

Hands-on Design of Effective Tertiary Learning Environments

Rob Phillips, Academic Consultant

Educational Design Project, School of Education, Curtin University,
Perth

Adjunct Associate Professor, School of Education, Murdoch University,
Perth

Purpose

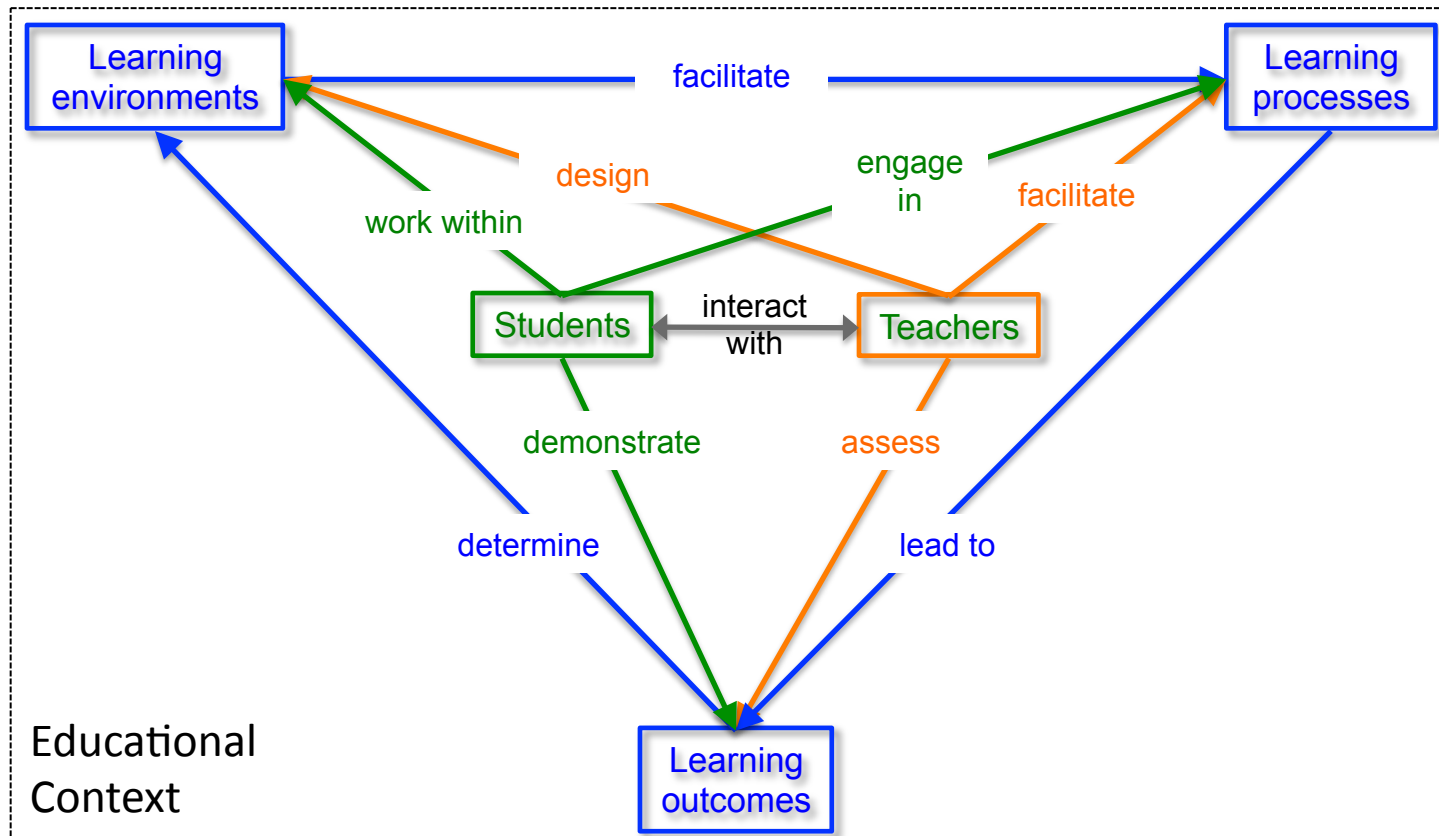
- For you to work hands-on to start to redesign your own course to make it more appropriate for UniSIM students

