Introduction to Outcome-based Education (OBE)

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What is Outcome Based Education (OBE)

— An educational approach that focuses on defining desired learning outcomes and aligning instructional strategies, assessment methods, and learning experiences to achieve those outcomes.

— Shifts the focus from teaching to learning

— Emphasizes the mastery of specific knowledge, skills, and competencies by students

— Promotes student-centered learning and active engagement

— Students should achieve their goal by the end of the educational process.

— Aims to maximize student learning outcomes by developing their knowledge & skills.

– OBE involves the restructuring of curriculum, assessment and reporting practices in education to reflect the achievement of high order learning and mastery rather than accumulation of course credits.

– It requires that the students demonstrate that they have learnt the required skills and content

*OBE means starting with a clear picture of what is important for students to be able to **do**, then **organizing the curriculum, instruction** and **assessment** to make sure that this learning **ultimately happens.** (Spady, 1994).*

Principles of Outcome-Based Education

– Clarity: Clearly define and communicate expected learning outcomes

– Alignment: Ensure alignment between outcomes, teaching strategies, and assessment methods

– Student-Centeredness: Focus on individual student needs, interests, and abilities

– Continuous Improvement: Regularly evaluate and improve the educational process based on feedback and outcomes assessment

OBE addresses the following key questions:

–   What do you want the students to have or able to do?
    [Knowledge, Skills, ability to solve problems etc.]

–   How can you best help students achieve it?
    [Student-centered Learning]

–   How will you know whether they have achieved it?
    [Through various assessment schemes]

–   How do we close the loop for further improvement
    [Continuous Quality Improvement (CQI)

Some important aspects/components of the Outcome Based Education

- **Vision:** futuristic statement that the institution would like to achieve over a long period of time.

- **Mission:** the means by which it propose to move toward the stated vision.

- **Programme**

  - defined as the specialization or discipline of a Degree.

  - interconnected arrangement of courses, co-curricular and extracurricular activities to accomplish predetermined objectives leading to the awarding of a degree.

- **Programme Learning Outcomes (PLOs)**

  - narrower statements that describe what students are expected to be able to do or attain by the time of graduation.

  - relate to the skills, knowledge and behaviour that students acquire through the completion.

  - expected to be aligned closely with Graduate Attributes.

- **Program Educational Objectives (PEOs)**

  the statements that describe the expected achievements of graduates in their career, and also in particular, what the graduates are expected to perform and achieve during the first few years after graduation.

- **Course:** defined as a theory, practical or theory cum practical subject studied in a semester.

- **Course Learning Outcome (CLO):** statements that describe significant and essential learning that learners have achieved and can reliably demonstrate at the end of a course.

- **Mapping/Alignment:** aligning objectives with outcomes (programme, course-level, contents).

  OBE tends to map at different levels by aligning itself to Bloom's Taxonomy's cognitive, affective, and psychomotor domains.

- **Graduate Attributes (GA):** attributes that are expected in a graduate from a programme.

Major Benefits

- Makes the programme student-centric
- Better tracking the learning of students
- Engaging with students in a better way
- More directed curriculum, reviewing and revising
- Better assessment
- Meeting accreditation requirements
- Enhanced student learning and engagement
- Increased relevance and applicability of education to real-world contexts
- Improved accountability and transparency in education
- Facilitates personalized and adaptive learning experiences
- Promotes critical thinking, problem-solving, and lifelong learning skills

Challenges of Implementing Outcome-Based Education

- Resistance to change among faculty and staff

- Time-consuming process of designing and assessing outcomes

- Ensuring consistency and standardization across programs

- Balancing flexibility and specificity in outcome statements

- Incorporating technology effectively to support OBE

Implementing OBE: The role of university teachers

o Designing curriculum

o Aligning teaching methods and resources with learning outcomes

o Engaging students through active learning strategies

o Providing timely and constructive feedback

o Collaborating with colleagues for continuous improvement

Bangladesh Accreditation Council (BAC) Standards for Accreditation of Academic Program

