	☐ Who spoke to...?
Recall	☐ Can you tell why...?
Repeat	☐ Find the meaning of...?
Retrieve	☐ What is...?
	☐ Which is true or false...?



Understand

Useful Verbs	Sample Question Stems
Conclude Define in your own words Illustrate Predict Tell Identify paraphrase Summarize Categorize Classify Discuss Match Sort Compare Contrast Explain	☐ Can you write in your own words...? ☐ Can you write a brief outline...? ☐ What do you think could of happened next...? ☐ Who do you think...? ☐ What was the main idea...? ☐ Who was the key character...? ☐ Can you distinguish between...? ☐ What differences exist between...? ☐ Can you provide an example of what you mean...? ☐ Can you provide a definition for...?

Useful Verbs	Sample Question Stems
Generalize Infer Show Use	☐ Do you know another instance where...? ☐ Could this have happened in...? ☐ Can you group by characteristics such as...? ☐ What factors would you change if...? ☐ Can you apply the method used to some experience of your own...? ☐ What questions would you ask of...? ☐ From the information given, can you develop a set of instructions about...? ☐ Would this information be useful if you had a ...?



Apply



Analyze

Useful Verbs	Sample Question Stems
Distinguish Select Arrange Organize Outline	☐ Which events could have happened...? ☐ If ... happened, what might the ending have been? ☐ How was this similar to... ? ☐ What was the underlying theme of...? ☐ What do you see as other possible outcomes? ☐ Why did ... changes occur? ☐ Can you compare your ... with that presented in...? ☐ Can you explain what must have happened when...? ☐ How is ... similar to...? ☐ What are some of the problems of...? ☐ Can you distinguish between...? ☐ What were some of the motives behind...? ☐ What was the turning point in the game? ☐ What was the problem with...?

Useful Verbs	Sample Question Stems
Assess Justify Critique Judge	☐ Is there a better solution to...? ☐ Judge the value of... ☐ Can you defend your position about...? ☐ Do you think ... is a good or a bad thing? ☐ How would you have handled...? ☐ What changes to ... would you recommend? ☐ Do you believe...? ☐ Are you a ... person? ☐ How would you feel if...? ☐ How effective are...? ☐ What do you think about...?



Evaluate



Create

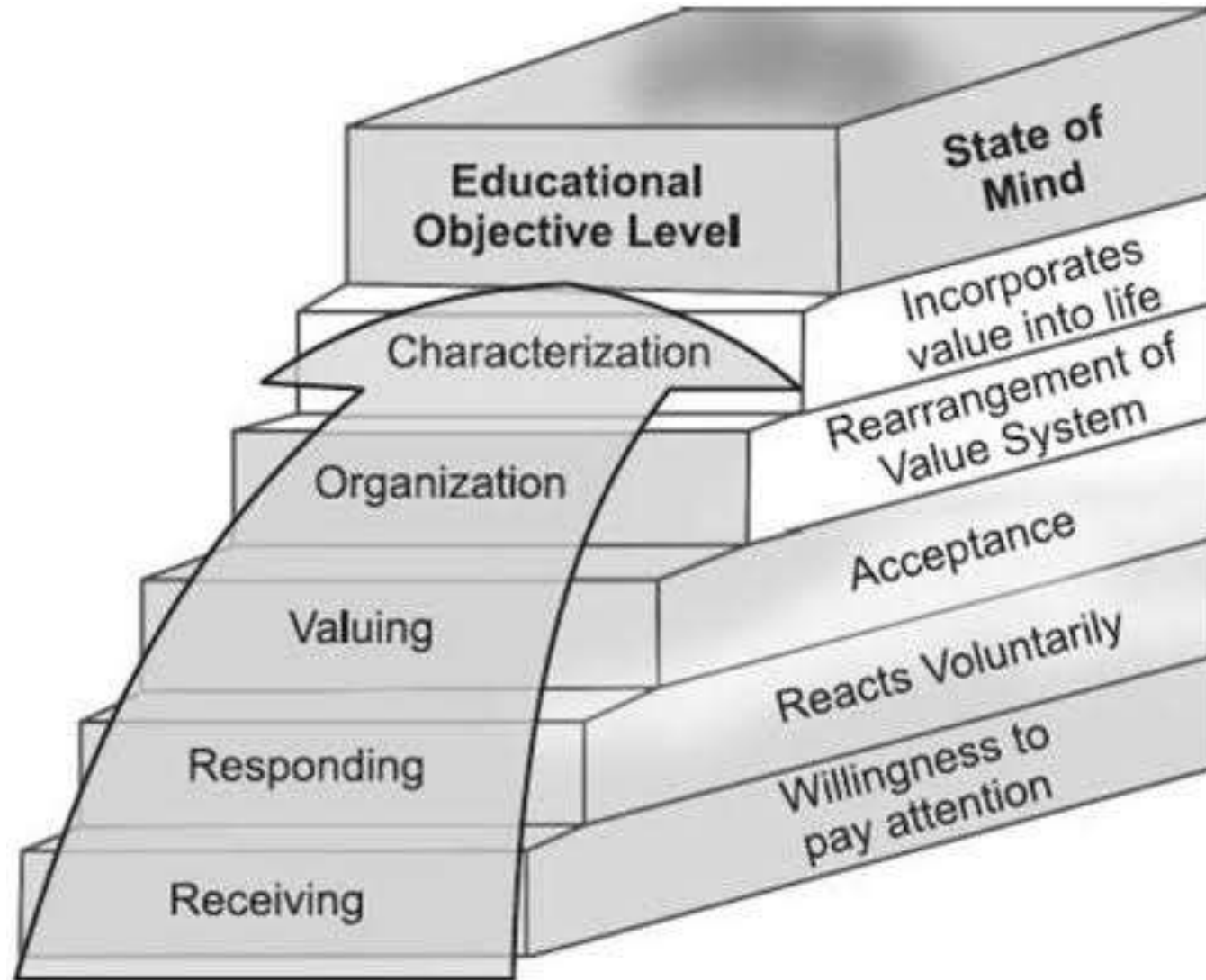
Useful Verbs	Sample Question Stems
Design Compose Plan Hypothesize Revise	☐ Can you design a ... to ...? ☐ Why not compose a song about...? ☐ Can you see a possible solution to...? ☐ If you had access to all resources how would you deal with...? ☐ Why don't you devise your own way to deal with...? ☐ What would happen if...? ☐ How many ways can you...? ☐ Can you create new and unusual uses for...? ☐ Can you write a new recipe for a tasty dish?

