

Outcome-based Teaching and Learning

EDuIT





Contents

- What are intended learning outcomes?
- Action verbs
- Writing learning outcomes



Intended Learning Outcomes

- Statements that specify what learners will know or do as a result of learning activities
- Outcomes can be knowledge, skills, or attitudes
- The outcomes should be assessable
- E.g. X Understand the art history



Aims, Objectives, and Outcomes

- Aims: broad intentions from the perspective of the academic staff
 - E.g. "to introduce students to the basic principles of nutrition"
- Objectives: specific statement of teaching intention
 - E.g. "to understand the impacts and effects of lifestyles on health"
- Written in terms of teaching intention



Aims, Objectives, and Outcomes

- Outcomes: what students should be able to achieve at the end of a course
- E.g. Students will be able to:
 - Assess the nutrition level of a patient
 - Explain the core theories of nutrients

Hierarchy of Cognitive Domain

6. Evaluation

5. Synthesis

4. Analysis

3. Application

2. Comprehension

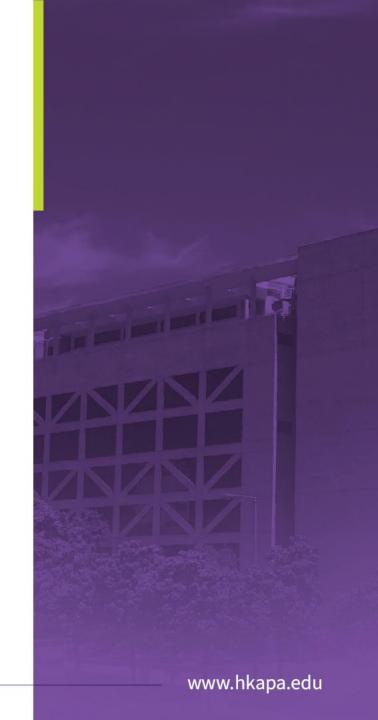
1. Knowledge

Bloom's taxonomy of learning domain

Qualification Framework in Hong Kong

QF Level 1	Perform a limited range of tasks of a routine and repetitive nature in defined and
	highly structured contexts

- QF Level 2 Perform a range of tasks in predictable and structured contexts
- QF Level 3 Perform a broad range of tasks in a variety of familiar and some unfamiliar contexts using a known range of technical skills
- QF Level 4 Perform skilled tasks requiring some discretion and creativity in a range of contexts
- QF Level 5 Apply knowledge and skills in a range of technical, professional or management activities
- QF Level 6 Apply knowledge and skills in a broad range of specialised technical, professional or management activities
- QF Level 7 Apply knowledge and skills in a broad range of complex activities in highly specialised technical, professional or management contexts





Action verbs

- x Students will *understand* the idea of stage design
- χStudents will *know* more about make-up

Too vague! Do not specify what students have to achieve!



Action verbs - Knowledge

- Arrange, collect, define, describe, duplicate, enumerate, examine, find, identify, label, list, name, outline, present, show, etc
- Examples:
 - Identify ethical implications of scientific investigations
 - List the possible effects of smoking
 - Describe the processes used in engineering when preparing a design brief for a client



Action verbs - Comprehension

- Clarify, construct, contrast, describe, discuss, distinguish, estimate, explain, identify, illustrate, generalise, etc
- Examples:
 - Differentiate between civil and criminal law
 - Explain the social, economic and political effects of World War I



Action verbs - Application

- Apply, assess, construct, demonstrate, examine, find, illustrate, prepare, produce, show, etc
- Examples:
 - Construct a timeline of significant events in the history of China
 - Apply knowledge of infection control in the hospital
 - *Show* how changes in the criminal law affected the Scottish society in the 19th century

Action verbs - Analysis

- Analyse, arrange, break down, calculate, categorise, classify, compare, contrast, criticise, determine, differentiate, distinguish, examine, identify, outline, investigate, etc
- Examples:
 - Compare and contrast the different electronic business models
 - Analyse why society criminalises certain behaviors
 - Calculate gradient from maps in m, km, and ratio



Action verbs - Synthesis

- Argue, arrange, collect, combine, construct, create, develop, explain, formulate, generate, integrate, make, prepare, propose, summarise, etc
- Examples:
 - Propose solutions to complex energy management problems
 - Summerise the causes and effects of the 1917 Russian revolutions
 - Organise a patient education programme



Action verbs - Evaluation

 Argue, assess, conclude, criticise, decide, defend, explain, evaluate, interpret, judge, justify, predict, etc

Examples:

- Evaluate marketing strategies for different electronic business models
- Assess the key areas contributing to the craft knowledge of experienced teachers

A brief summary

- Knowledge (recalling important information)
 - E.g. define, describe, list, outline, state
- Comprehension (explaining important information)
 - E.g. discuss, explain, identify, illustrate, elaborate
- Application (using theories and principles in particular concrete situations)
 - E.g. apply, construct, demonstrate, operate, use
- Analysis (e.g. identifying relationships, distinguishing cause and effect)
 - E.g. analyse, classify, compare, differentiate, select



Learning Outcomes in Affective Domain

- Examples:
 - Participate in class discussions with colleagues and with teachers
 - Embrace a responsibility for the group project
 - Display a professional commitment to the research group



Writing course outcomes

- No fixed number
- Advisable to have a limited number, say 6-7:
- E.g. Upon the completion of this course, students will be able to:
 - Explain the theoretical concept of Universal Design
 - *Illustrate* the legislative requirements for Universal Design
 - List out the business and social benefits of Universal Design
 - Appreciate the benefit of consulting with end users

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Outcome	Topic
Outcome 1	Topic 1
Outcome 2	Topics 2 and 3
Outcome 3	Topics 2 and 4
Outcome 4	Topic 5
Outcome 5	Topic 6
Outcome 6	Topics 7 and 8
Outcome 7	Topic 9

Assessments

Learning outcomes	Teaching and Learning Activities	Assessment
Demonstrate Knowledge	Lectures	Short-Answer Questions
Comprehension	Tutorials	Multiple Choice Tests
Application	Discussions	Essays
Analysis	Laboratory Work /	Practical Assessment
Synthesis	Workshops Seminar	Fieldwork
Evaluation	Peer Group Presentation	Presentation
		Project Work
		Reports
		Reflective Diaries/Portfolios