1: Governance

2: Leadership, Responsibility and Autonomy

3: Institutional Integrity and Transparency

4: Curriculum

5: Teaching-Learning & Assessment

6: Student Admission & Support Services

7: Faculty & Professional Staff

8: Facilities & Resources

9: Research & Scholarly Activities

10: Monitoring, Evaluation & Continual Improvement

Bloom's taxonomy

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

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

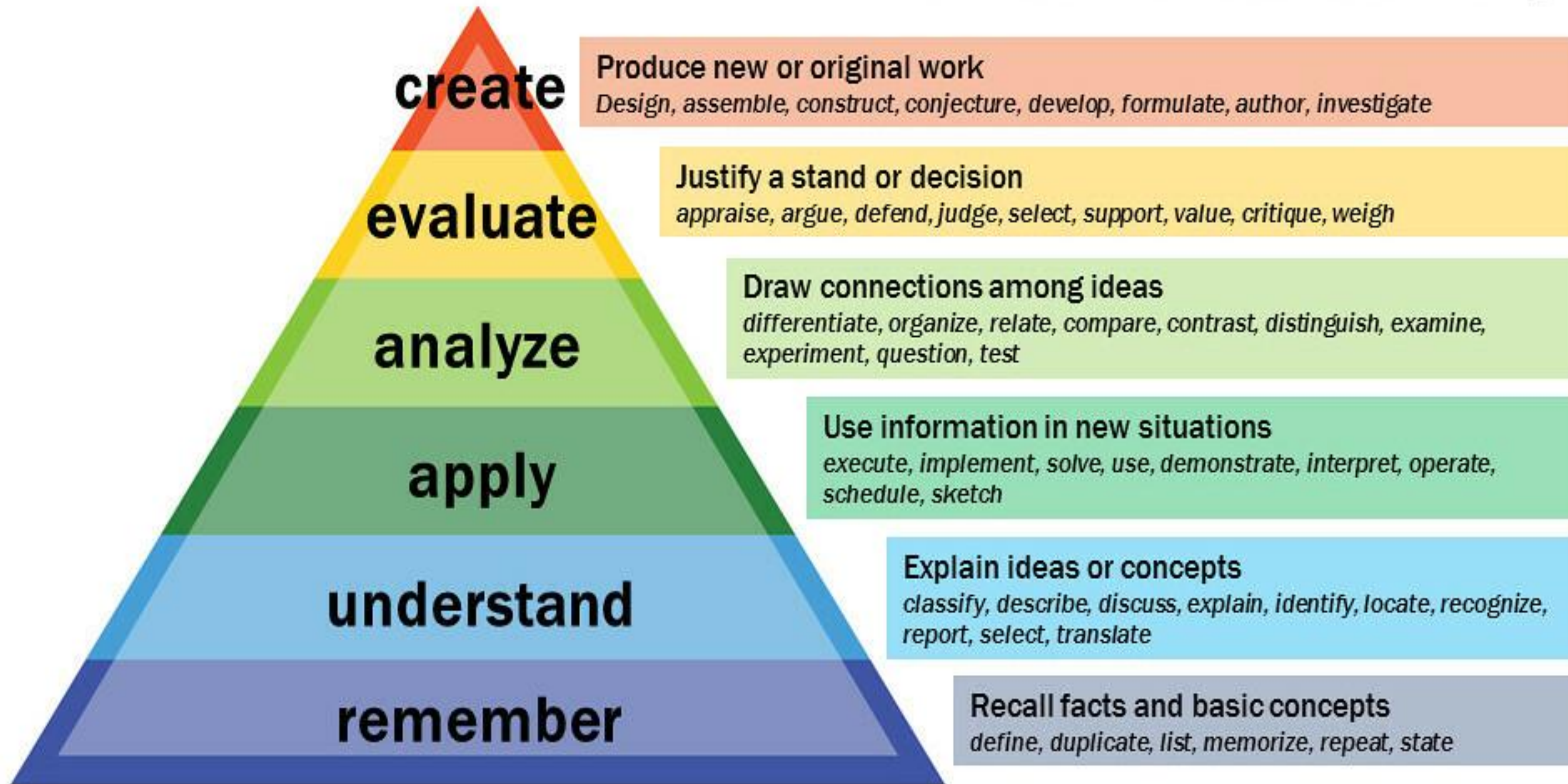| Cognitive	Affective	Psychomotor
learners' ability to process information in a meaningful way	*learners' attitudes and feeling that are a result of the learning process*	*learners' ability to use motor skills to learn*