Remember To bring an awareness of the concept to learners' minds.	Understand To interpret or recall the information in a particular way.	Apply The ability to use learned material in new and concrete situations.
• Who...? • What...? • Where...? • When...? • Why...? • How much...? • How many...? • True or false?	• How would you generalize...? • How would you express...? • What information can you infer from...? • What did you observe...? • What does this mean? • Choose the correct answer. • State in your own words. • Is this the same as ...? • Give an example of... • Choose the best definition of...? • This represents ... • Is it valid that ...? • What seems likely? Show in a graph, table, chart etc. • Which statements best support ...? • What restrictions would you add?	• How would you demonstrate...? • How would you present...? • Draw a story map. • Explain a character's decision-making process • Do you know of another instance where ...? • Can you group by characteristics such as ...? • Which factors would you change if ...? • What questions would you ask of this character...? • How would you change...? • How would you modify...?

Analyze Understanding the underlying structure of knowledge to be able to distinguish between fact and opinion.	Evaluate Making judgments about the value of ideas, theories, items and materials.	Create Reorganizing concepts into new structures or patterns through generating, producing or planning.
• How can you sort the different parts...? • What can you infer about...? • What ideas validate...? • How would you explain...? • Which persuasive technique is used? • Determine the point of view, bias, values, or underlying intent presented in the material. • If ... happened, what might the ending have been? • How is ... similar to ...? • What do you see as other possible outcomes? • Why did ... changes occur? • Can you explain the result of...?	• What criteria would you use to assess...? • What sources could you use to verify...? • What information would you use to prioritize..? • What changes would you recommend to...? • Do you believe ...? • How would you feel if ...? • How effective are ...? • What are the consequences of ...? • What influence will ... have on our lives? • What are the pros and cons of ...? • Why is ... of value? What are the alternatives?	• What would happen if...? • List the ways you can...? • Can you brainstorm a list of new and unusual uses for ...? • Can you develop a proposal that would ...? • How would you test ...? • Which alternatives would you suggest for...? • How else could you ...? • Describe a rule or common understanding about...? • How would you design a plan to...? • What could you invent to..? • What changes would you make to revise...?

QUESTIONS FOR THE REVISED BLOOM'S TAXONOMY

Affective Domain



Affective Domain

Affective Domain: Attitudes and Values

Levels:

Receiving: Willingness to listen

Responding: Willingness to participate

Valuing: Willingness to be involved

Organizing: Willingness to be an advocate of an idea

Characterizing: Willingness to change one's behavior or way of life

BLOOM'S AFFECTIVE DOMAIN

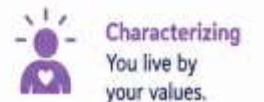
The "Heart" of Learning – Developing Values, Attitudes and Appreciation



AFFECTIVE DOMAIN FOCUSES ON:

Feelings, emotions, values, appreciation, motivation and attitudes.

EXAMPLES OF AFFECTIVE BEHAVIORS:



Receiving

- Awareness, willingness to hear, selected attention.
- **Examples:** Listen to others with respect. Listen for and remember the name of newly introduced people.
- **Keywords:** asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits, erects, replies, uses.



Responding

Active participation on the part of the learners. Attends and reacts to a particular phenomenon. Learning outcomes may emphasize compliance in responding, willingness to respond, or satisfaction in responding (motivation).

Examples: Participates in class discussions. Gives a presentation. Questions new ideals, concepts, models, etc. in order to fully understand them. Know the safety rules and practices them.

Keywords: answers, assists, aids, complies, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes.



