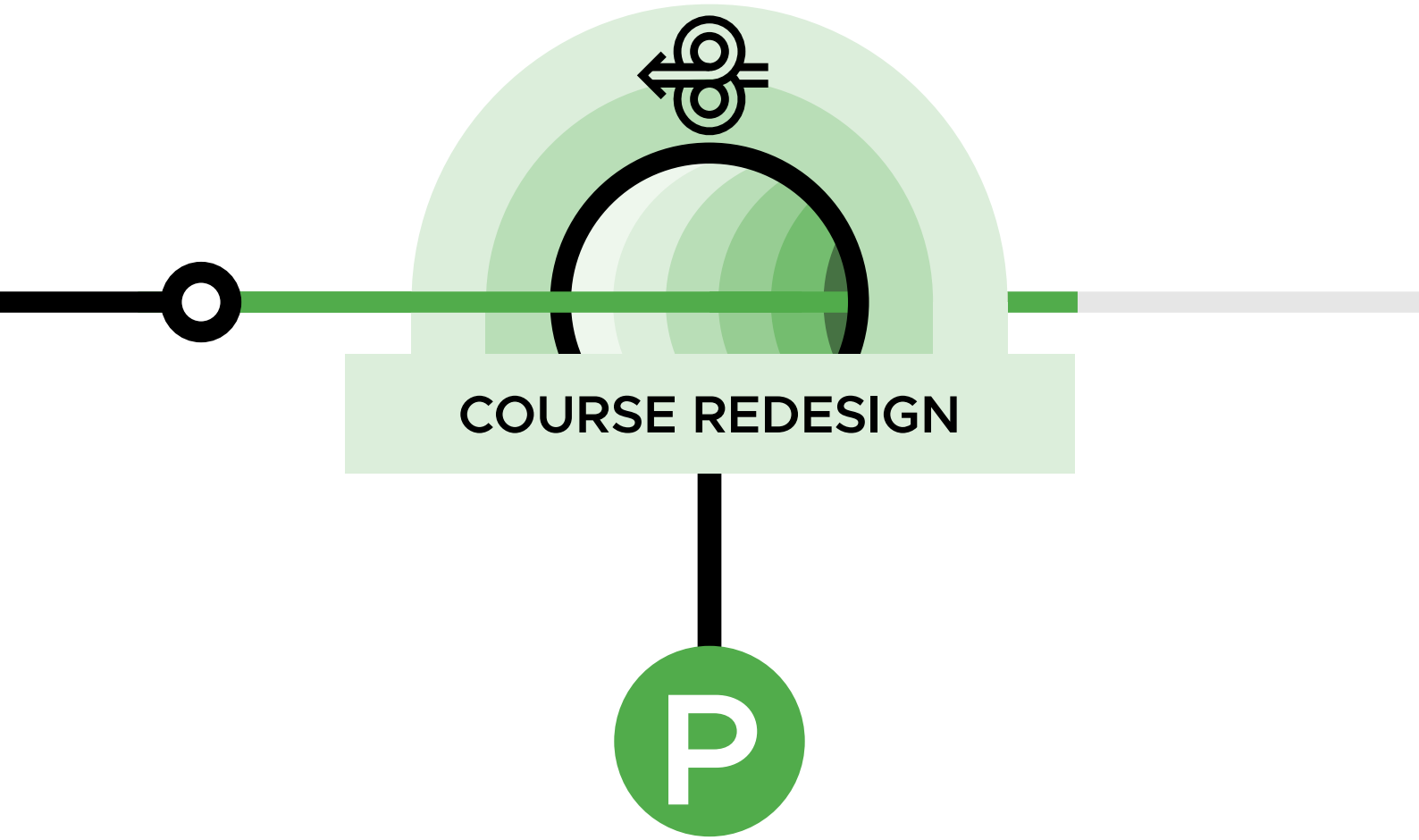
TRANSFORMING HIGHER EDUCATION
FOR SOCIAL CHANGE A MODEL FROM EAST AFRICA

PARTICIPANT HANDBOOK

PROGRAMME ALIGNEMENT
TRANSFORMATIVE LEARNING
COURSE REDESIGN
LEARNING DESIGN



TESCEA
TRANSFORMING EMPLOYABILITY FOR SOCIAL CHANGE IN EAST AFRICA

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This toolkit has been developed by the Transforming Employability for Social Change in East Africa (TESCEA) partnership.

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The TESCEA partnership is a consortium of seven organisations from four countries, Mzumbe University, University of Dodoma, Gulu University, Uganda Martyrs University, AFELT, Ashoka East Africa and INASP.