Categories - Knowledge - Comprehension - Application - Analysis - Synthesis - Evaluation	**Categories** - Receiving - Responding - Valuing - Organizing - Characterizing	**Categories** - Perception - Set - Guided Response - Mechanism - Complex over response - Adaptation - Origination
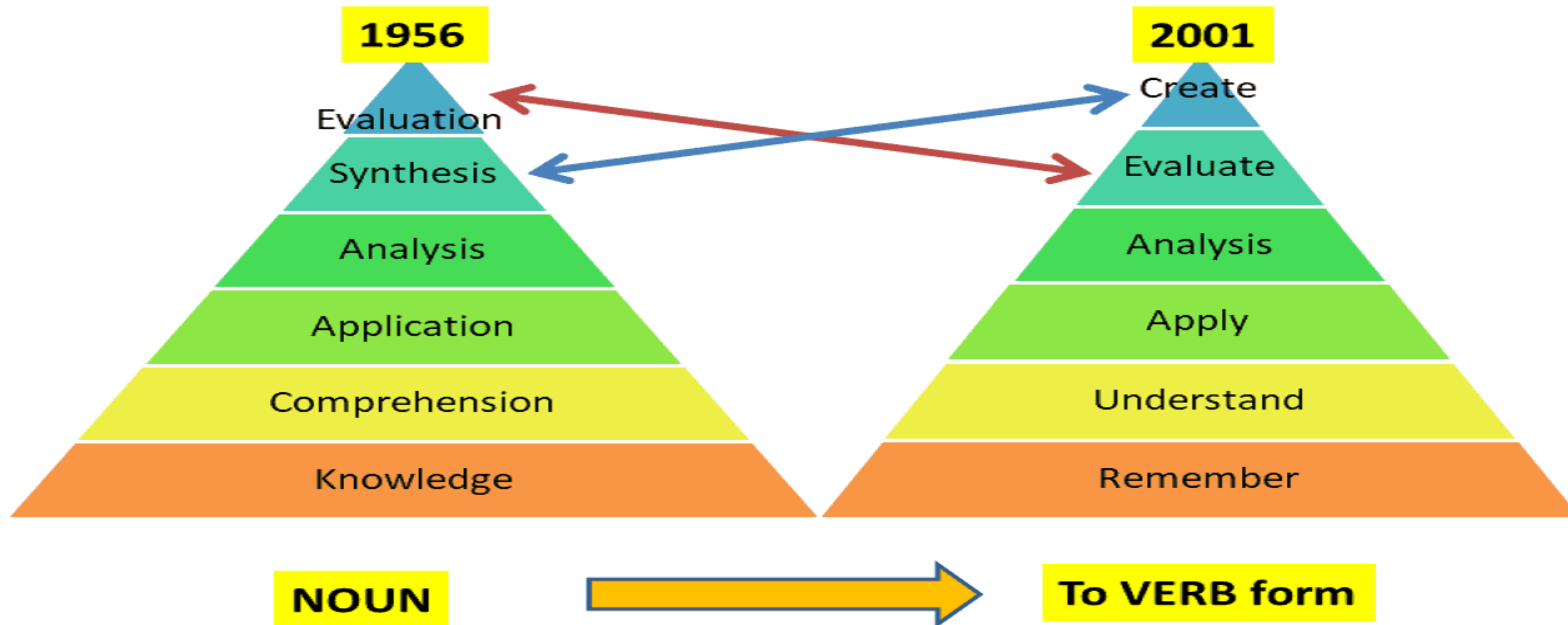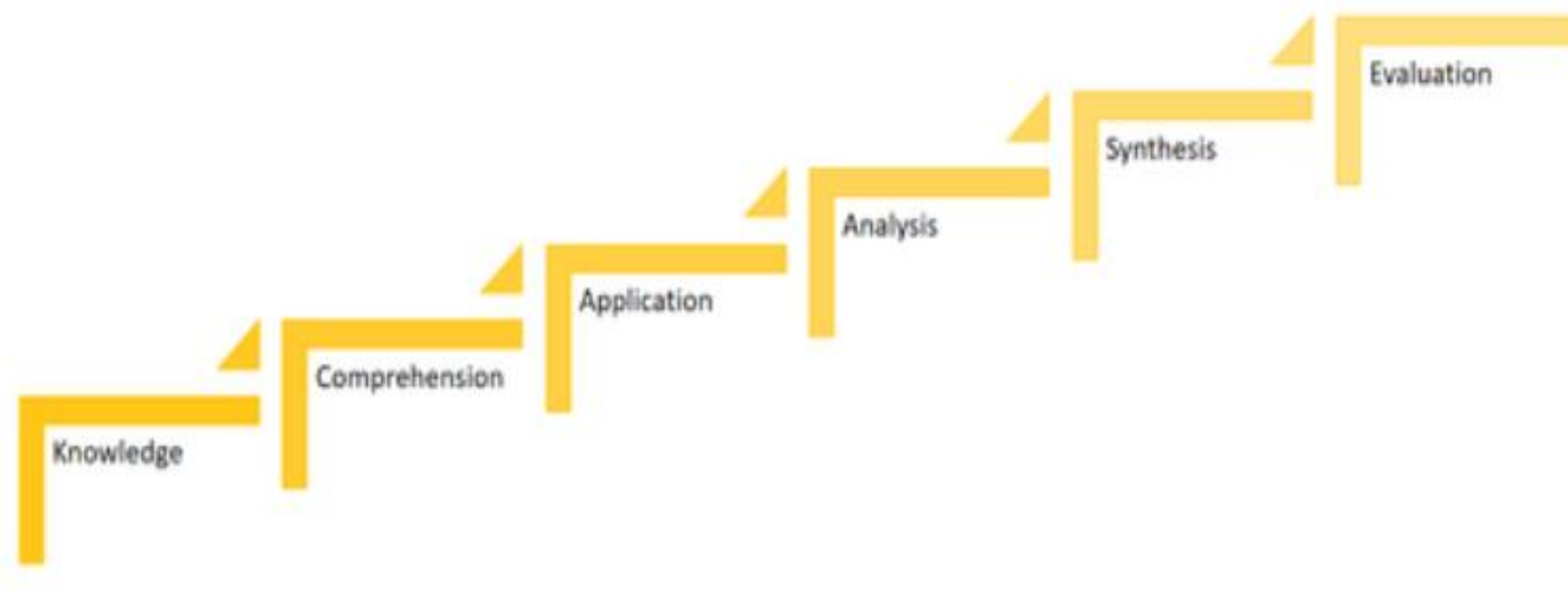
The hierarchy of the cognitive domain of Bloom's Taxonomy (1956).

Revision to Bloom's cognitive hierarchy (2001)

Bloom's Taxonomy

create — Produce new or original work
Design, assemble, construct, conjecture, develop, formulate, author, investigate

evaluate — Justify a stand or decision
appraise, argue, defend, judge, select, support, value, critique, weigh

analyze — Draw connections among ideas
differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test

apply — Use information in new situations
execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch

understand — Explain ideas or concepts
classify, describe, discuss, explain, identify, locate, recognize, report, select, translate

remember — Recall facts and basic concepts
define, duplicate, list, memorize, repeat, state

Action Verbs by Domains

Action Verbs by Domains 1

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

thank you!