Valuing

- The worth or value a person attaches to a particular object, phenomenon, or behavior. This ranges from simple acceptance to the more complex state of commitment. Valuing is based on the internalization of a set of specified values, while clues to these values are expressed in the learner's overt behavior and are often identifiable.
- **Examples:** Demonstrates belief in the democratic process. Shows the ability to solve problems. Is sensitive towards individual and cultural differences (value diversity). Proposes a plan to social improvement and follows through with commitment. Informs management on matters that one feels strongly about.
- **Keywords:** completes, demonstrates, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes, reads, reports, selects, shares, studies, works.



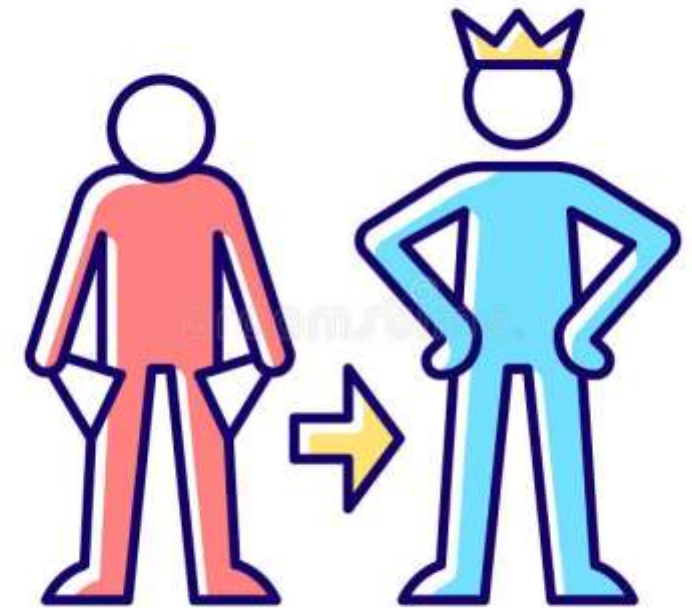
Organization

- Organizes values into priorities by contrasting different values, resolving conflicts between them, and creating an unique value system. The emphasis is on comparing, relating, and synthesizing values.
- **Examples:** Recognizes the need for balance between freedom and responsible behavior. Accepts responsibility for one's behavior. Explains the role of systematic planning in solving problems. Accepts professional ethical standards. Creates a life plan in harmony with abilities, interests, and beliefs. Prioritizes time effectively to meet the needs of the organization, family, and self.
- **Keywords:** adheres, alters, arranges, combines, compares, completes, defends, explains, formulates, generalizes, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes.



Internalizing values (characterization)

- Has a value system that controls their behavior. The behavior is pervasive, consistent, predictable, and most importantly, characteristic of the learner. Instructional objectives are concerned with the student's general patterns of adjustment (personal, social, emotional).
- **Examples:** Shows self-reliance when working independently. Cooperates in group activities (displays teamwork). Uses an objective approach in problem solving. Displays a professional commitment to ethical practice on a daily basis. Revises judgments and changes behavior in light of new evidence. Values people for what they are, not how they look.
- **Keywords:** acts, discriminates, displays, influences, listens, modifies, performs, practices, proposes, qualifies, questions, revises, serves, solves, verifies.



Psychomotor Domain



DAVE'S 5-LEVEL HIERARCHY OF PSYCHOMOTOR DOMAIN

Developed by Dr. R.H. Dave (1970)

A widely accepted 5-level hierarchy to categorize physical skills and coordination.

1



IMITATION

Observing and copying the physical behavior of someone else.



2



MANIPULATION

Performing actions by following instructions and practice.



3



PRECISION

Refining the skill to perform it accurately and independently.



4



ARTICULATION

Coordinating multiple physical skills seamlessly in a sequence.



5



NATURALIZATION

Achieving automatic mastery over the skill with minimal effort.



This hierarchy helps educators design learning experiences that develop physical skills progressively—from basic imitation to automatic, effortless performance.

Psychomotor Domain

Psychomotor Domain : Physical Skills

Levels:

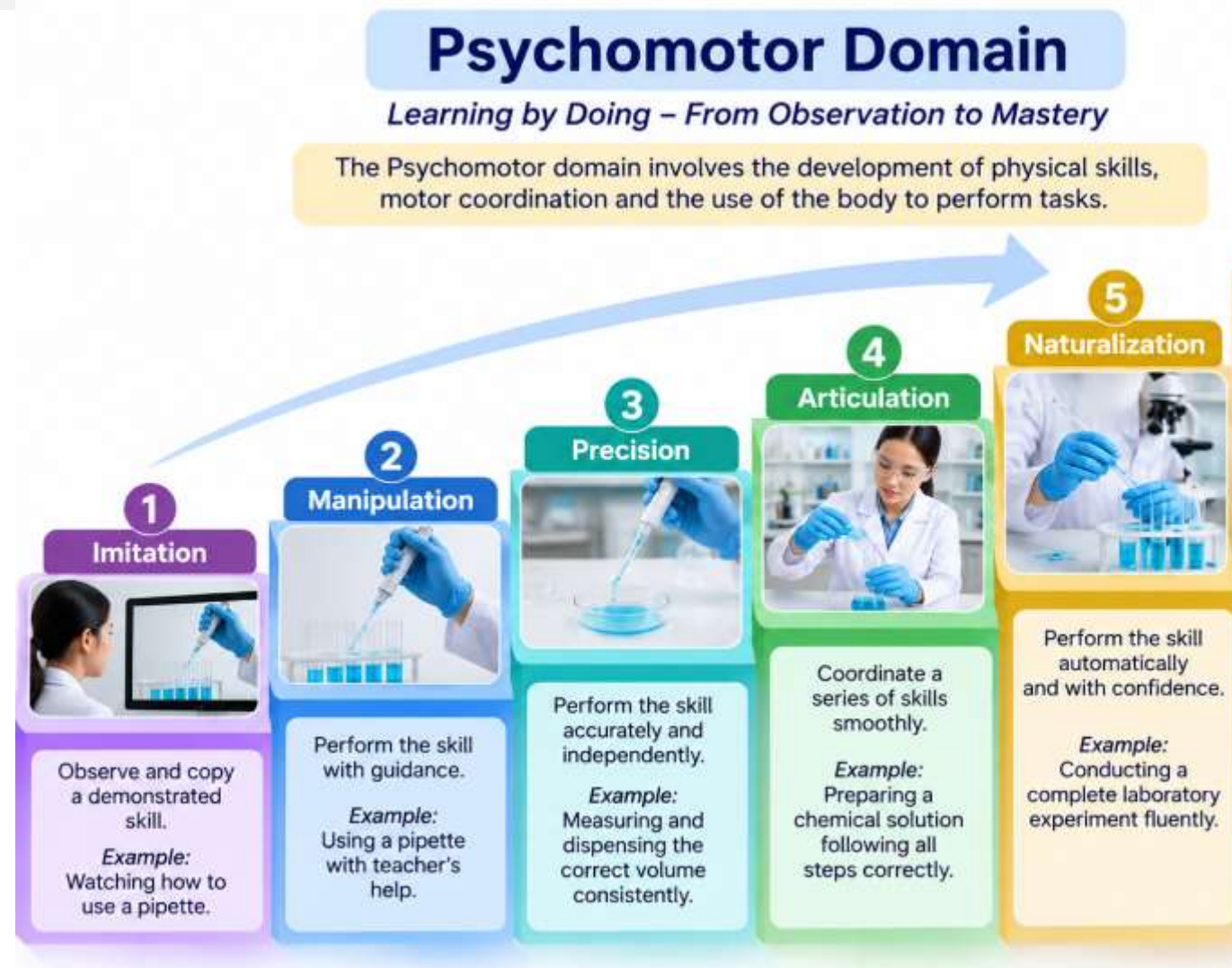
Imitation: It includes the demonstration of a skill by a skilled person, and the learner tries to follow the same.

Manipulation: A learner tries to experiment various aspects, such as manipulating machinery, equipment, etc.

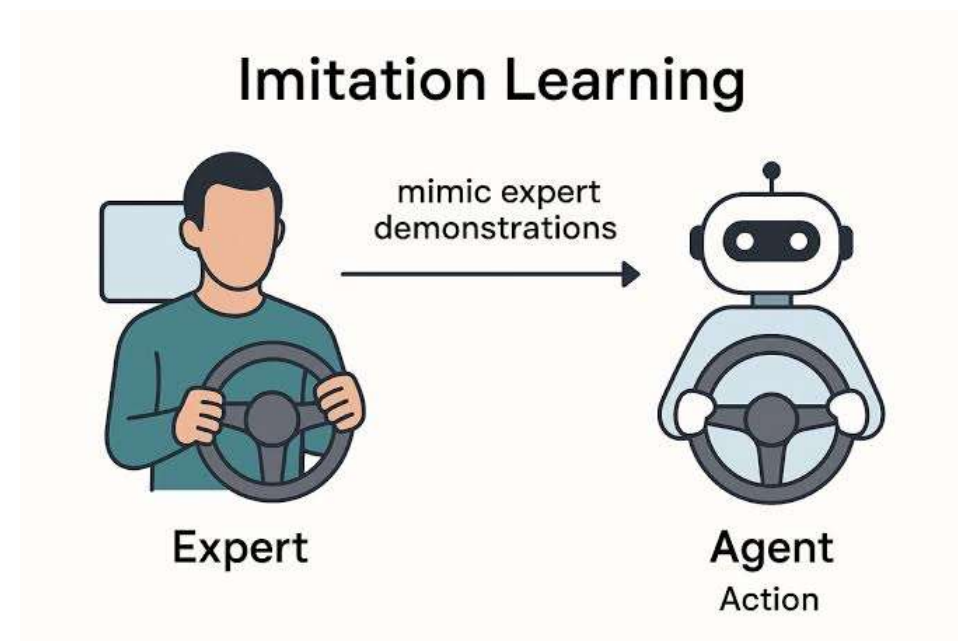
Precision: Accuracy is performing various acts increases with practice.

Articulation: Achieving a desired level of efficiency and effectiveness through practice.

