

Design of Study Programmes

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HEAD OF QA, UNIVERSITE DES MASCAREIGNES, MAURITIUS

MONDAY 15 JUNE 2026

13:30 - 15:00 SOUTH AFRICA (GMT+2) / 15:30 – 17:00 MAURITIUS (GMT+4)

Overview

- Reference to ASG-QA Part A: Standard 7 (Design, approval, monitoring and evaluation of study programmes)
- The Shift from Teaching to Learning
- Study Programme Development
- Constructive Alignment
- Bloom's Taxonomy and How to Formulate Learning Outcomes
- Examples from UdM: challenges and solutions

Intended Learning outcomes

By the end of this workshop, you will be able to:

- **Explain** the requirements of **ASG-QA Part A, Standard 7** in relation to the design, approval, monitoring, and evaluation of study programmes.
- **Identify** the key stages and principles involved in effective study programme development.
- **Explain** key concepts related to outcome-based education
- **Apply tools and approaches such as** constructive alignment in study programme development.
- **Apply** Bloom's Taxonomy to formulate measurable and student-centred learning outcomes.
- **Propose** practical solutions to improve programme design, alignment, and learning outcome formulation within your own academic context.



Terminology used...

Study Programme

A **study programme** is a structured programme of study leading to a specific qualification or award (e.g., **Bachelor of Science (Hons) in Human Resource Management (BSc HRM)**).

Curriculum

The **curriculum** refers to the overall educational plan and learning experience of a study programme. It includes the planned order of topics and activities within the study programme.

Module

A **module** is an individual unit of study within a programme. Each module focuses on a specific subject area. Examples within a BSc HRM programme may include *Human Resource Management*, *Organisational Behaviour*, and *Employment Law*.

Quick pulse ...

Question:

In how many study programme development/reviews have you been involved?

- a.** *0 (No experience at all)*
- b.** *1 to 2 projects (Limited experience)*
- c.** *3 to 5 projects (Moderate experience)*
- d.** *6 projects and above (Extensive experience)*

Please enter your response by typing the **character only (a-d) in the chat box**

ASG-QA

ASG-QA



**AFRICAN
STANDARDS AND
GUIDELINES FOR
QUALITY ASSURANCE
IN HIGHER EDUCATION
(ASG-QA)**



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ASG – Standard 7

Standard 7. Design, Approval, Monitoring and Evaluation of Study Programmes

Standard

*The institution shall have **policies and systems that ensure the design and development, monitoring and evaluation of quality, relevant study programmes that are learning outcomes-based and aligned with the needs of stakeholders; and that contribute to the achievement of its mission, and are commensurate with national, regional and international standards.***

*In the case of **ODL**, the provider shall have in place mechanisms for **pre-testing or piloting the learning materials** to ensure that they are at the learners' level and that the learners will be able to use them without difficulty.*

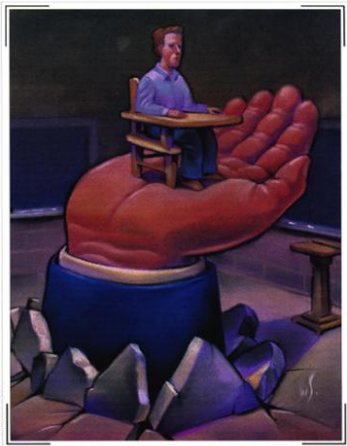
The institution:

- a) Has **policies, procedures and processes for introducing new programmes with learning outcomes** and that are competence-based, and for amending or phasing out standing programmes and programmes are subject to continuous monitoring and evaluation (including periodic external review) and development to ensure currency, quality and relevance;
- b) Has **academic programmes that are in line with its mission and objectives** and **address the expectations and needs of stakeholders**; therefore, the programmes show range, depth, coherence, quality and relevance; are up to date and adequate in content and scope, promoting core content, ideas, values and the acquisition of employability skills, such as work-related learning/ internship/traineeship;
- c) Ensures that **programme structures and credit hours/units are in accord with international norms** for the amount of study required for each qualification it offers (or for the level of the qualifications awarded); and that programmes are **approved by the relevant national QAA and professional bodies**, where applicable;
- d) Has **effective mechanisms for stakeholder participation** in curriculum design, review & validation with feedback from students, alumni & employers;
- e) Has **policies requiring formulated learning outcomes** to be defined and documented for all programmes and courses, and ensures that the programme specifications are accessible to learners (or stakeholders);
- f) Has **structures and procedures for the approval of programmes by relevant bodies**, such as the Senate, and authorities such as professional bodies, if applicable;
- g) Has programmes that **are delivered by adequate, qualified and competent staff** with pedagogical skills;
- h) Has **appropriate formal agreements for all programmes offered in partnership with other institutions**, specifying in detail the roles and responsibilities of both partners, including teaching commitments and QA arrangements; and
- i) Ensures that the **formulated learning outcomes are benchmarked against level descriptors of national or regional Qualifications Frameworks**, as applicable.