Task

- Ice-breakers
 - Get to know the people on your table

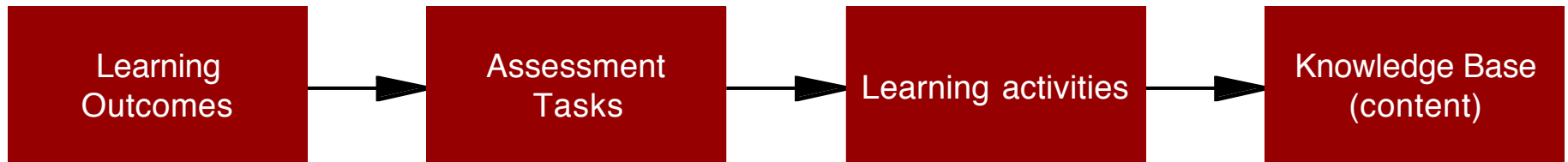
The LEPO Framework

- Learning Environment, Process, Outcomes



Learning Design

- Learning tasks are what teachers *set*
- Learning activities are what students *do*
- Constructive alignment



Workshop Outline

- Analyse a current course in terms of outcomes, assessment and learning tasks
- Progressively refine the design during the workshop
- Outcome:
 - Better understanding of effective learning environments
 - An initial plan to refine a course