Naturalization: Skill is internalized, and an individual is able to adapt, modify or design new techniques, methods or procedures according to the requirements of a situation.



Imitation



Observing and patterning behavior after someone else. Performance may be of low quality.

- **Examples:** Copying a work of art. Performing a skill while observing a demonstrator.
- **Key Words:** copy, follow, mimic, repeat, replicate, reproduce, trace

Manipulation



Being able to perform certain actions by memory or following instructions.

- **Examples:** Being able to perform a skill on one's own after taking lessons or reading about it. Follows instructions to build a model.
- **Key Words:** act, build, execute, perform

Precision



Refining, becoming more exact. Performing a skill within a high degree of precision

- **Examples:** Working and reworking something, so it will be “just right.” Perform a skill or task without assistance. Demonstrate a task to a beginner.
- **Key Words:** calibrate, demonstrate, master, perfectionism

Articulation



Coordinating and adapting a series of actions to achieve harmony and internal consistency.

- **Examples:** Combining a series of skills to produce a video that involves music, drama, color, sound, etc. Combining a series of skills or activities to meet a novel requirement.
- **Key Words:** adapt, constructs, combine, creates, customize, modifies, formulate

Naturalization



Mastering a high level performance until it become second-nature or natural, without needing

- **Examples:** Maneuvers a car into a tight parallel parking spot. Operates a computer quickly and accurately. Displays competence while playing the piano. Michael Jordan playing basketball or Nancy Lopez hitting a golf ball.
- **Key Words:** create, design, develop, invent, manage, naturally to think much about it.

Selection of Teaching Methods: Cognitive Domain

Sub-levels of Cognitive Domain	Teaching Methods
Remember	Lecture, discussion, demonstration, cooperative learning, study tour, question-answer etc.
Understand	Suggested reading, practices, home assignment, case study, role play
Apply	Practice, problem solving, assignment etc
Analyze	Problem based learning, assignment, case study, brain storming, inquiry based learning
Evaluate	Assignment, discussion, review work,
Create	Debate, assignment, group work, competition



Selection of Teaching Methods: Affective Domain

Sub-levels of Affective Domain	Teaching Methods 
Receiving	Lecture, directing reading, group discussion, demonstration, cooperative learning, study tour, question-answer etc
Responding	Lecture, group discussion, cooperative learning, field trip, question-answer etc
Valuing	Suggested reading, lecture, discussion etc
Organizing	Field trip, discussion, video, Role- playing
Characterization	Assignment, discussion, review work, practice

Selection of Teaching Methods: Psychomotor Domain

Sub-levels of Psychomotor Domain	Teaching Methods
Imitation	Observation, Practice, demonstration, video
Manipulation	Practice, Do it by yourself, exercise
Precision	Practice & practice, feedback, exercise
Articulation	Practice, observation, exercise
Naturalization	Practice under adverse condition



Formative and Summative Assessments



Formative Assessments

- Ongoing assessments (e.g., quizzes, discussions)
- Provide feedback to guide learning