ASG – Standard 7

In the case of ODL, the pre-testing of learning materials is essential for ensuring that the learners will be able to achieve the objectives or intended learning outcomes. The broad requirement of pretesting should be made available, for example:

- a) Students' understanding of the objectives
- b) Language of presentation
- c) Explanation of concepts, ideas and theories
- d) Use of examples for illustration
- e) Activities and practice exercises given and feedback provided
- f) Use of symbols or icons
- g) Navigational devices for online materials
- h) Motivate and sustain learners' interests and
- i) Use didactic concepts in writing modules



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FROM TEACHING *to*
LEARNING —

A New Paradigm for Undergraduate Education

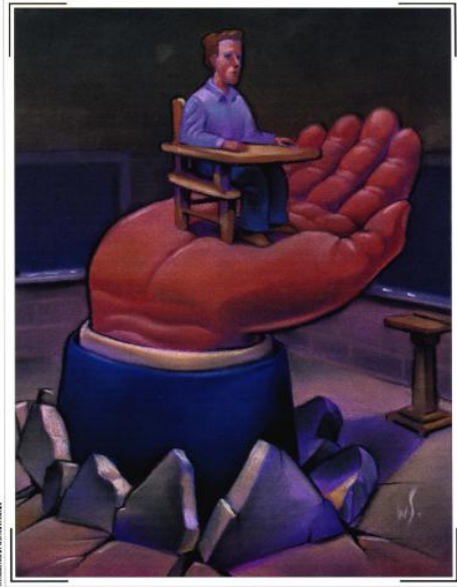
By ROBERT B. BARR AND JOHN TAGG



The shift from teaching to Learning

by Robert Barr and John Tagg

The shift from Teaching to Learning



CHANGE • NOVEMBER/DECEMBER 1995

“To say that the purpose of universities is to provide instruction is like saying that General Motors’ business is to operate assembly lines or that the purpose of medical care is to fill hospital beds. We now see that our mission is not instruction but rather that of ***producing learning with every student by whatever means works best***”

FROM TEACHING to LEARNING —

A New Paradigm for Undergraduate Education

BY ROBERT B. BARR AND JOHN TAGG



Ref: Barr, R. B., & Tagg, J. (1995). From Teaching to Learning: A New Paradigm for Undergraduate Education. Change, 27(6), 12–26.

From Teaching
to Learning : a
new paradigm?

***“ The significant problems we face cannot
be solved at the same level of thinking
we were at when we created them”***

ALBERT EINSTEIN



From Teaching
to Learning : a
new paradigm?



FIXING OUR BROKEN PLANET

• **This is an emergency.
All hands on deck.**

• We are in a planetary emergency, an unprecedented period in our planet's history. As our demand for food, materials and energy soars, the health of forests and oceans declines and countless species face extinction.

• We need a global response. Together, we have the power to make change. We can build more sustainable lifestyles, slow the rate of climate change and restore biodiversity while improving our own health in the process.

• The Natural History Museum is at the heart of a growing global community uniting scientific expertise with advocacy for the planet. Together, we can build a future where people and the planet thrive.

• Join us.

From Teaching to Learning : a new paradigm?



A changing world requires a new breed of graduates

- **Globalisation** – graduates must operate in **interconnected** and **multicultural** environments
- **Sustainability** challenges – climate change, resource depletion, social inequalities, and environmental degradation require graduates who can contribute to sustainable solutions.
- **Rapid technological change** – knowledge becomes obsolete faster than ever
- **Artificial Intelligence (AI)** – routine knowledge acquisition is increasingly automated, **requiring higher-order skills**
- **Future of work** – employers seek **adaptability, creativity, collaboration,** and problem-solving abilities
- **Lifelong learning** – graduates need to **continuously reskill and upskill** throughout their careers.

The traditional focus on what teachers teach is giving way to a focus on what students learn and can do.

The new learning paradigm

Traditional teaching paradigm	Learning centered paradigm
Knowledge transmission	Knowledge construction and creation
Teacher as an expert	Teacher as a facilitator/coach
Content coverage	Learning outcomes and competences
Passive learners	Active and engaged learners
Assessment of learning	Assessment for and as learning
Standardisation	Personalised and flexible learning
Relationships based on hierarchy and authority	Relationships based on partnership, dialogue, respect
Learning is linear and cumulative	Learning is iterative, interconnected and contextual

