

Mapping Your Course for Outcomes Based Education

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Session 2: November 14, 2007

*Educational
Development
Centre*



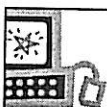
Welcome ! 歡迎 !

While we are waiting.... Have a seat
and introduce yourself to people at
your table

Discuss the 'homework' question: How might
the mapping process help/not help you to
achieve an outcomes based approach?
Comments on WIDS as a tool? Use of
templates?

What questions do you want to make sure we
address in today's session?





Today's session:

- Consider the program development process
- Consider the role of feedback in program development process
- Consider the 'levels' of curriculum documents
- Discuss 'tools' for mapping
- Apply steps in mapping to your course

**Program Development: An Example from Sheridan Institute
of Technology and Advanced Learning , Canada**
The Development Team

CCFD

Project Lead
Researcher(s)
Curriculum
Designers
Production
Support



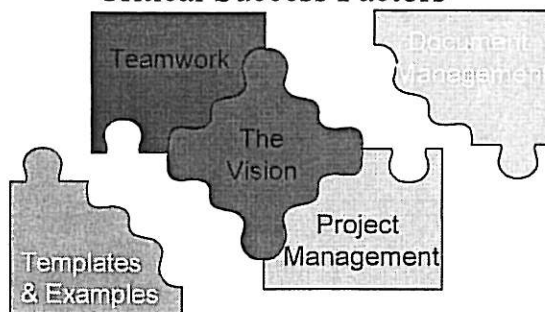
School/Dept

School Project
Lead
Subject Matter
Experts

Industry

Program Advisory
Committee

Critical Success Factors



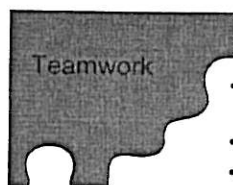
**Creating Exceptional Student
Experiences....**



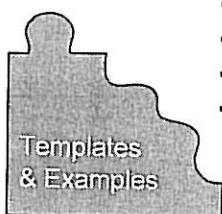
- Fit with the strategic direction
- Economic need
- Target students
- Uniqueness

- Project Plan
- Resources
- Accountability
- Authority





- Schools working with CCFD
- Shared vision
- Clear roles and responsibilities
- SWFing
- Excitement



- Efficiency
- Consistency
- Repetition
- Learning from others

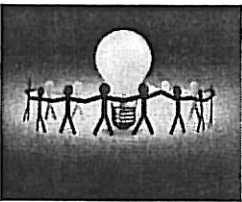
- Sharing of material
- Safe storage
- Minimize administrative nightmare

Document Management


Feedback/Approval Process for Program Development

- Internal
 - Support from CCFD (similar to EDC) in planning/writing outcomes and curriculum documents
 - Department level review and revision
 - Submission to internal approving bodies (Academic Council)
- External
 - Submitted to the Board of Governors
 - Submitted to Government Approval Bodies (like UGC) and External Accrediting Agencies (Professional Organizations)

Program Development Process



Think/Pair/Share

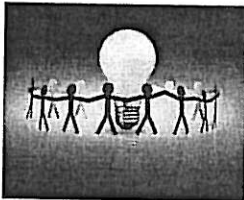


Do you have any questions regarding the process of program development?

Curriculum 'Packages' (see handout)

Basic	Intermediate	Full
Course Outline	Course Outline PLUS	Course Outline PLUS
	Assessment Tools and Appropriate Evaluation Criteria/Rubrics	Assessment Tools and Appropriate Evaluation Criteria/Rubrics PLUS
		Modules by topic to include lesson plans, content resources (such as pp's, pdf, lecture notes), developed instructional strategies, etc.

Curriculum Packages/Course Outlines/Syllabus



In groups



- Review your course outline
- Review basic requirements in the handout and the 'curriculum documents' handout
- Discuss how you use your course outline. Are there elements missing? What might you add/change?

Writing LO's - Tips: A Learning Outcome Statement ...