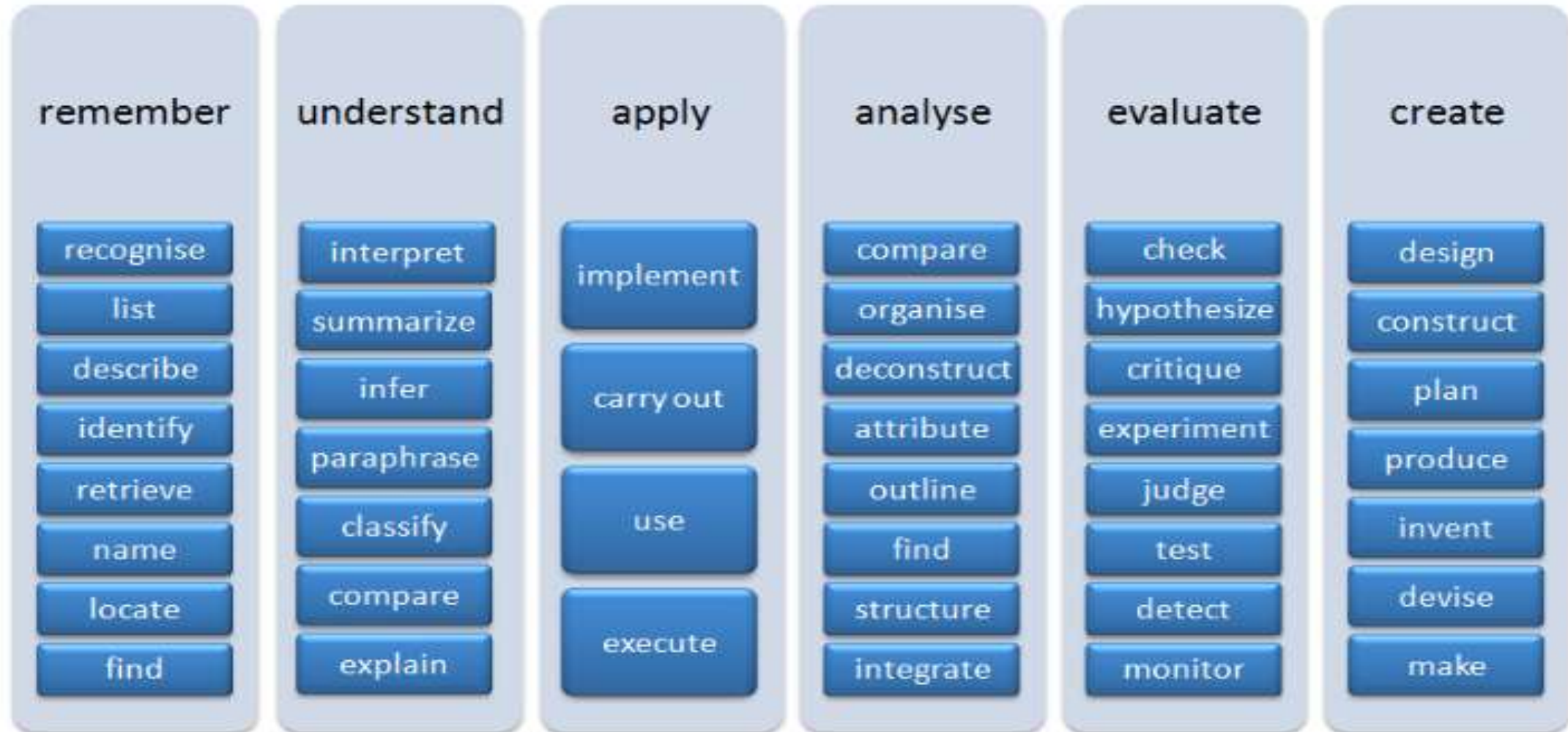


Summative Assessments

- Final assessments that evaluate the overall achievement of learning outcomes (e.g., exams, projects)
- Used to determine if students have met the desired outcomes

LOTS (lower order thinking skills)

HOTS (higher order thinking skills)



Exercise: Simple Linear Regression structured across the six levels of Bloom's Taxonomy

📌 Level 1: Remember (LOTS)

Students recall core theoretical assumptions, definitions, and exact algebraic formulas.

Verb: State / Define

Target Assessment: Quiz or fundamental exam questions.

Example Tasks:

- **State** the four core assumptions of the Classical Linear Regression Model (CLRM) regarding the error term (linearity, independence, homoscedasticity, normality).
- Write out the formal mathematical equations for the Ordinary Least Squares (OLS) estimators $\hat{\beta}_0$ and $\hat{\beta}_1$.

Exercise: Simple Linear Regression structured across the six levels of Bloom's Taxonomy

💡 Level 2: Understand (LOTS)

Students explain the conceptual meaning behind the math and interpret computer-generated statistical outputs.

Verb: Interpret / Explain

Target Assessment: Short-answer conceptual questions.

Example Tasks:

- Given an R or SPSS regression output, **interpret** the exact meaning of the slope coefficient ($\hat{\beta}_1$) and the intercept ($\hat{\beta}_0$) in the context of a real-world economic dataset.
- **Explain** what the Coefficient of Determination (R^2) measures, and why an R^2 close to 1 does not automatically prove a cause-and-effect relationship.

Exercise: Simple Linear Regression structured across the six levels of Bloom's Taxonomy

Level 3: Apply (LOTS)

Students perform calculations on fresh datasets and use statistical software to execute regression steps.

Verb: Compute / Estimate

Target Assessment: Practical lab assignment or structured exam problem.

Example Tasks:

- Using a provided matrix dataset of 30 sample points, manually **compute** the residual sum of squares (RSS) and the total sum of squares (TSS).
- Write a script in R to fit a linear regression line to a sample dataset, plot the regression line, and output the analysis of variance (ANOVA) table.

Exercise: Simple Linear Regression structured across the six levels of Bloom's Taxonomy

🔍 Level 4: Analyze (HOTS)

Students check whether the underlying mathematical assumptions of a model hold true and identify issues.

Verb: Diagnose / Deconstruct

Target Assessment: Diagnostic lab report.

Example Tasks:

- **Analyze** a set of residual plots (Residuals vs. Fitted, Normal Q-Q) generated from a dataset. Identify whether the assumptions of homoscedasticity and normality have been violated, and point out any influential outliers or leverage points.
- **Deconstruct** a multiple regression model to examine how the addition of a new independent variable changes the adjusted R^2 and the standard errors of the existing coefficients.

Exercise: Simple Linear Regression structured across the six levels of Bloom's Taxonomy

⚖️ Level 5: Evaluate (HOTS)

Students critique competing models, assess methodologies, and validate statistical arguments.

Verb: Critique / Justify

Target Assessment: Critical review essay or model comparison presentation.

Example Tasks:

- Compare two different regression models built on the same dataset (e.g., a linear model vs. a log-linear model). Evaluate which model provides a better, more parsimonious fit based on Akaike Information Criterion (AIC), R^2 , and residual diagnostics.
- **Critique** a published peer-reviewed economics paper's regression methodology, evaluating whether their data collection suffered from selection bias or omitted variable bias.