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UKaid from the British people

SPHEIR Strategic Partnerships for Higher Education Innovation and Reform

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TRANSFORMING HIGHER EDUCATION FOR SOCIAL CHANGE – A MODEL FROM EAST AFRICA

Welcome to the Course Redesign for Significant Learning and Transformation workshop. This workshop is part of the transforming higher education for social change model, which has been developed by the TESCEA partnership. It builds on the Programme Alignment and Transformative Learning workshops, which you may have participated in prior to this workshop. During the Course Redesign workshop you will be taken through a process that will enable you to conceptualise your course content to embed the soft skills and gender responsiveness that your students will need. We hope you will find this beneficial for your teaching and learning practice.

Transforming Higher Education for Social Change – a model from East Africa is a rigorous methodology of pedagogy and curriculum redesign that supports lecturers to rethink their teaching and become facilitators of student-centred learning – helping students learn how to think, not what to think.

This improved learning experience fosters the development of critical thinking and problem-solving skills, and allows for practical learning beyond the classroom that can improve a graduate's employability.

Developed by the TESCEA partnership, our toolkits and online courses guide lecturers and institutions through a learning journey to transform their teaching and learning practice. You can follow the complete learning pathway from programme alignment to learning design, or choose to engage with the individual elements that are most relevant to you.

Underpinnings of the learning journey

CRITICAL THINKING AND PROBLEM SOLVING

Our model supports teaching for critical thinking and problem solving. The main purpose of the model is not to teach a specific set of skills, or body of knowledge, but to equip your students to be able to think for themselves, to appraise and assess information and evidence, and to use it to formulate arguments, and to solve problems.

GENDER-RESPONSIVE TEACHING AND LEARNING

Pedagogical practices can reinforce gender inequalities in the classroom, restricting learning outcomes for women and perpetuating gender stereotypes. Our approach to gender-responsive pedagogy addresses this by integrating gender-responsiveness into the processes of curriculum design, teaching and learning, class management, and assessment.

SUPPORTING RAPID CHANGE

Many initiatives to improve teaching and learning have sought to re-design a whole degree programme. This is valuable, but also takes time. Instead, our model supports a course-level approach to transformation, enabling you to design, test and refine your course iteratively. By re-designing courses in one semester and teaching them the next, you are able to put ideas into practice sooner, to see how your course works in the classroom, and to make rapid adjustments.

> *“My belief and values regarding students have changed. I have realised that in order to make learning effective they need to be treated as partners.”*
>
> Lecturer, Tanzania

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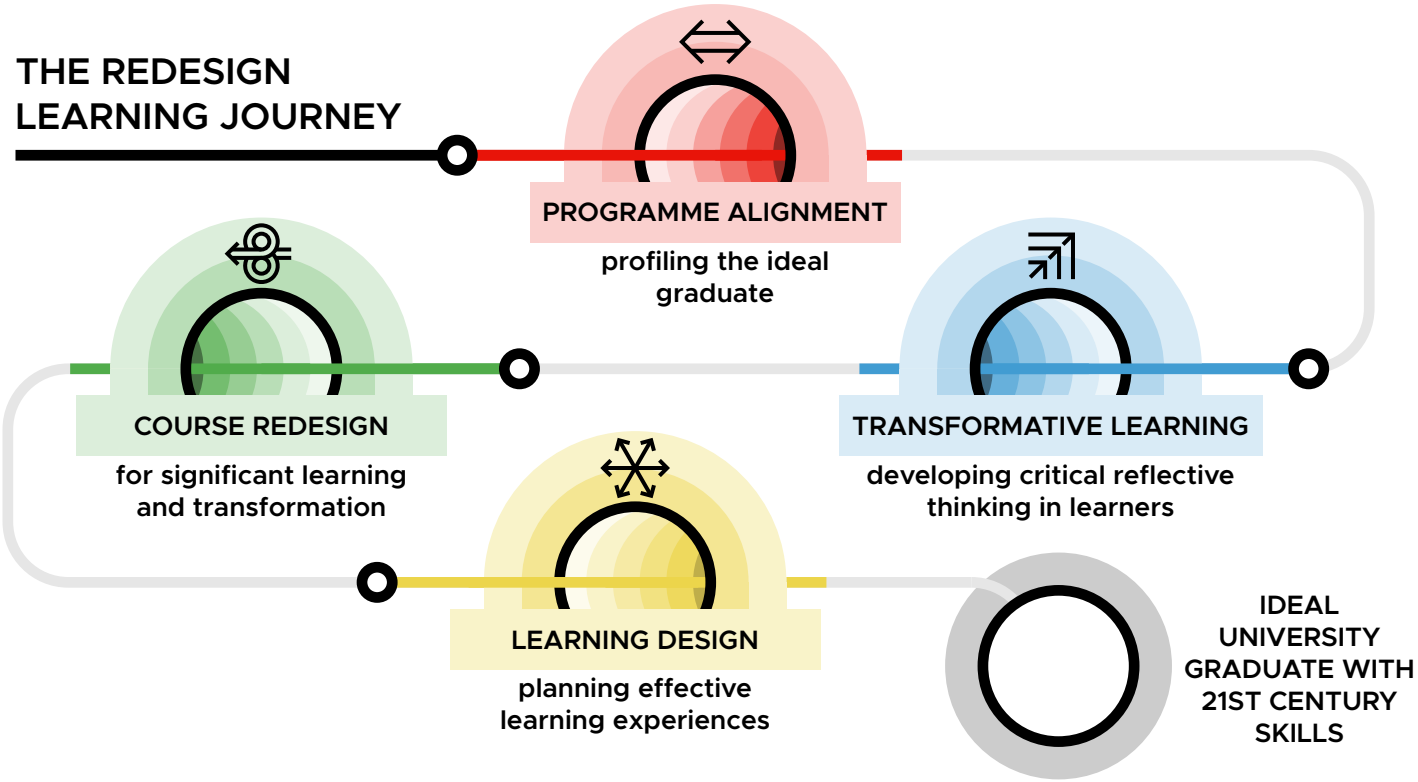
OVERVIEW OF THE REDESIGN LEARNING JOURNEY