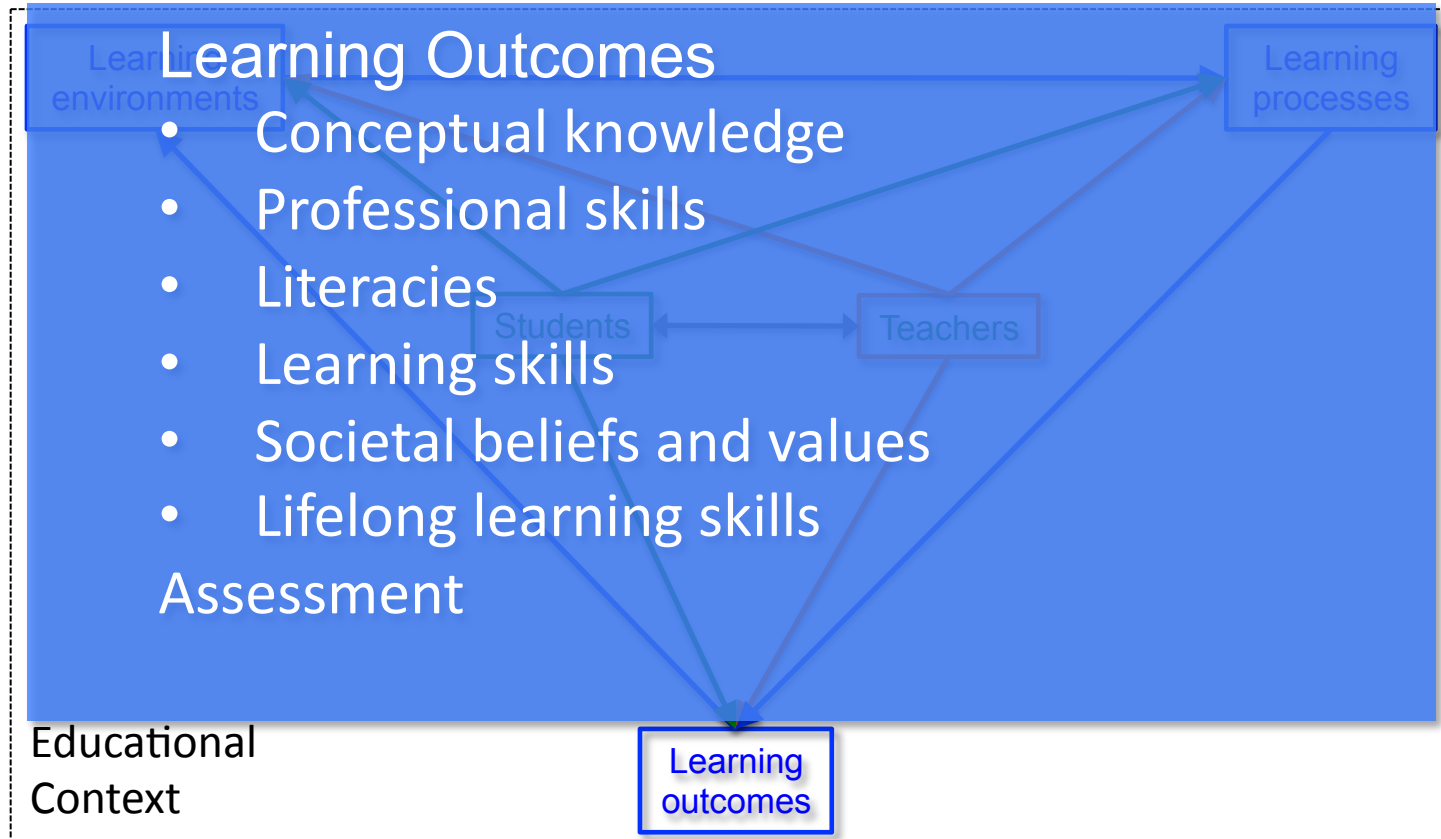
Task

- In pairs or 3s
 - Choose a course
 - Fill in current Objectives, Assessments and Tasks

What are Learning Tasks?

- Activities that students do to practice and consolidate their understanding
- E.g.
 - Read chapter 3...
 - Write a reflective journal entry
 - Work with your group to refine your project plan

Learning Outcomes



Learning Domains

- Cognitive Domain
- Psychomotor Domain
 - physical skills
- Affective Domain
 - emotions
- Conative Domain
 - capacity to act, decide, and commit
 - motivation

Bloom's Taxonomies

		The cognitive reasoning dimension					
		Remember	Understand	Apply	Analyse	Evaluate	Create
The knowledge dimension	Factual knowledge						
	Conceptual knowledge						
	Procedural knowledge						
	Meta-cognitive knowledge						

Aims, Objectives and Outcomes

- Aim - what the teacher is going to do (archery competition)
- Objective - what the student should be able to do (the target)
- Outcome - what the student can do (shooting the arrow)

Learning Outcomes

Three types of learning outcomes (Allan, 1996)

- Subject-based outcomes
 - subsume learning objectives
 - complex, discipline-based outcomes - capable of being assessed;
- Personal transferable outcomes
 - acting independently
 - working with others
 - using information technology
 - communicating effectively
 - metacognitive and self-efficacy skills
- Generic academic outcomes
 - making use of information
 - thinking creatively and critically
 - analysing and synthesising ideas and information
- Graduate Attributes or 21st Century Skills
- UniSIM students might already have some of these
 - or they might not....

Task

- In pairs or 3s
- Review learning outcomes and assessment
- Are they deep enough?

Adult Learning Principles

- The subject matter is relevant to the personal interests of the adult learner
- Capitalise on the wealth of experience of participants
- Adult learners must understand the rationale and purpose of their learning
- Need to be involved in the planning and evaluation of their learning
- Experience (including mistakes) can provide the basis for learning activities
- Interested in learning material that has immediate application
- Problem-centric rather than content-specific