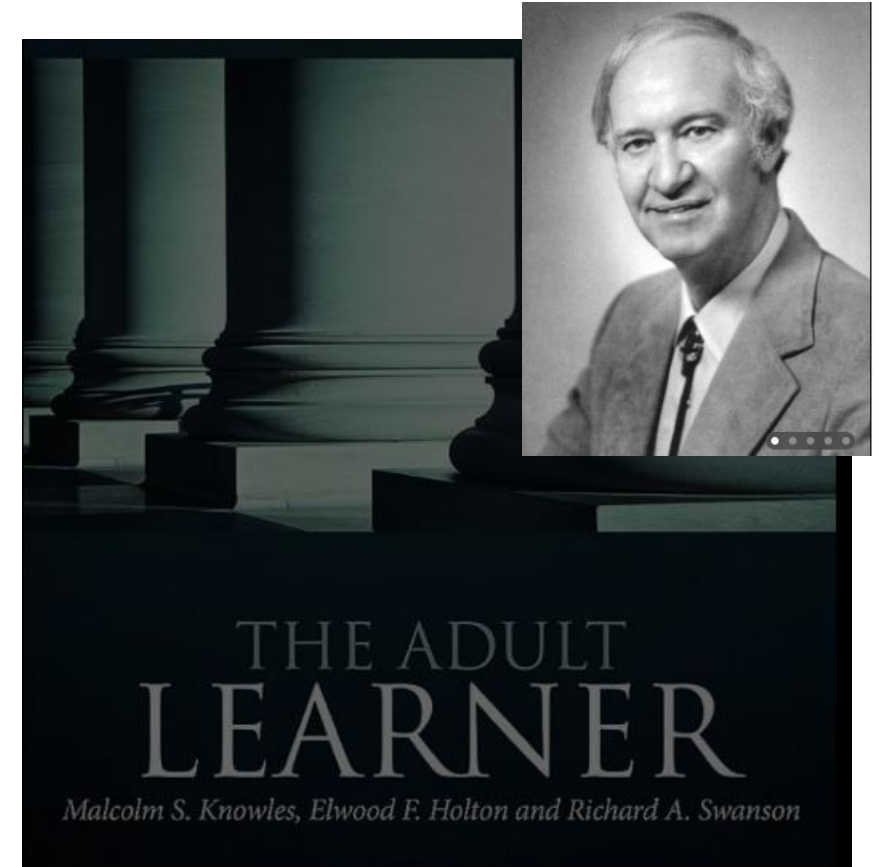


Linking the learning paradigm to andragogy

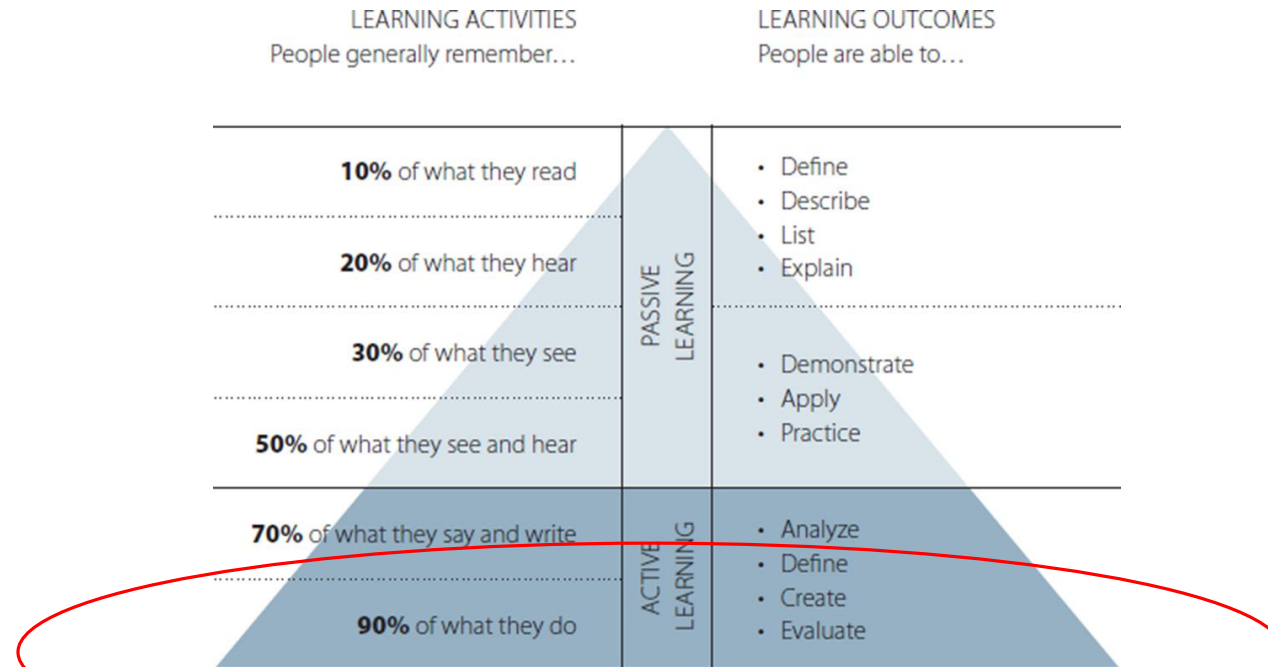
The shift from teaching to learning is closely aligned with **andragogy, the theory of adult learning** developed by Malcolm Knowles.

Andragogy assumes that adult learners:

- Are **self-directed** and **take responsibility for their learning**.
- Bring **valuable prior experiences** that enrich the learning process.
- Learn best when **learning is relevant to real-life** and professional contexts.
- Prefer **problem-centred** rather than **content-centred learning**.
- Are motivated by opportunities for **personal and professional development**.



Dale Cone of Learning



Source: Dale's Cone of Learning – SharpSchool on <https://cdn5-ss7.sharpschool.com>

Study program development

AND CONSTRUCTIVE ALIGNMENT

Study program development

A good study programme should be:

- Relevant (responds to institutional vision/mission and societal and labour market needs)
- Outcome-based (clear learning outcomes)
- Coherent (well-structured curriculum)
- Aligned (outcomes, teaching & learning activities, and assessment linked)
- Learner-centred (active and inclusive learning)
- Quality-assured (regular review and enhancement)
- Future-oriented (develops employability and lifelong learning)

