Fundamentals of Team-Based Learning:

Creating an Effective TBL Module

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INTRODUCTION & ABOUT YOUR EBOOK

Hi. My name is Beck McCarter and I am an expert in empowering pedagogies and digital learning. I'm an accredited TBL Trainer-Consultant and the course leader for the Fundamentals of Team-Based Learning Programme..

I created this eBook as a companion to the second workshop in the programme, Creating an Effective TBL Module, and it contains all the preparatory material you will need to participate in the workshop.

I teach you about TBL by using TBL, partly so that you have an opportunity to experience everything from the student perspective but also because I've found that it's without doubt the most effective way to teach and learn.

In order to get the most out of the workshop, please take time to read through this booklet in advance and consider how the TBL approach would work for your subject and context.

I look forward to working with you!

Beck

Intended Learning Outcomes

After completing this workshop, you should be able to:

01 Apply Backward Design methodology to plan a TBL module

02 Construct application exercises that adhere to the 4S framework

03 Design readiness materials that motivate self-directed learning

04 Convert non-TBL course material into TBL format

05 Identify common errors and barriers during TBL module development

Curriculum design is the purposeful, deliberate, and systematic organization of curriculum (instructional blocks) within a programme or course. In other words, it is a way for teachers to plan instruction. Which of the following types is the best match for how you have designed curricula in the past? Would one of the other approaches be a better fit for how you'd like to work now?

01. Content-centred

This approach focuses on particular subjects or disciplines. It can help teachers to plan and standardise material but it tends to ignore individual needs and encourages an auditive approach to assessment.

02. Learner-centred

Learner-centred approaches advocate taking student needs into consideration and feature educative assessment and feedback loops. This creates a highly empowering experience for learners but can be labour intensive for the teacher as they differentiate instruction and balance competing needs and requirements.

03. Problem-centred

Another form of student-centred design, problem-centred curricula focus on teaching students how to collect, organise, analyse and apply information. This can enable deep learning because it can embody what it means to work and think within a discipline. The challenge lies in creating the structure to develop that expertise.

Developing Learning Outcomes

Learning outcomes define what a student should know, understand and be able to do after completing a lesson or programme. By shifting our focus from the syllabus a teacher delivers to the learning a student can demonstrate i.e. from inputs to outputs, we centre effective learning and teaching practices. This explicit statement of goals brings clarity, precision and transparency to curriculum design, teaching and assessment.

Characteristics of Good Learning Outcomes

Learning outcomes that use terms such as 'know' or 'understand' are problematic because they are vague and subjective. You can write more effective learning outcomes by using observable and measureable verbs such as those listed in Bloom's Taxonomy.

Students and faculty use the shared language of learning outcomes to discuss expectations and performance so they should be written in clear and unambiguous terms.

ABCD Model

The ABCD model is a basic formula that enables you to write clear and effective learning outcomes. Learning outcomes should include the following four elements:-

AUDIENCE

Who must achieve the outcome?
Examples: The economist; the placement student; the workshop participant...
Often only listed in terminal outcomes due to redundancy.

BEHAVIOUR

Describes learner capability and mastery.
Must be observable and measureable and can include demonstration of knowledge or skills in any of the domains of learning.
Examples: should be able to write a report; should be able to describe the steps..

CONDITION

Equipment or tools that may be used to complete the behaviour.
Environmental conditions may also be included.
Examples: Given the complete works of William Shakespeare; ...in adverse weather conditions such as rain, fog, ice, snow and dust..

DEGREE

States the standard for acceptable performance - time, accuracy, proportion, quality, etc.
Examples: without error; 9 out of 10 times; within 60 seconds.

Exemplar Learning Outcomes

Below are examples of learning outcomes from three different disciplines. The way they're written means that, even if you have no prior experience or expertise in these disciplines, the chances are you will still be able to generate some ideas about how to help students achieve them. Read each one and consider:-

what learning activities might be effective?
what tools might help you to measure whether a student has achieved them?

1

Given access to a complete set of standard ambulance kit, the paramedic student should be able to identify all of the equipment necessary in order to perform rapid sequence intubation without error.

2

By the end of the module, you will have written a reflective report that will demonstrate a deep self-evaluation to your career aspirations, using your choice of reflective model. You are expected to address 3 areas of self-development.
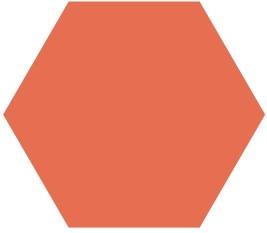
3

By the end of this unit, you should be able to describe the key changes to recruitment and training policy and practice and evaluate the resulting impact on British Policing in the 21st Century.

The elements can appear in any order as long as they still make sense. You may need to differentiate between terminal (programme or module) outcomes and enabling (unit or session) outcomes.

Revising Learning Outcomes

Review your own learning outcomes

Consider the learning outcomes for modules that you are involved with. Choose one or two that are quite challenging - perhaps you find it difficult to come up with inspiration for appropriate tasks to set or maybe students struggle to demonstrate the required learning.