Merrill's Learning Levels

level 0 - Be instructed

level 1 - Observe a demonstration

level 2 - Practice the skill

level 3 - Do a task

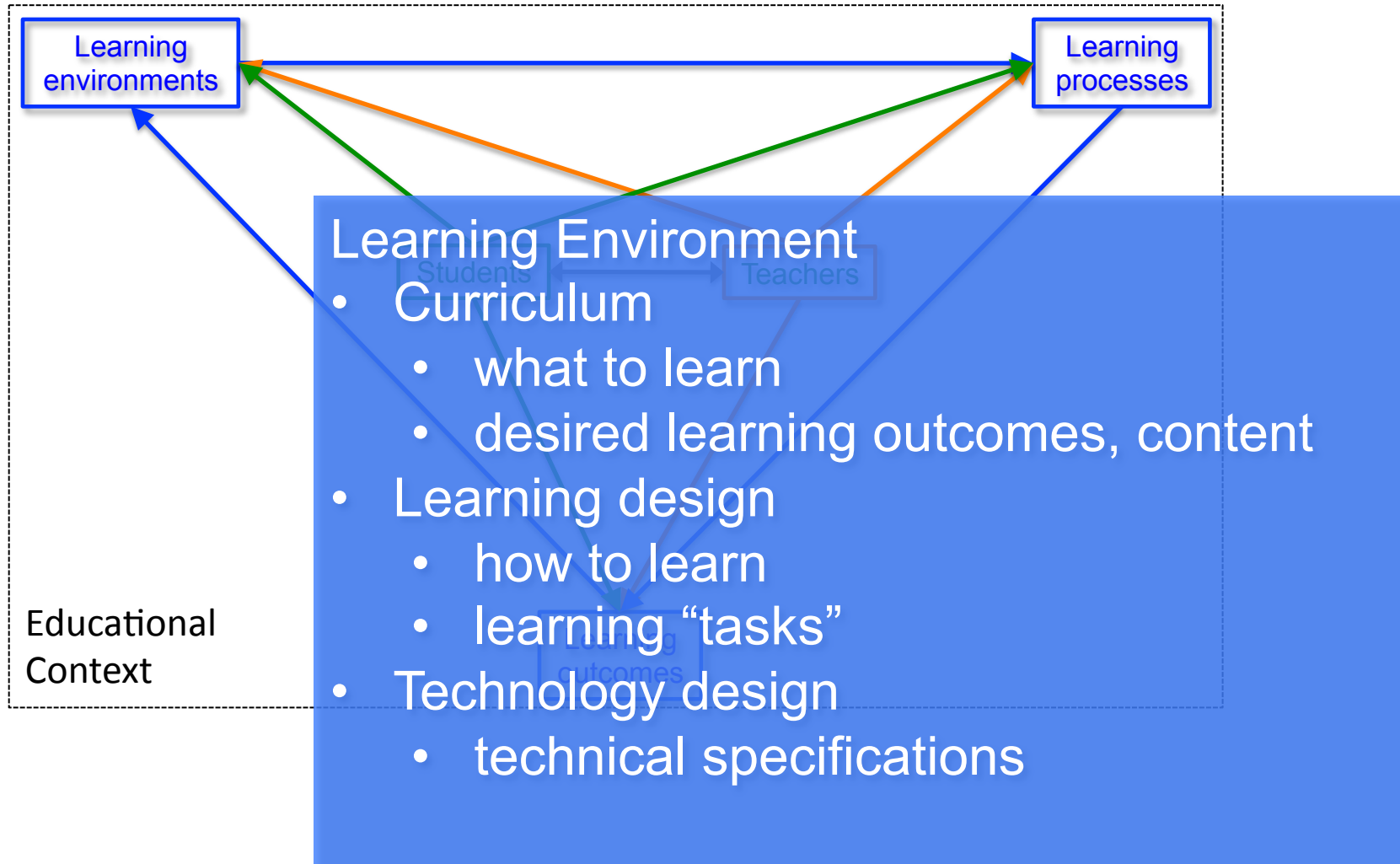
level 4 - Apply knowledge and skills

level 5 - Demonstrate knowledge and skills

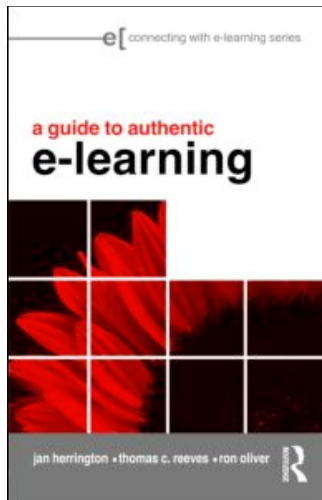
Task

- Do the Learning Outcomes, Assessments and Tasks match the profile of UniSIM students?
- Plenary discussion

Learning Environment



Authentic Learning



(Herrington,
Reeves &
Oliver, 2010)

- Authentic context
- Authentic activity
- Expert performances
- Multiple perspectives
- Collaboration
- Reflection
- Articulation
- Coaching and scaffolding
- Authentic assessment

Threshold Concepts

- Experts versus novices
- Chris Creagh video
- http://www.youtube.com/watch?v=T0gVC_fg8bY