Aspects to consider in study program development

Curriculum content and relevance

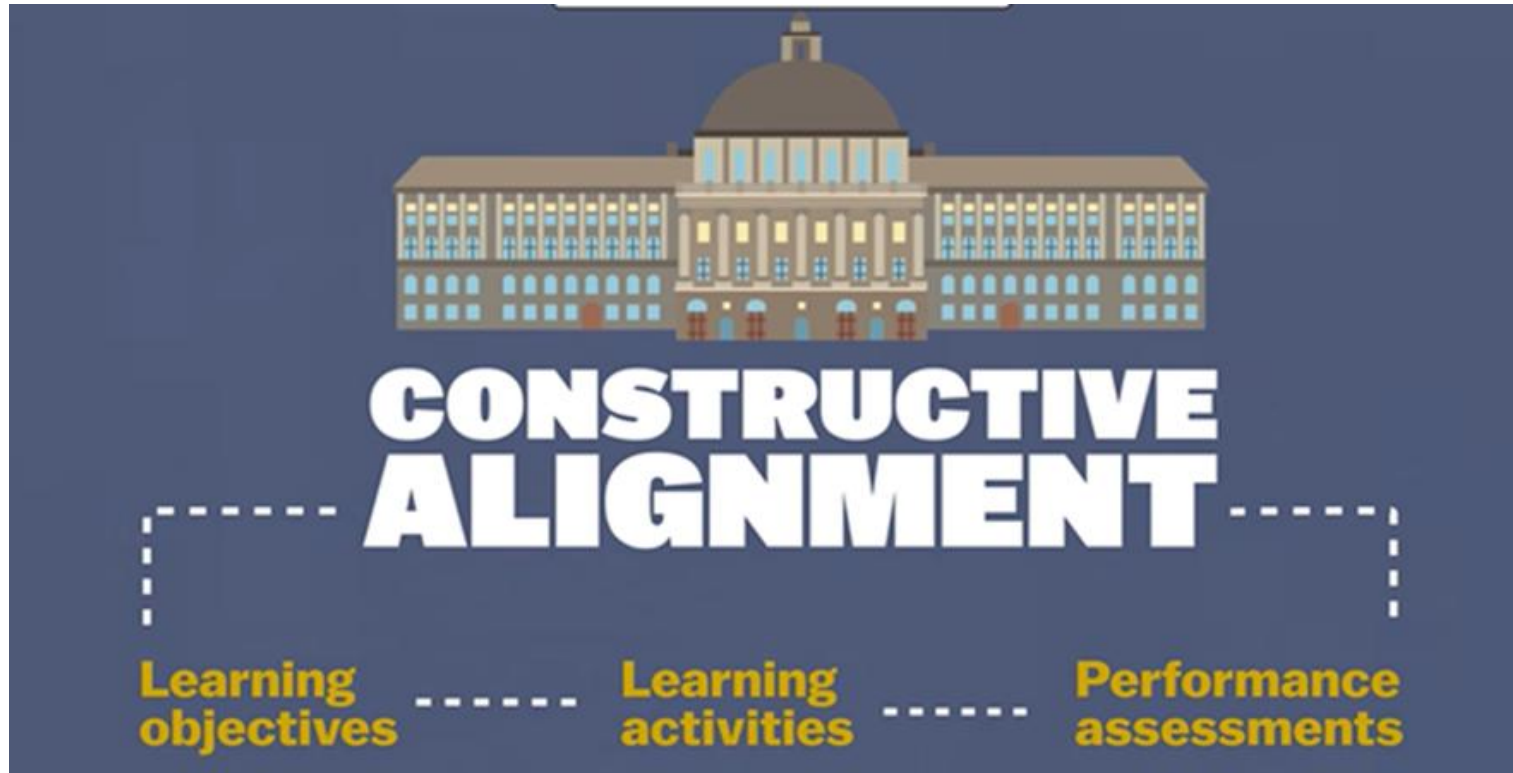
- Vision/mission/strategy of institution
- National / regional/ international agenda
- Objectives of Faculty
- Competence profile of graduates
- Labour market needs
- Stakeholder engagement
- Requirements to consider (CRPE/WA)
- Coherent, adequate objectives
- Target group

Designing the learning experience

- Teaching & Learning Strategies
- Assessment Techniques
- Compulsory/optional modules
- Credits/Workload
- Templates to consider

Operational considerations

- Lecturers/support staff available
- Infrastructure
- Recruitment/admission/RPL
- Approval/accreditation of programme
- Assessment rules/ logistics
- Internships/exchange
- Evaluation of programme



Constructive alignment

Constructive alignment on programme/module level

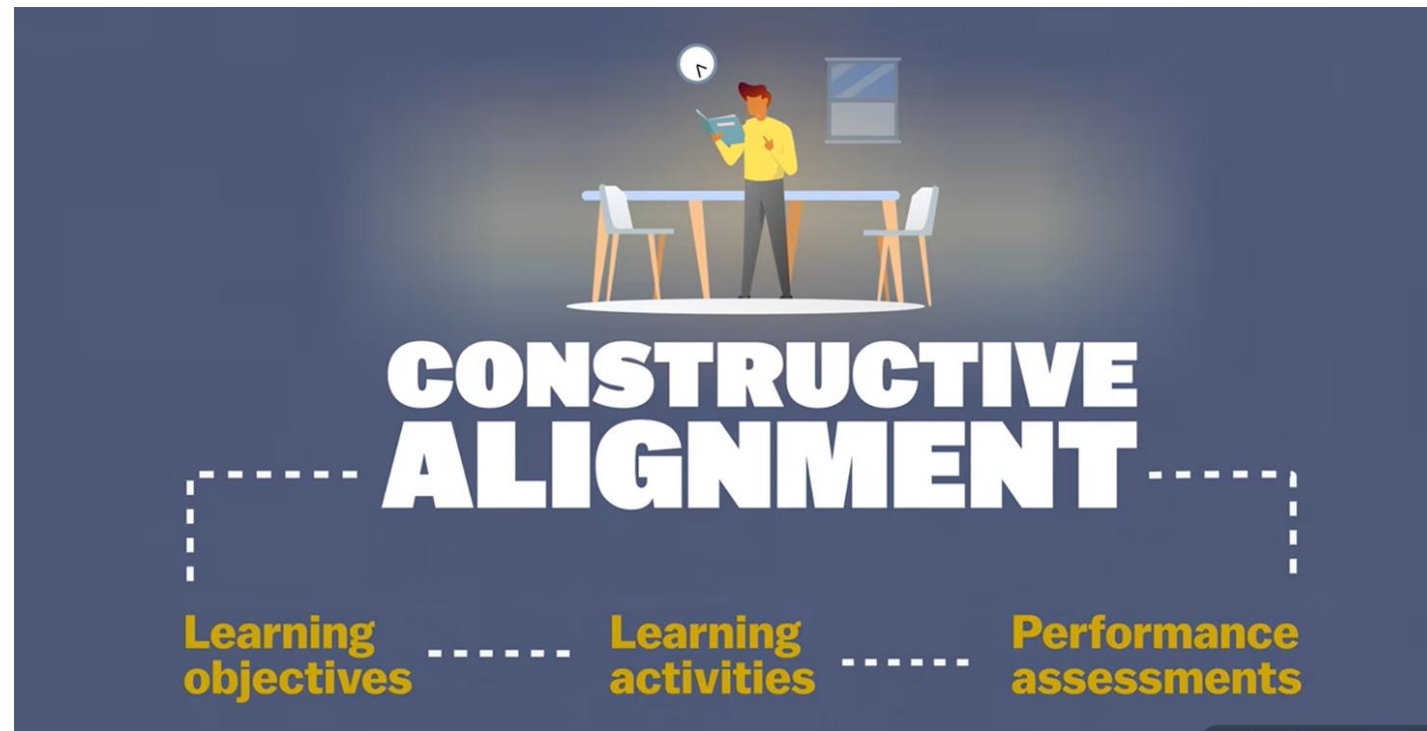
- Coined by **educational psychologist John Biggs**:
- Concept of constructive alignment: derived from **constructivist learning theory and instructional design principles**
- Constructivism emphasizes that **learners actively construct their own meaning, rather than passively receiving** knowledge transmitted by the teacher
- Biggs: proposes a framework to **translate constructivist principles into classroom decisions on teaching and assessment** involving :
 - Defining clear learning outcomes in terms of desired "performances of understanding"
 - Selecting teaching/learning activities (TLAs) that are likely to elicit those desired performances
 - Designing assessment tasks that evaluate the targeted performances