- Begins with a verb
- States something that is observable
- States something that is measurable (directs the evaluation strategy)
- Integrates knowledge, skills and attitudes

Example for your course / program

- Program Level
 - By the end of the program, the graduate of will have demonstrated the ability to
- Course Level
 - By the end of the course, the student will have demonstrated the ability to

Examples of Learning Outcomes

(From Ontario College Graduate Certificate in Manufacturing Management)

- Program Level
 - Communicate business-related information persuasively and accurately in oral, written and graphical formats.
- Course Level
 - Create a clear, focused, visual message using presentation software that supports an oral presentation.

Nursing Practice 4

Course level expectation: Critical Performance:

- Successful students will have demonstrated the ability to transfer and apply theoretical content and nursing lab skills to the clinical setting safely, accurately and correctly.

Nursing Practice 4

Sample Learning Outcomes:

- apply the nursing process when providing care
- apply accepted guidelines when practicing the principles of effective and legal documentation
- apply in practice previously learned skills correctly
- assist with bedside procedures
- monitor and measure drainage devices

cont.....

Nursing Practice 4

Learning Outcomes (cont):

- recognize and explain the use of traction, cast care and immobilization devices
- demonstrate proper irrigation of eyes and ears
- demonstrate respectful care for the body after death
- show respect for self and classmates in the laboratory setting
- show respect for self, classmates, clients and staff in the clinical setting
- show caring qualities towards clients in the community and clinical settings
- be responsible as demonstrated by attendance, punctuality and completion of assignments on time

Program Development

Curriculum Planning Requires:

- Consideration of Stakeholder Needs
- Consideration of Government or Accreditation Requirements
- Consideration of Program LO's
- Consideration of Selection of Appropriate 'courses' of study within the program
- Consideration of the 'fit' of CLO's with PLO's
- Consideration of the Learning Activities within each course

Learning Mapping

Provides a framework for mapping out a complete course, unit of study or single instructional challenge, with recommended instructional strategies, task exemplars & templates

Can be paper based (with templates) and/or
With 'web-based tools' with online templates

What drives learning? (How do students learn)

- time on task
- student/instructor interaction
- timely feedback
- active with content
- interaction with peers (teams)
- rewards/motivation

"I don't lecture, I create an environment for them to learn"
Albert Einstein

Relationship of learning tasks to content

Tasks
are open questions
which students
respond by engaging
with the content.



Content
is a resource to help the
student to resolve the task.

Learning time

Class time

x hour
Instructor directed
but encouraging
active engagement

Learner time

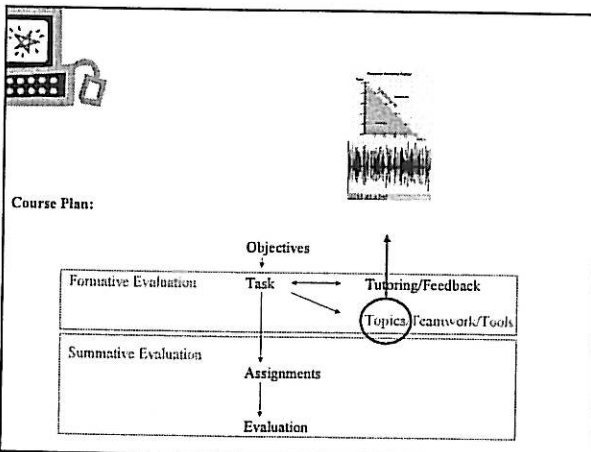
x+y hours (online or
off)
Engaging in **tasks**
related to course
content: e.g.