Exercise: Simple Linear Regression structured across the six levels of Bloom's Taxonomy

Level 6: Create (HOTS)

Students synthesize their theoretical knowledge to build, test, and defend a statistical model from scratch.

Verb: Formulate / Model

Target Assessment: End-of-term research project.

Example Tasks:

- **Formulate** an original research question regarding a social or economic phenomenon. Collect raw data from public databases (like the World Bank or BBS), build a predictive linear model, handle any assumption violations using data transformations, and compile a comprehensive 10-page statistical report defending your findings.

Example Transformation

(Topic: Water Cycle)

Original Question: What is evaporation?

Remember: *Define* evaporation.

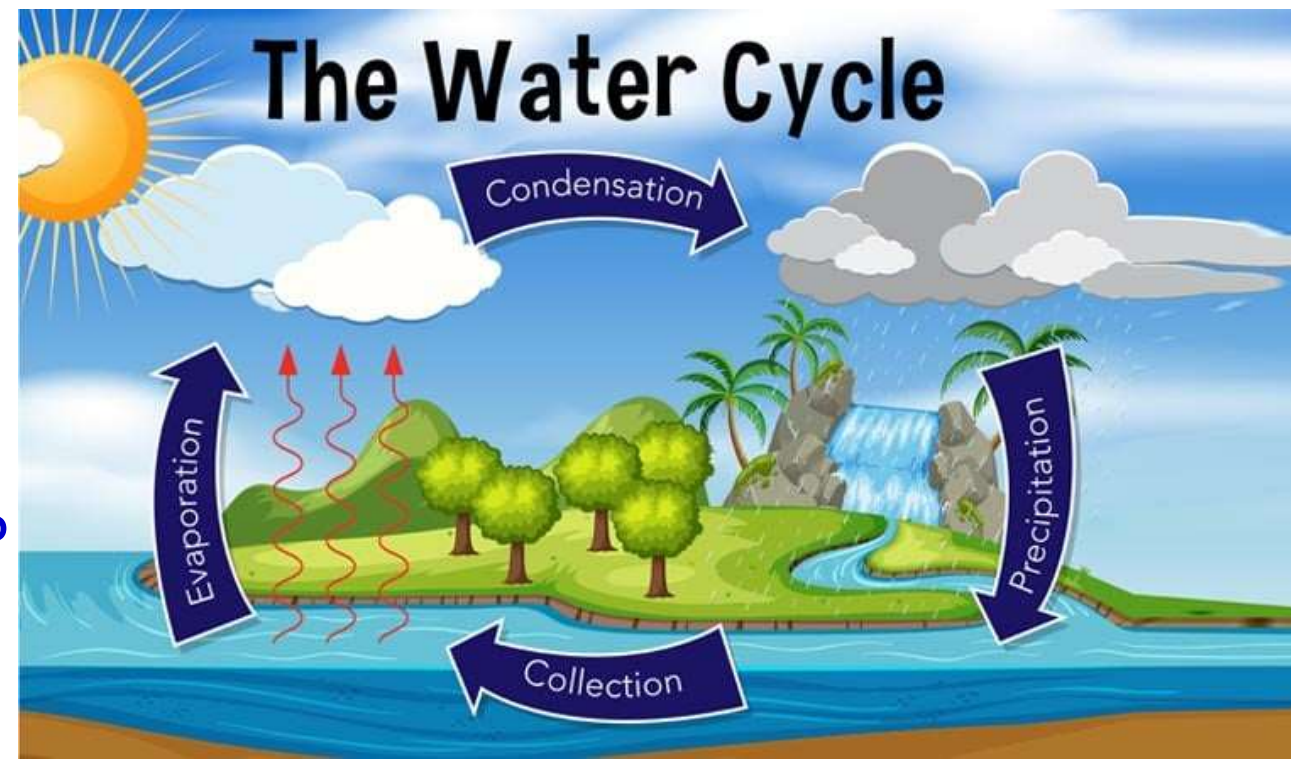
Understand: *Explain* how water turns into vapor during the water cycle.

Apply: *Demonstrate* how heat speeds up the evaporation process in an experiment.

Analyze: *Compare* the rate of evaporation in a warm room versus a cold room.

Evaluate: *Judge* whether high humidity slows down evaporation more than wind speed does.

Create: *Design* a mini-model to simulate evaporation and precipitation at home.



Key Reasons to Prefer Bloom's Taxonomy

1. Simple and Easy to Understand

The six levels are clear and logical:

Remember → Understand → Apply → Analyze → Evaluate → Create



2. Shows Cognitive Progression

It helps us understand whether students can simply recall information or can apply, analyze, evaluate, and create using their knowledge.

Key Reasons to Prefer Bloom's Taxonomy

3. Useful for Question Setting

The same topic can be assessed at different cognitive levels:

Remember: What is evaporation?

Understand: Explain the process of evaporation.

Apply: Calculate the rate of evaporation.

Analyze: Analyze the factors affecting evaporation.

Evaluate: Evaluate different methods of reducing evaporation.

Create: Design an experiment to investigate evaporation.