REDESIGN LEARNING JOURNEY



SUMMARIES OF REDESIGN WORKSHOPS AND ONLINE COURSES

Programme Alignment – Profiling the Ideal Graduate – face-to-face workshop

The Programme Alignment – Profiling the Ideal Graduate workshop is aimed at key academic teaching staff (including Heads of Departments, Deans and Quality Assurance Officers) involved in designing and delivering programmes and courses, mainly at the undergraduate level, that will be undergoing redesign. The workshop is designed to support a process of conceptualising the big picture of the nature and character of the type of ideal graduate that the university is aiming to shape and how each individual institutional unit, programme and course contributes to the development of this graduate. The workshop can take the form of a two to three-day workshop which can either be conducted with representatives from three to four programmes from different institutional units at the university or with all programmes in the same institutional unit in one session.

Throughout the workshop, key academic teaching staff involved in delivering a programme are taken through a process ensuring that they design programmes and courses that pay attention to the ultimate goal; namely the shaping of employable graduates equipped with 21st century skills.

Transformative Learning – Developing Critical Reflective Thinking in Learners – face-to-face-workshop

The Transformative Learning – Developing Critical Reflective Thinking in Learners workshop is aimed at academic teaching staff, who teach mainly at undergraduate level. Its goal is to promote a growth mindset amongst academic teaching staff and equip them with the necessary competencies to infuse critical thinking and problem-solving into their own teaching (and facilitation) practice and within the learning environments in which they operate.

The two and a half-day workshop is designed to inspire and furnish academic teaching staff with the skills to mainstream Transformative Learning within their courses. The workshop can alternatively be run as a series of shorter 'chunked' workshops run over a longer period of time, allowing participants more opportunity to reflect on their own facilitation practice and to make incremental changes to their facilitation approach.

Throughout the workshop, academic teaching staff are taken through a process that simulates the Transformative Learning Cycle (TL Cycle), which they are encouraged to embed in their own facilitation of learning practice. Through the adoption of this cycle and Transformative Learning Pedagogy, academic teaching staff are able to create learning environments which move students beyond simply 'knowing' to confidently exercising critical reflective thinking and problem-solving in all areas of their life.

Students and graduates who possess these skills, capabilities and dispositions are more likely to demonstrate the ability and mental agility to create their own futures; innovating and creating new knowledge, becoming the changemakers they need to be, to transform themselves, their communities and the world for the better.

Course Redesign for Significant Learning and Transformation – face-to-face workshop

The Course Redesign for Significant Learning and Transformation workshop is aimed at academic teaching staff, who teach mainly at the undergraduate course level. Designed to support a short- or long-term process of hands-on course redesign, the course redesign workshops can take the form of a five to seven-day workshop, with academic teaching staff continuing to work on the redesign of their course after the workshop ends. They can, however, also be run as a series of shorter 'chunked' face-to-face workshops over a longer period of time, with academic teaching staff working on the design of their course between each workshop.