- Prep for class tasks
- Team tasks
- Assignments
- Online quizzes
- Online discussion
- Reflective blogs
- Others

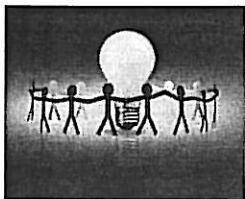
Might use
technology
to enrich out-of-
class activities

Active Instructional Strategies for: (in class and out of class)

- Exchange Based learning
- Observation Based Learning
- Simulation Based Learning
- Practice Based Learning
- Problem or Case Based Learning



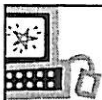
Learning Mapping Applied



In groups

- Review your course outline
- Apply Learning mapping process (using paper template for one unit of study)
- Consider when to incorporate lectures/tasks/technology
- Share ideas with full group





Feedback

Next Steps

LEARNING OUTCOMES

So you Need to Write Learning Outcomes?

Learning outcomes are:

- Behaviourally based
- Observable
- Measurable
- An integration of skills, knowledge and attitudes
- Written for both the program, course and module level
- The direction for the evaluation strategy

How Many Learning Outcomes in a Course?

- Need enough to clearly reflect what the students will gain from the course
- Usually can be accomplished with 5-12 per course

How do I Choose Appropriate Verbs for the Level of Learning? (Bloom's Taxonomy)

Cognitive Domain
(thinking, knowledge)

					Synthesis	Evaluation
Knowledge	Comprehensio	Application	Analysis			
Definition: Remembers previously learned material. Sample Verbs: •Define •Describe •Identify •Label •List •Match •Name •Outline •Recall •Recognize •Reproduce •Select •State	Definition: Grasps the meaning of material Sample Verbs: •Comprehend •Condense •Convert •Defend •Describe •Discuss •Distinguish •Estimate •Explain •Extend •Generalize •Give examples •Infer •Interpret •Locate	Definition: Uses learning in new and concrete situations Sample Verbs: •Apply •Carry out •Change •Compute •Construct •Demonstrate •Discover •Manipulate •Modify •Operate •Predict •Prepare •Produce •Relate •Show •Solve	Definition: Understands both the content and structure of material. Sample Verbs: •Analyze •Break down •Categorize •Compare •Contrast •Diagram •Differentiate •Discriminate •Distinguish •Identify •Illustrate •Infer •Outline •Relate •Select •Separate •Subdivide	Definition: Formulates new structures from existing knowledge and skills. Sample Verbs: •Categorize •Combine •Compile •Compose •Construct •Create •Devise •Design •Develop •Explain •Generate •Group •Integrate •Modify •Organize •Plan •Propose •Rearrange •Reconstruct	Definition: Judges the value of material for a given purpose. Sample Verbs: •Appraise •Assess •Compare •Conclude •Contrast •Critique •Defend •Describe •Discriminate •Determine •Evaluate •Explain •Grade •Interpret •Justify •Relate •Select •Summarize •Support <i>Example: Critique</i>	

Bloom's Taxonomy "Revised"

Key Words, Model Questions, & Instructional Strategies

Bloom's Taxonomy (1956) has stood the test of time. Recently Anderson & Krathwohl (2001) have proposed some minor changes to include the renaming and reordering of the taxonomy. This reference reflects those recommended changes and is a useful resource when writing learning outcomes.)

I. REMEMBER (KNOWLEDGE)

(shallow processing: drawing out factual answers, testing recall and recognition)

Verbs for Objectives	Model Questions	Instructional Strategies
choose	Who?	Highlighting
describe	Where?	Rehearsal
define	Which One?	Memorizing
identify	What?	Mnemonics
label	How?	
list	What is the best one?	
locate	Why?	
match	How much?	
memorize	When?	
name	What does It mean?	
omit		
recite		
recognize		
select		
state		