Constructive Alignment

<https://youtu.be/OliDjwLWs4I>

Constructive alignment by John Biggs and Catherine Tang




Bloom's Taxonomy

& FORMULATING LEARNING OUTCOMES




Bloom's Taxonomy

- Bloom's Taxonomy: a tool for designing and categorizing learning outcomes
- Published in 1956 and revised in 2001 by Anderson and Krathwohl
- Helps educators formulate learning outcomes that address:
 - What learners should know and think (Cognitive Domain)
Example: Analyze the factors influencing sustainable development.
 - What learners should value or demonstrate in their attitudes (Affective Domain)
Example: Demonstrate commitment to ethical research practices.
 - What learners should be able to do or perform (Psychomotor Domain)
Example: Operate laboratory equipment safely and accurately.

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Photographic Archive

Home > Bloom, Benjamin

Bloom, Benjamin



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Title Bloom, Benjamin

Learning outcomes

Definition and characteristics

- “A statement of what a learner is expected to know, understand, and be able to do upon successful completion of a learning experience”

ECTS Users' Guide 2015

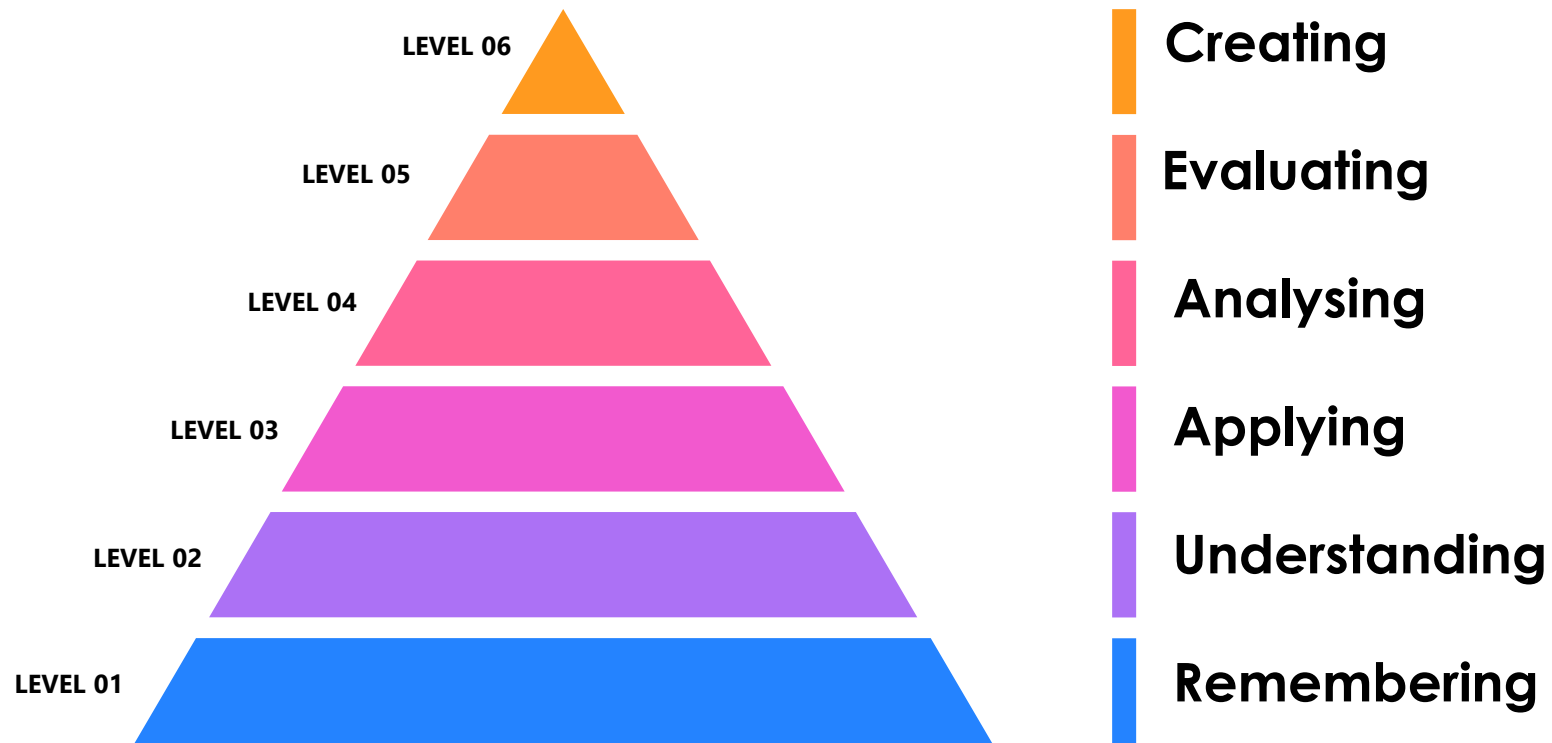
- “Learning outcomes are important for recognition.... The principal question asked of the student or the graduate will therefore no longer be “what did you do to obtain your degree?” but rather “what can you do now that you have obtained your degree?”.

