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Assessment and Evaluation:

Constructive Alignment

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By the end of this session you will

- Be able to differentiate between surface and deep learning;
- Be exposed to the principles of constructive alignment in curriculum design;
- Identify ways to align learning objectives, learning activities and assessment; and
- Be ready to integrate constructive alignment into your own course

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Surface learning

- "Get by" rather than "fly"
- Write exams merely to pass
- "Pad" essays to meet word or page count
- Using bulleted or numbered lists rather than narrative form writing
- Using soft language to avoid making claims that need citations
- Academic dishonest: plagiarism, cheating

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Surface learning is encouraged by

- Content consumption isolated from value or meaning
- Voluminous rote memorization
- Materials that are not contemporary
- Lack of instructor passion for subject or tasks
- Lack of instructor engagement with students

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Deep learning

- A need to *understand* rather than a mere need to *possess* knowledge
- Situated in real life (professional; personal)
- Integrates knowledge in complex ways
- Makes learners responsible for own learning
- Encourages learners to respectfully and thoughtfully challenge, question, & critique
- Requires teachers to create space for such exchanges (often in place of lectures)
- Inspires teacher and learner to participate actively

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Constructive alignment between

1. Learning objectives
2. Learning activities
3. Assessment procedures
4. Learning environment (class/online/hybrid)
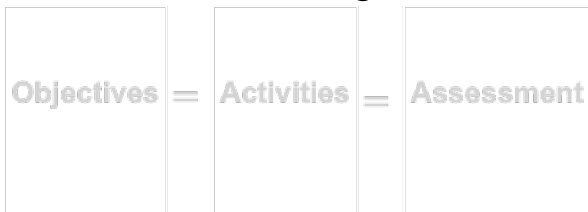5. Institutional environment (department/ university)

In terms of instructional design 1–4 are our focus.

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Constructive alignment

| Objectives | = | Activities | = | Assessment |

Learning Environment

Institutional Environment

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Learning environment

- Encourages interactivity
- Is structured to a degree that is purposeful
- Materials & resources available
- Relationship centered

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How to align a curriculum

- Every learning objective is connected (mapped) to at least one learning activity and assessed at least once

- No gaps

- Linear connections

- Complex connections

Different types of objectives

- **Cognitive** (knowledge; ideas, critical reasoning)
- **Affective** (attitudes, beliefs, values)
- **Psychomotor** (skills, techniques, procedures)

- Not every objective need be linked to an activity
- Some—often the higher order ones—are embedded throughout the curriculum

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Types of instructional strategies

- Transmission (lectures, notes, readings)
- Exercises/practice (repetition)
- Labs
- Problem solving
- Project-based
- Active learning: PBL, IBL
- Research papers (integrative)

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Assessment

- **Formative**: interim, in process, or iterative

    Embraces learning as a process and engages instructors with learners throughout

- **Summative:** final "for marks"

    Ultimately, did the learner attain the objective(s)? To what extent and how well?

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Two assessment paradigms

- **Norms-referenced**
  - Assessed in relation to one learner's performance to another's
  - Testing the most common form
- **Criteria referenced**
  - Assessed based on fulfilling specific criteria
  - Different levels of performance with incremental criteria
  - Projects, problems, cases

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Discussion

- Which is better? Norms or criteria-based assessment?
- Which is better, formative or summative assessment?
- How readily might you implement constructive alignment in your teaching?

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Moving forward

For further reading:

Biggs, J. (1999): *Teaching for Quality Learning at University*. Buckingham : SRHE & Open University Press.

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