II. UNDERSTAND (COMPREHENSION) (translating, interpreting and extrapolating)

Verbs for Objectives	Model Questions	Instructional Strategies
classify	State in your own words.	Key examples
defend	Which are facts?	Emphasize connections
demonstrate	What does this mean?	Elaborate concepts
distinguish	Is this the same as. . .?	Summarize
explain	Give an example.	Paraphrase
express	Select the best definition.	STUDENTS explain
extend	Condense this paragraph.	STUDENTS state the rule
give example	What would happen if . . . ?	"Why does this example. . . ?"
illustrate	State in one word . . .	create visual representations
indicate	Explain what is happening.	(concept maps, outlines, flow
interrelate	What part doesn't fit?	charts organizers, analogies,
interpret	Explain what is meant.	pro/con grids) PRO CON
infer	What expectations are there?	<i>NOTE: The faculty member can</i>
judge	Read the graph (table).	<i>show them, but <u>they</u> have to do it.</i>
match	What are they saying?	Metaphors, rubrics, heuristics
paraphrase	This represents. . .	
represent	What seems to be . . . ?	
restate	Is it valid that . . . ?	
rewrite	What seems likely?	
select	Show in a graph, table.	
show	Which statements support . . . ?	
summarize	What restrictions would you add?	
tell		
translate		

III. APPLY

(Knowing when to apply; why to apply; and recognizing patterns of transfer to situations that are new, unfamiliar or have a new slant for students)

Verbs for Objectives

apply
choose
dramatize
explain
generalize
judge
organize
paint
prepare
produce
select
show
sketch
solve
use

Model Questions

Predict what would happen if
Choose the best statements that
apply
Judge the effects
What would result
Tell what would happen
Tell how, when, where, why
Tell how much change there
would be
Identify the results of

Instructional Strategies

Modeling
Cognitive apprenticeships
"Mindful" practice – NOT just a
"routine" practice
Part and whole sequencing
Authentic situations
"Coached" practice
Case studies
Simulations
Algorithms

IV. ANALYZE (breaking down into parts, forms)

Verbs for Objectives

analyze
categorize
classify
compare
differentiate
distinguish
identify
infer
point out
select
subdivide
survey

Model Questions

What is the function of . . . ?
What's fact? Opinion?
What assumptions. . . ?
What statement is relevant?
What motive is there?
Related to, extraneous to, not
applicable.
What conclusions?
What does the author believe?
What does the author assume?
Make a distinction.
State the point of view of . . .
What is the premise?
State the point of view of . . .
What ideas apply?
What ideas justify the conclusion?
What's the relationship between?
The least essential statements are
What's the main idea? Theme?
What inconsistencies, fallacies?
What literary form is used?
What persuasive technique?
Implicit in the statement is . . .

Instructional Strategies

Models of thinking
Challenging assumptions
Retrospective analysis
Reflection through journaling
Debates
Discussions and other
collaborating learning activities
Decision-making situations

V. EVALUATE (according to some set of criteria, and state why)

Verbs for Objectives	Model Questions	Instructional Strategies
appraise judge criticize defend compare	What fallacies, consistencies, inconsistencies appear? Which is more important, moral, better, logical, valid, appropriate? Find the errors.	Challenging assumptions Journaling Debates Discussions and other collaborating learning activities Decision-making situations

VI. CREATE (SYNTHESIS)

(combining elements into a pattern not clearly there before)

Verbs for Objectives	Model Questions	Instructional Strategies
choose combine compose construct create design develop do formulate hypothesize invent make make up originate organize plan produce role play tell	How would you test. . . ? Propose an alternative. Solve the following. How else would you . . . ? State a rule.	Modeling Challenging assumptions Reflection through journaling Debates Discussions and other collaborating learning activities Design Decision-making situations

References:

Anderson, L. W. & Krathwohl, D. R. (2001). *A Taxonomy for learning, teaching, and assessing*.

Bloom, B. S. (Ed.). (1956). *Taxonomy of educational objectives: The classification of ed*

COURSE OUTLINES

What is the role of a course outline?

For the Instructor and the Institution

- A course outline is the primary vehicle for course planning – both for initial course planning and revision and updated of courses
- When several instructors teach the same course, the course outline can be used to help maintain standards and consistency
- Course outlines play a role in program review when used to determine which courses may be integrated into new programs

For the Instructor and the Student

- The course outline forms the basis of a contract among the student, instructor, and institution identifying the expectations which will serve as the basis of the student's grade and giving the fundamental required components of the course which the student is guaranteed to receive from the instructor and institution.