Purser, Council of Europe 2002, p. 5

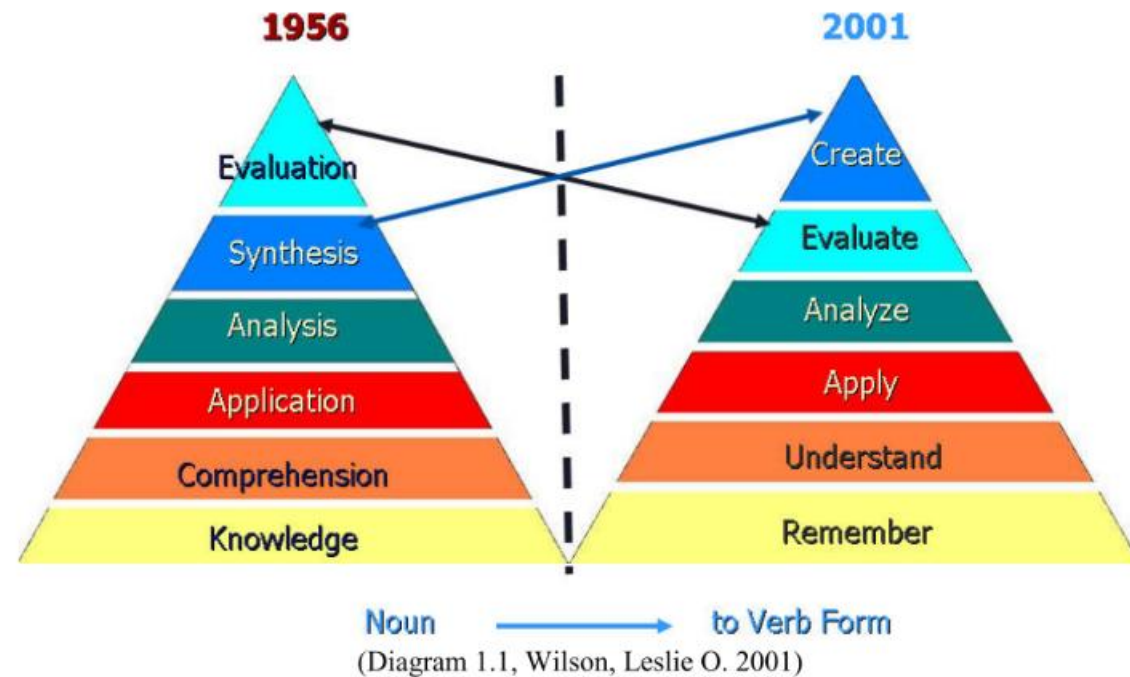


There are 6 levels (lowest to highest cognitive skills) to Bloom's Taxonomy

Bloom's Taxonomy (revised)



Bloom's taxonomy revised



Using Bloom's taxonomy

- ❑ **Verbs** are used to involve students in thinking differently at each level.

- ❑ When these verbs are used in the structure of a question regarding the content area, it **automatically involves the student thinking at that level** in which the verb word appears.

- ❑ When planning a lesson/ tutorial, the lecturer can include **a variety of activities and questions**, thus forcing the students to think and function at each level of the taxonomy.

- ❑ The aim is to have the lecturer prepare **questions and activities related to all levels of the taxonomy** directly related to the content of study
 - Example: *Students asked to “invent” something are asked to perform at the creation level of thinking. By asking a student to probe or inquire the student is requiring to think at the analysis level. These should be borne in mind when designing assessments.*

Bloom's taxonomy

Action verbs

Definition	I. Remembering	II. Understanding	III. Applying	IV. Analyzing	V. Evaluating	VI. Creating
Bloom's Definition	Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers.	Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas.	Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations.	Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.	Compile information together in a different way by combining elements in a new pattern or proposing alternative
Verbs	<ul style="list-style-type: none"> Choose Cite Define Find Label List Match Name Quote Recall Retrieve Relate Select Show State Tabulate 	<ul style="list-style-type: none"> Arrange Articulate Classify Compare Contrast Conclude Describe Demonstrate Differentiate Discuss Distinguish Explain Extend Illustrate Identify Infer Interpret Outline Paraphrase Rephrase Summarize Translate 	<ul style="list-style-type: none"> Apply Build Calculate Complete Compute Demonstrate Develop Experiment with Examine Execute Identify Make Use of Model Modify Organize Predict Plan Solve Utilize 	<ul style="list-style-type: none"> Analyze Arrange Assume Categorize Classify Compare Connect Contrast Deconstruct Differentiate Discriminate Dissect Distinguish Divide Examine Inspect Integrate Organise Relate Separate Structure Simplify 	<ul style="list-style-type: none"> Appraise Apprise Argue Assess Compare Conclude Contrast Critique Decide Deduct Defend Determine Discriminate Estimate Evaluate Explain Grade Interpret Judge Justify Measure Prioritize Prove Rate Rank Recommend Review Validate 	<ul style="list-style-type: none"> Adapt Assemble Build Change Combine Compile Compose Constitute Construct Create Design Develop Devise Elaborate Estimate Formulate Generate Hypothesize Imagine Improve Invent Make-up Modify Organise Plan Predict Propose

A few examples ...