Key Reasons to Prefer Bloom's Taxonomy

4. Strong Alignment with OBE

Bloom's Taxonomy helps align CLOs, teaching-learning activities, and assessment methods.

5. Helps Determine Cognitive Demand

A question may be difficult without necessarily requiring higher-order thinking. Bloom's helps us identify the actual cognitive level demanded by an assessment task.

6. Useful for Question Papers and ToS

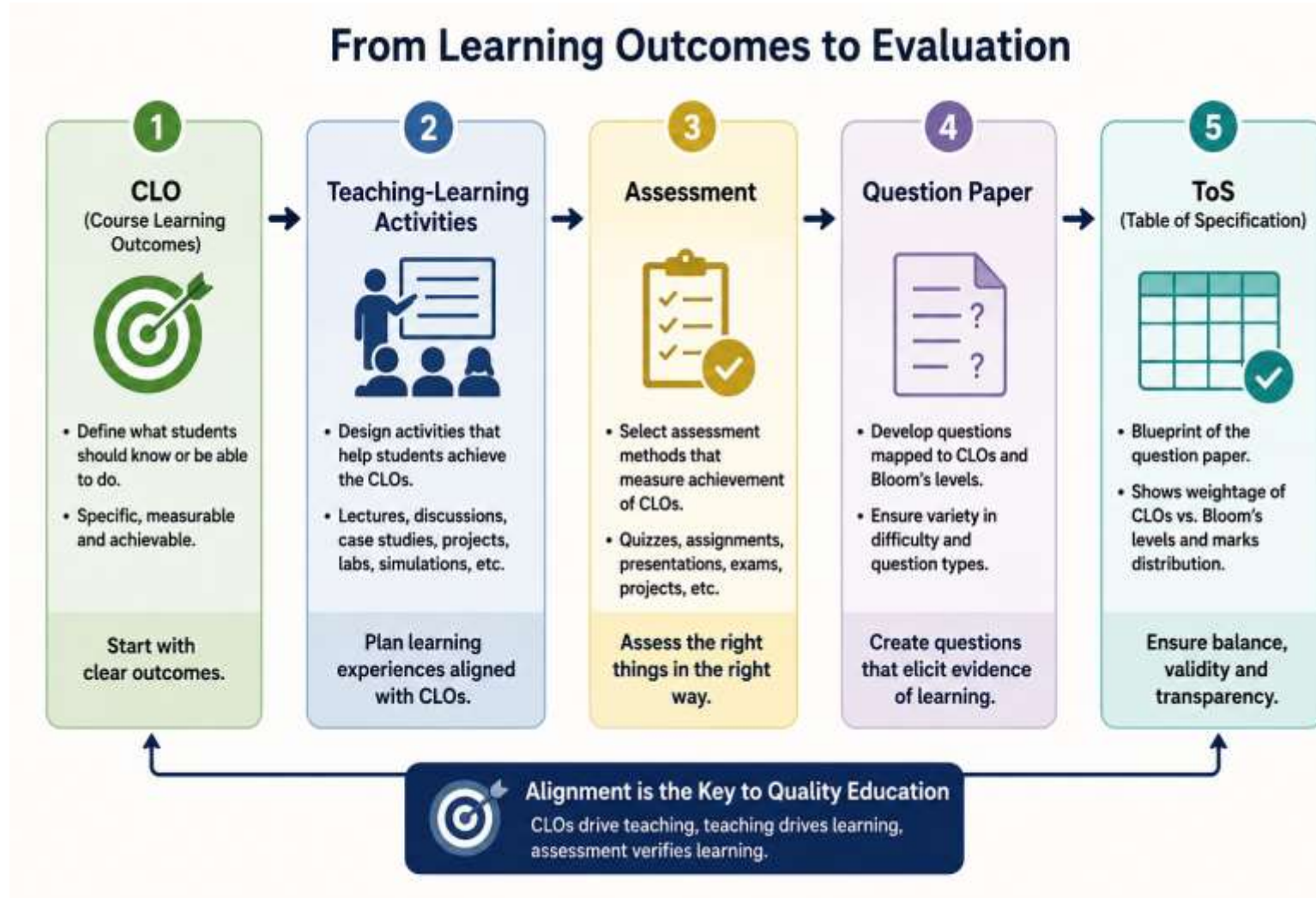
It provides a practical framework for distributing questions across different cognitive levels when preparing a Table of Specifications (ToS).

7. Widely Recognized and Used

Bloom's Taxonomy is familiar to teachers, curriculum designers, accreditation bodies, and educational institutions worldwide, making it easier to communicate and implement.

Key Reasons to Prefer Bloom's Taxonomy

For **OBE and accreditation**, its particular strength is that it helps create a clear alignment:



“Bloom’s Taxonomy is not the only taxonomy, but it is one of the most practical frameworks for designing, delivering, and assessing learning outcomes.”

References

Bloom, B.S. (Ed.). Engelhart, M.D., Furst, E.J., Hill, W.H., Krathwohl, D.R. (1956). [Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain](#). New York: David McKay Co Inc.

Anderson, L.W., & Krathwohl (Eds.). (2001). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. New York: Longman.