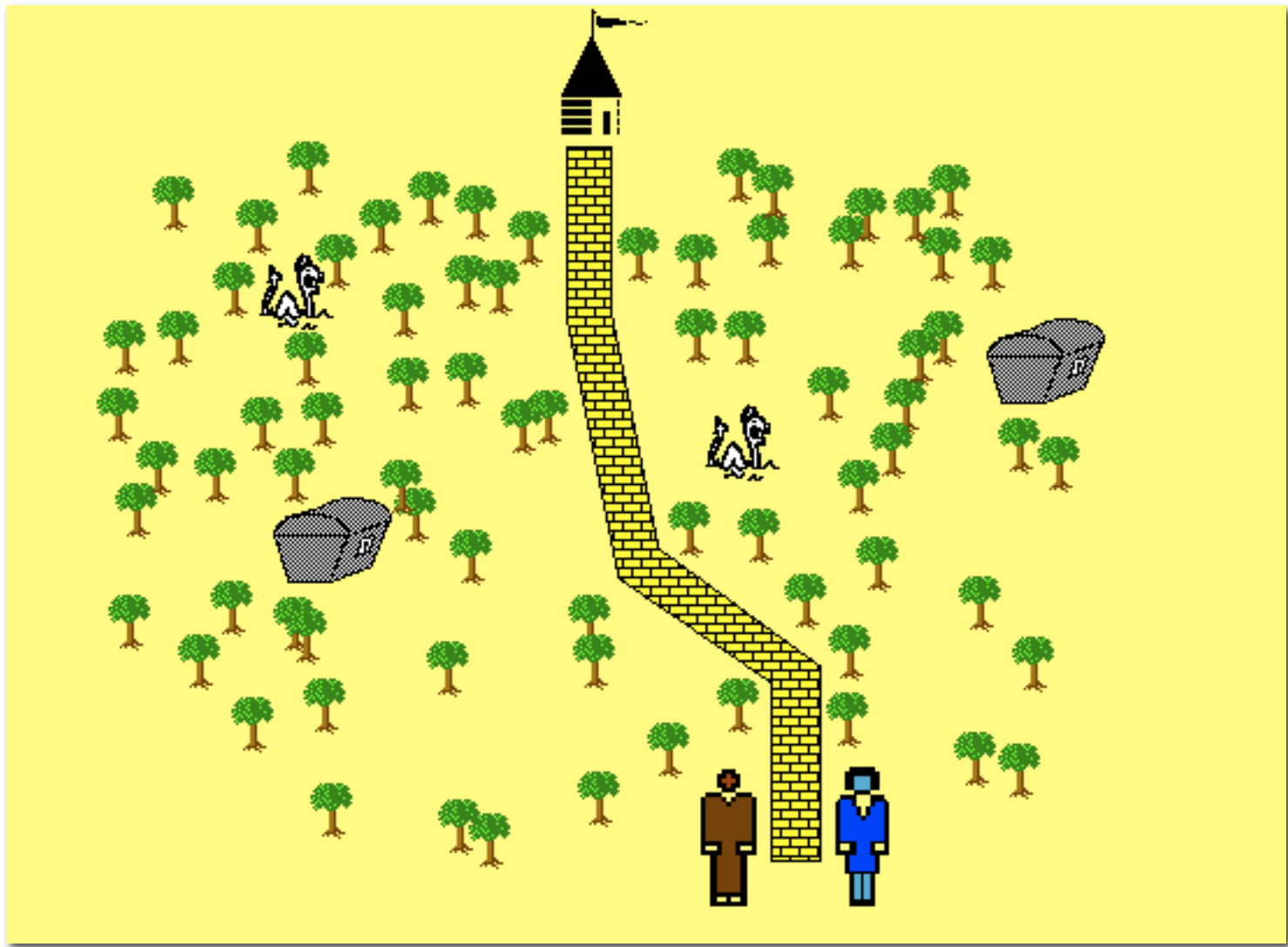
How to Teach the Topic

- What (authentic) tasks can you develop to engage students?
- What classroom activities can you design to improve understanding?