Bloom's Level	Key verbs (keywords)	Example LO
Remember	Cite, define, list, recall, name, match, quote, recall, label, state, tabulate	By the end of this lesson, the student will be able to list key dates of important events in global history
Understand	Classify, contrast, describe, explain, interpret, discuss, paraphrase, summarize, translate	By the end of this lesson, the student will be able to contrast different leadership styles and their impact on organisation performance
Apply	Apply, demonstrate, determine calculate, illustrate, model, modify, predict, solve, plan, use	By the end of this lesson, the student will be able to apply Newton's second law to solve quantitative problems in linear motion
Analyse	Analyze, categorize, classify, compare, discriminate, distinguish, inspect, integrate, organize, simplify	By the end of this lesson, the student will be able to examine organisational structures and processes to determine how they influence efficiency, communication, and decision-making
Evaluate	Appraise, argue, conclude, critique, determine, evaluate, interpret, judge, measure, prove, rate, review, validate	By the end of this lesson, the student will be able to determine the quality of a product/service based on specific criteria
Create	Adapt, build, change, create, compose, construct, design, develop, estimate, generate, imagine, invent, plan, predict, propose	By the end of this lesson, the student will be able to compose an original piece of music that expresses a chosen mood, theme, or idea using appropriate musical elements and techniques.

Constructive alignment... in practice

Level	Action words	Teaching/Learning Methods	Teaching/learning Activities & Products to be assessed
Remember	Define, name, match, list, recall, relate, select, state	Lectures, Audios, videos, visuals	MCQs, short quizzes, terminology tests
Understand	Classify, compare, describe, explain, identify, interpret, outline, summarize	Interactive lectures, discussions, Concept mapping	Writing of summary reports, drafting of concept maps, short explanatory paragraphs, presentations
Apply	Apply, calculate, demonstrate, experiment with, examine, identify, model, organize, predict, solve	Demonstrations, practice exercises, case studies, problem-based learning, simulations	Case study reports, laboratory work
Analyse	Analyse, compare, contrast, differentiate, distinguish, examine, inspect, integrate, relate, simplify	Critical incidents, group work, debates, reflective discussions	Analytical essays, comparison reports, data interpretation tasks
Evaluate	Argue, Assess, conclude, critique, defend, evaluate, justify, measure, prove, rank, review, validate	Appraisals, critiques, case studies, debates, projects, simulations, seminars, peer review, reflective discussions	Critical essays, debates, evaluation reports, peer-review outputs, policy critiques
Create	Adapt, construct, compose, create, design, develop, formulate, innovate, predict, propose,	Creative exercises, project-based learning, studios / workshops, simulations	Research projects, dissertations, portfolios, creation of new product/prototypes, policy/design proposals

Formulating Learning outcomes

GENERAL TIPS

KEEP IT SIMPLE !

- Focus: always on the learner and what the latter is expected to know, be able to do and understand
- Arranged in bullet points
- Simple, unambiguous terms must be used for easy understanding
- One learning outcome: one sentence- avoid complex convoluted sentences
- Not too general nor too specific
- Define and write learning outcomes within the broader context, and not in isolation
- Avoid copying learning outcomes from elsewhere, but develop authentic statements reflecting the particular context
- Learning outcomes must be capable of being assessed
- Learning outcomes should remain open to the unexpected and unintended, and not fully predict or control the learning process

A few
questions..

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A few questions

1. Is the following statement correctly phrased as a LO?

At the end of the module, the student will become familiar with Newton's laws of motion

2. Is this statement correct as a LO?

At the end of the module, the learner will be able to explain ethical issues in research

3. At which level of Bloom's taxonomy is this LO?

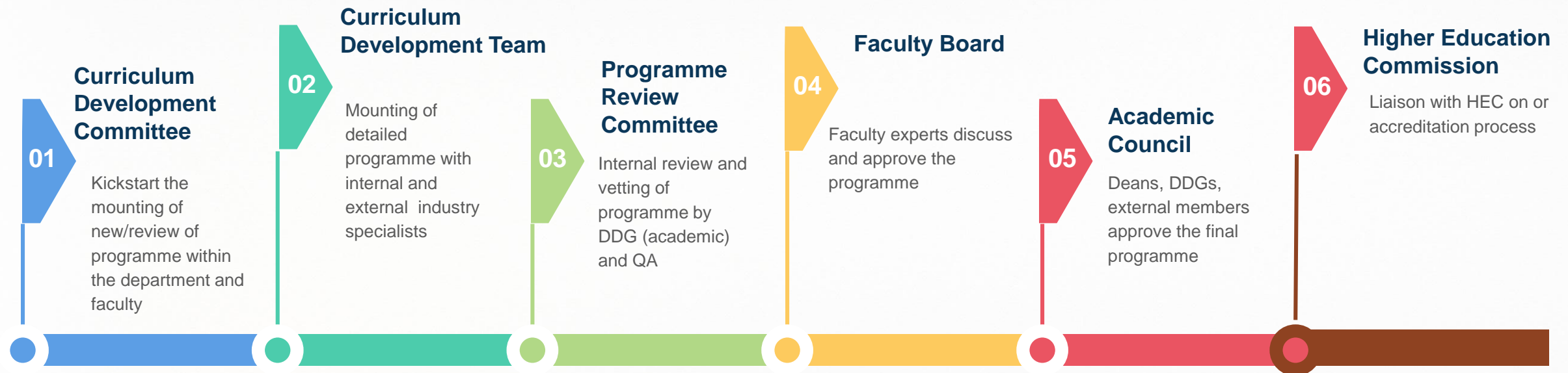
At the end of the module, the learner will be able to design a sustainable business model for a startup

Examples in practice

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Example from UdM: Multi-tier study program development



Examples from UdM:

Experiential learning : field work

BSc (Hons) Energy Systems and Sustainability students

Field work on coastal erosion in order to sharpen:

Critical Analysis Skills

- **Evaluate** how local environmental factors and human activities accelerate or mitigate coastal erosion rates.
- **Assess** the structural and ecological effectiveness of existing coastal protection measures along the shoreline.