For the Student

- A course outline can be used by students to show what they have taken when seeking admission to other programs/institutions or applying for exemptions based on prior coverage of course material

What is the difference between a 'syllabus' and a course outline?

A course outline is a contract that provides the basic components of the course that is used by all instructors teaching the course.

The syllabus goes beyond the basic elements of the course outline to describe how an individual instructor will carry out the course ie by showing specific dates/grading/codes of conduct and other aspects of the course delivery.

What are the basic requirements of a course outline?

- course description
- expected learning outcomes
- assessment plan - a grading policy that is clearly based on course learning outcomes
- number of units of study (hours per week or other time schedule/labs or tutorials etc)
- pre-requisites/co-requisites

Other elements?

For 'learning-mapping' and planning course delivery, a listing of the topics associated with each unit of learning is necessary. Learning outcomes for units of learning can be matched to course learning outcomes.

Sample Course Outline – discussion

Curriculum Documents

<p>Course Outline/Syllabus</p> <ul style="list-style-type: none"> - Indicates specialized resources required to teach this course or used in assessment of students in this course (schools may have specific formats for this component) 	<p>Course outline includes:</p> <ul style="list-style-type: none"> - the course description - explains the relationship of this course to the program - if possible highlight relevance to workplace. - learning outcomes - evaluation plan - indicates any specialized resources required to teach this course (eg lab requirements, IT requirements, library requirements, etc.)
<p>Topical Outline: Topic by topic, modules or lesson by lesson</p> <p>a. Purpose of lesson</p> <p>b. Sources of reference</p> <p>c. Overview</p> <p>d) Formative assessment activities/plan for use during this module</p> <p>e.) Quiz or evaluative instrument</p>	<p>a. A description of the module/unit/lesson and if applicable the relationship of the course to other courses in the program. If possible highlight relevance to workplace. This statement, usually a single paragraph, explicitly references the learning outcomes are being covered in this topic area/lesson or module</p> <p>b.) Describes content resources ie - where the student can go to learn or read about this topic. Identifies sources in the text (section, page number), internet resources, magazines, CD ROM's etc.</p> <p>c.) Lesson content overview – may be PowerPoint slides, pdf files, Note taking outline (major headings with fill in the details format), Notes, Professor's lecture notes – generally at high level providing overview of content area or skill – students will add details as you speak or they do research</p> <p>d.) Describes learning tasks/activities. Describes plan for formative assessment of in class progress (feedback to work in progress). What will the students do in this class, for homework or both to determine if they understand the content material? Detailed instructions for in class activity, instructions for course assignments or projects related to this module (that may come later but be related to this content module).</p> <p>e.)Describes how the student know that they are on track with learning process if an in class quizzes will be used - Optional, in class or on line quiz for practice – might be included here.</p>

Feedback:

Mapping Your Course for Outcomes Based Education

Date: Nov. 14, 2007. Facilitator: Diane Salter.

Thank you for providing feedback regarding this session. Your comments will help with planning for the future workshops.

1. What is your role at Poly U? _____
2. What is your main interest in this workshop, (why do you need to know about) in mapping and outcomes based approaches to OBE?

3. Did you attend session 1 on Nov. 7? Yes No

A. About this workshop

1. What is your overall rating of this workshop as a learning experience?

ExcellentPoor
5 4 3 2 1

2. How useful were ideas discussed in this workshop to your practice as a teacher?

Very Useful Not useful
5 4 3 2 1

3. Please identify any ideas from this workshop series that will be the most useful to you:

PTO and complete back of form

4. What did you like best about the workshop?

5. What could be improved in this workshop?

6. Is there anything else that you would like to add?

Thank you for taking the time to complete this form.