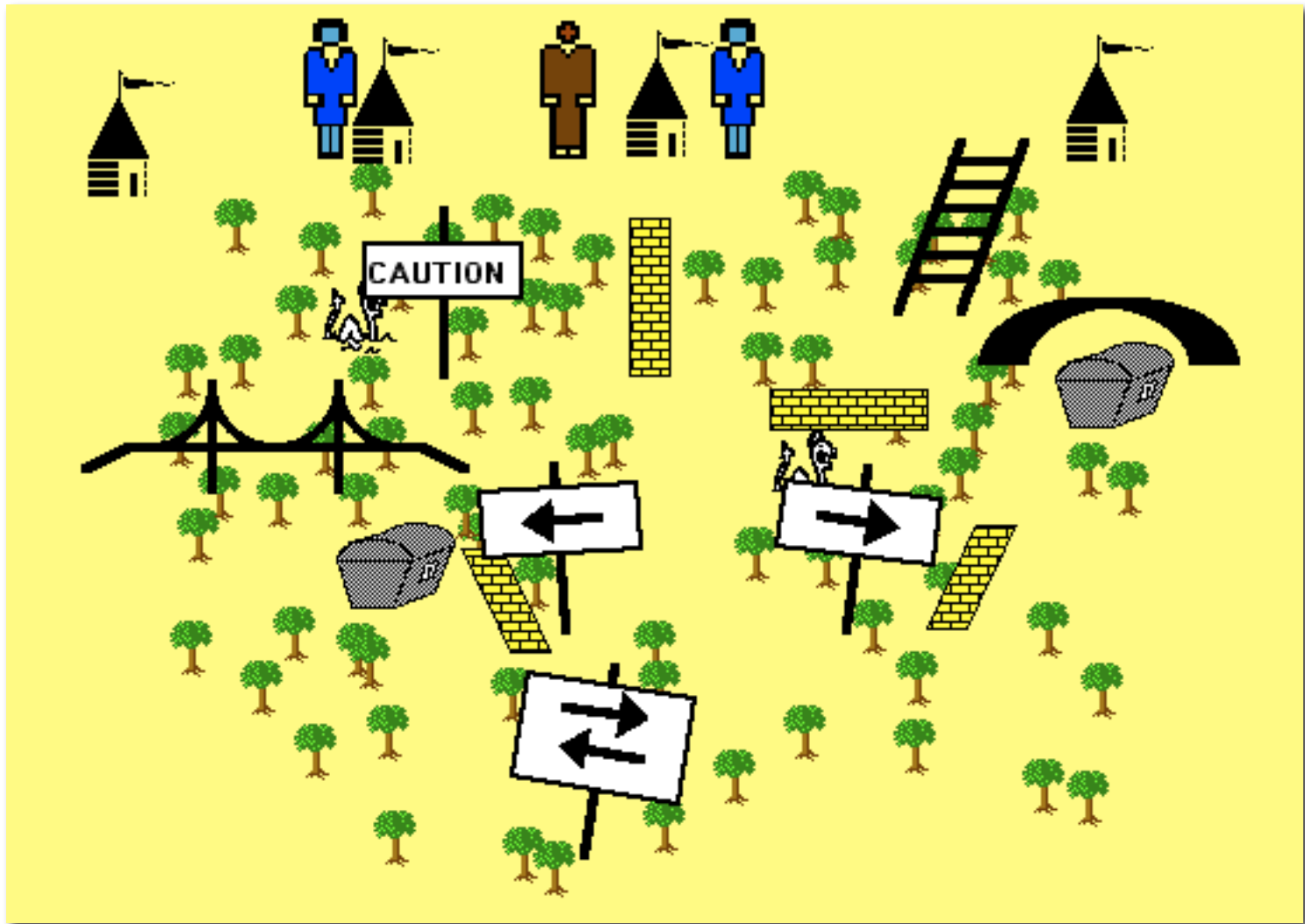
Task

- Go to Column 2
- Review Learning Outcomes and Assessment
- Identify authentic tasks
- Identify troublesome concepts
- Propose solutions

The Yellow Brick Road Approach



Guided Discovery Learning



Adult Learning Principles

- The subject matter is relevant to the personal interests of the adult learner
- Capitalise on the wealth of experience of participants
- Adult learners must understand the rationale and purpose of their learning
- Need to be involved in the planning and evaluation of their learning
- Experience (including mistakes) can provide the basis for learning activities
- Interested in learning material that has immediate application
- Problem-centric rather than content-specific

Flipped Classroom

- Content is everywhere
- No need to spend class time in delivering content
- Engage with content before class
- Class time is spent in discussion, practising...

Apply MOOC Approaches

- Online module design
 - Topic synopsis
 - Key concepts vodcast
 - Learning task
 - Provide scaffolding of the skills needed to do the task
 - Vodcast explaining how to do task
 - Model a 'good' answer
 - Learning task...
 - Key concepts vodcast...

latW