Data Collection Capacity

- **Execute** standardized field measurements accurately, including beach profiling, and shoreline mapping.
- **Deploy** specialized coastal monitoring equipment and digital data-logging tools correctly under variable field conditions.



Picture: Group of students collecting beach profile information the concept of erosion

Example from UdM:

Social and Environmental Responsibility module – project-based

Compulsory for undergraduates

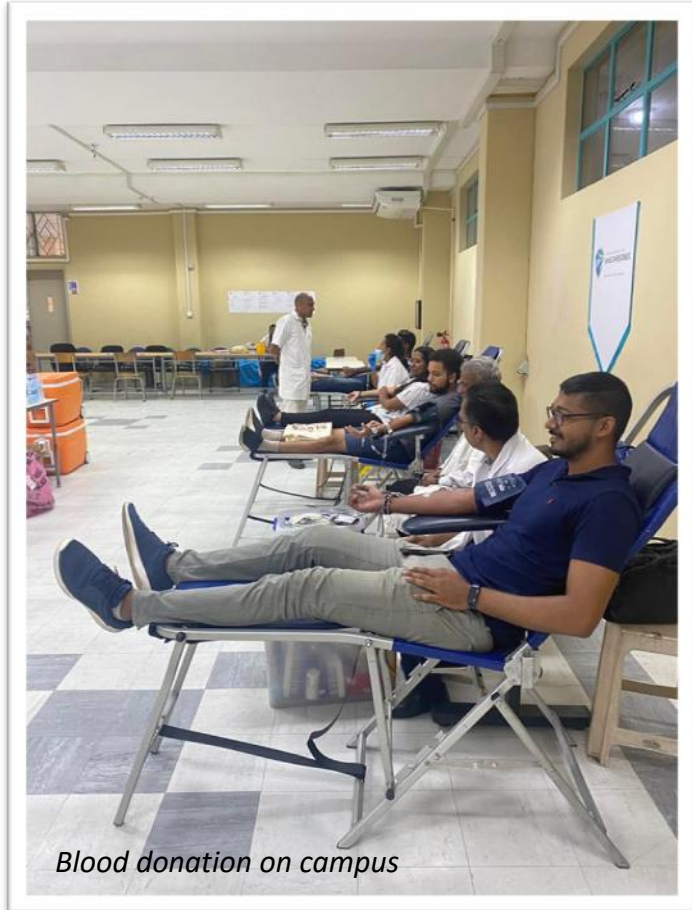
Three tier delivery

Year 1 Objective: To allow students to gain insight into the sources, concepts, theories and essential components of social responsibility

Year 2 Objective: To translate their theoretical knowledge on the aspects of social responsibility into a group project

Year 3 Objective: To allow students to assist their peers in achieving significant contribution in social responsibility issues

A few examples...



A few examples...



Beach cleanup



Collection of metal cans for recycling

A few examples...



Lunch offer to underprivileged children

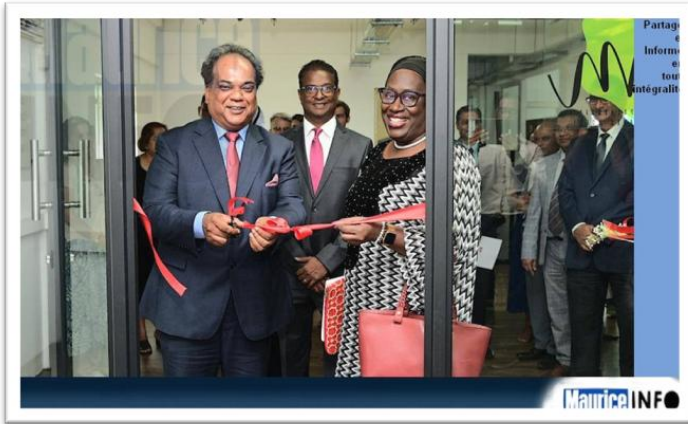


Community engagement with special needs people

Entrepreneurship training..

- Under the UdM banner of the Pôle Étudiant Entrepreneur Mascareignes (PEEM)
 - Promote entrepreneurial culture among students.
 - Guide and support students in developing viable business ideas.
 - Offer mentorship and networking opportunities with different stakeholders
 - Recognize students formally via the Statut National Étudiant Entrepreneur (SNEE).
 - Encourage the creation of sustainable businesses contributing to socio-economic development.
- Awareness campaigns
 - Training of stakeholders
 - Consultative workshops
 - Bootcamps
 - Pitches
 - Communication workshops
 - Interpersonal communication and conflict management workshops
 - Personal development workshops and entrepreneurial skills workshop
 - Leadership and team management workshops
 - Marketing and sales strategy workshops
 - Business creation workshops
 - Managing finances workshop etc...

A few examples...



Group Presentation by PEEM students



PEEM Workspace and its inauguration

A few examples...



Induction Team building



Project Presentation

Reflections..

“

Based on your own experience, what do you consider the most significant challenges in curriculum development, and what practical steps have you taken to overcome them?

Questions and comments?

THANK YOU! MERCI! DANKE! OBRIGADA! ASANTE! MERSI!



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