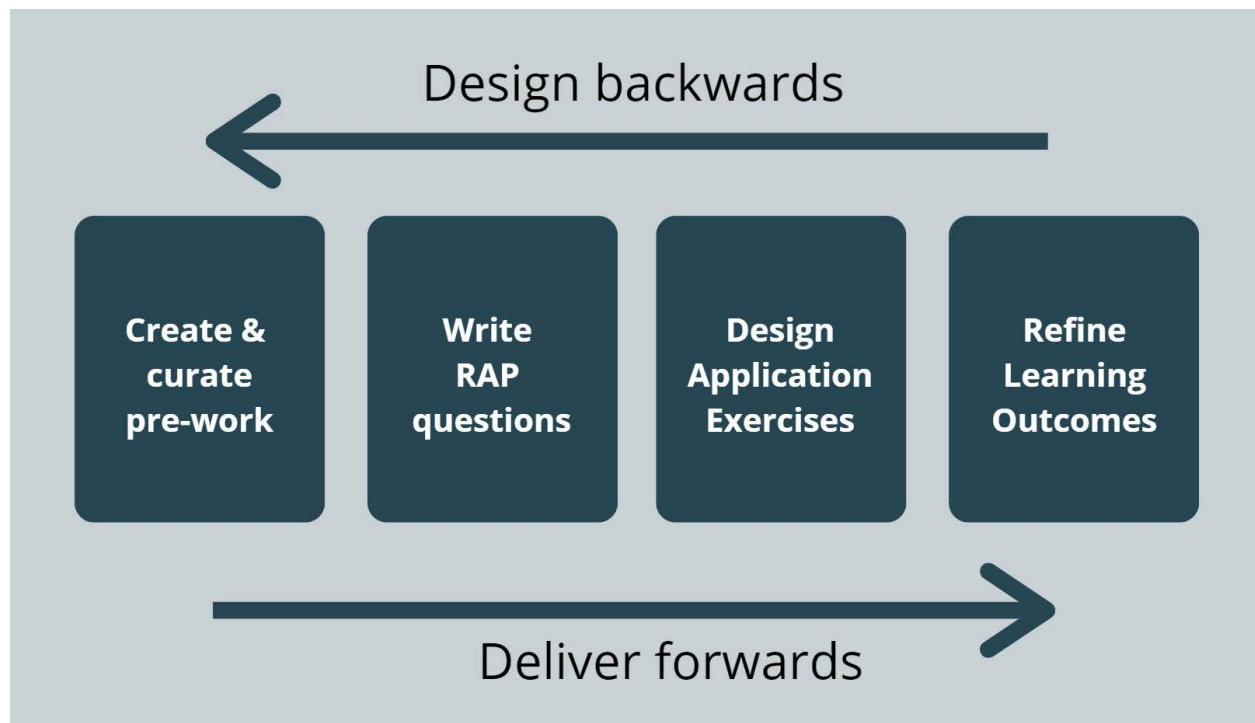Write the full, original learning outcome(s) here - we'll work on them in the session.

1

2

Backwards Design

Design backwards

| Create & curate pre-work | Write RAP questions | Design Application Exercises | Refine Learning Outcomes |

Deliver forwards

BACKWARDS DESIGN CHECKLIST

- [ ] What do you want people to know and be able to do?

- [ ] What will count as evidence that students have met these goals?

- [ ] What tasks can you set that allow students to demonstrate this learning?

- [ ] What do students need from you in order to complete these tasks?

Once you've finalised your Learning Outcomes, you can use the Backwards Design approach developed by Wiggins & McTighe to develop assessment tasks, learning activities and pre-learning packs that align with these goals.

Adopting this systematic approach makes for effective and efficient use of time for you and your students.

Popular Application Exercise Formats

VOTING CARDS

These are based on the MCQ format but designed to generate discussion and explore more complex questions where there isn't necessarily a single best answer and the most appropriate decision is nuanced and context dependent. They are user friendly, quick and simple.

PUSH PIN

Perfect for topics which are best represented by graphics. With careful construction, you can go far beyond basic labelling and identification activities. They make for a different type of simultaneous reveal experience and it is very easy to compare and contrast outputs from different teams.

ARTEFACTS

The specific choice students make here is in how they design/create an artefact e.g. concept maps, process diagrams, posters. Ensure that the significance of the artefact is highlighted so it isn't dismissed as busywork. Creative tasks often take a little longer to complete and debrief so make sure you allow plenty of time.

GALLERY WALKS

After the simultaneous reveal, teams are asked to review the work submitted by other teams. They prepare feedback for each other and vote on a favourite before moving on to the whole class discussion. Great for extending learning and developing feedback literacy but can be time consuming so use judiciously.

10

Structure of an Application Exercise

Introduction

Team Discussion

Simultaneous Report

Class Discussion

11

DESIGNING PRE-LEARNING

How can you make sure that the pre-learning packs you create are effective learning resources? Richard Mayer developed 12 Principles of Multimedia Learning which you can use as guidelines to help you maximise learner comprehension.

1

Coherence
Cut out extraneous material so the learner isn't distracted. Think: reduce, simplify, clarify.

Signalling
We learn best when shown where to direct our attention; use highlights, arrows and sections.

Redundancy
Most of us learn best with narration plus graphics - offer text as closed captions.

Spatial Contiguity
Present related text and graphics close to each other on screeen or page to reinforce the link.

Temporal Contiguity
Present related text and graphics at the same time to reinforce the link.

6

Segmenting
Break up learning into smaller, bitesize chunks. Give learners more control over pace with next buttons and optional video settings.

Pre-training
Use introductory guides to teach basic definitions, terms and concepts.

Modality
Use visuals and limit the amount of text on screens and slides.

Multimedia
We learn better from words and pictures than words alone.

Personalisation
We learn better from an informal, conversational voice.

Voice
We learn better from human than computer voices. Use proper audio kit.

Image
Use talking heads sparingly - they develop rapport but can distract from complex material.

Make sure you check how long it takes to complete the pre-learning, preferably by asking someone not already familiar with the material to work through it so that you can adjust workload where necessary.