The methodology adopts a two-layered approach to course redesign. Academic teaching staff start by conceptualising the content of their course; then crafting learning outcomes based on these concepts, inculcating the hard and soft skills required in that discipline, then producing a course assessment plan and schedule of teaching and learning strategies, aligned to their course learning outcomes.

Throughout the course redesign process, academic teaching staff importantly embed the soft skills, capabilities and dispositions that their students will need to develop and master within that discipline. In addition, they are challenged to improve their own pedagogy to ensure that both their male and female students equally derive learning from their course and master the required gender knowledge and skills related to that discipline. These are the 'power skills' that employers, communities, and students themselves are demanding, not only to enable students to become the experts they need to be, but to transform themselves and ultimately the world around them.

Course Redesign for Significant Learning and Transformation – online course

The purpose of the Course Redesign for Significant Learning and Transformation course is to enable academic teaching staff to conceptualise their course content to embed the soft skills and gender responsiveness that their students will need when entering the world of 21st century employment. The course is aimed at academic teaching staff who teach mainly at the undergraduate level.

Academic teaching staff will start by conceptualising the content of their course; then crafting learning outcomes based on these concepts, inculcating the hard and soft skills required in their discipline, producing a course assessment plan and a schedule of teaching and learning strategies aligned to their course learning outcomes.

Hosted on Moodle, an online learning platform, the course is running in a mostly asynchronous mode – allowing the participants maximum flexibility as to when to learn – complemented by synchronous drop-in clinics where the participants have a chance to interact with facilitators and peers in real time. The content of the course is delivered in a mixed-media format – text-based resources, videos and interactive exercises. There is also group work in a dedicated discussion forum to provide mutual support and feedback on a course assignment.

Following successful completion of all eight units, academic teaching staff will have developed an outline of a redesigned course that will equip their students with 21 century skills alongside subject knowledge. The natural continuation of this course is the 'Learning Design – planning effective learning experiences' course in which the participants will start planning each of the learning sessions step by step to ensure a high-quality learner experience.

Learning Design – Planning Effective Learning Experiences – online course

The purpose of this online course is to introduce academic teaching staff to the aspects of Learning Design; a methodology which helps facilitators of learning to plan for the delivery of their courses step by step and from the perspective of learners.
It helps to ensure varied and effective learning experiences for students.

This six-week online course can be taken as a standalone training, or subsequent to the workshops identified above. Hosted on Moodle, an online learning platform, the content is delivered in a mix-media – text-based resources, videos and interactive exercises. There is also group work with a dedicated discussion forum to share ideas and feedback on an authentic assignment as well as peer-review activity.

Following successful completion of all five units, academic teaching staff will develop a gender responsive, high-quality learning design for their own course, using the Learning Designer online tool.

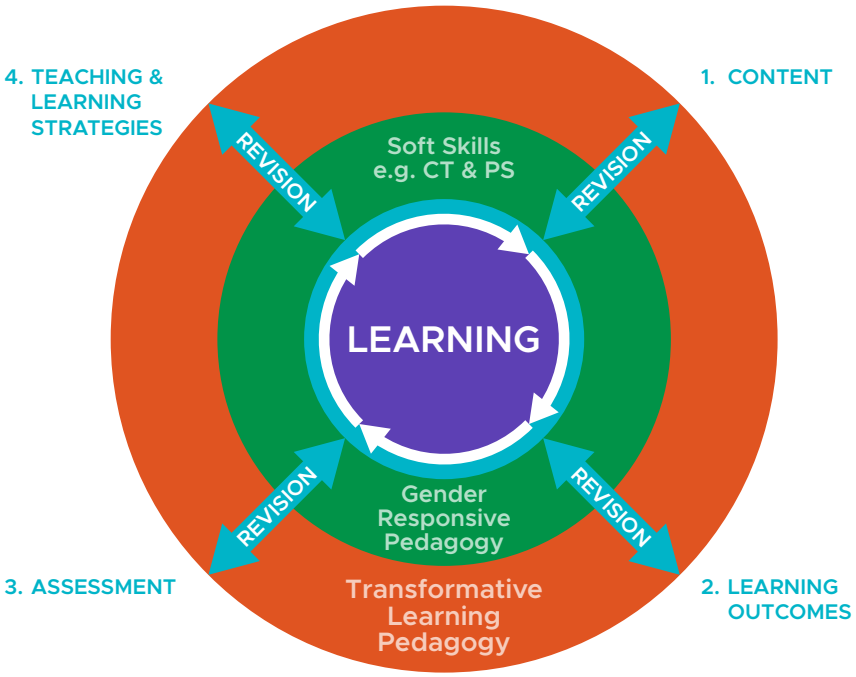
OVERVIEW OF THE COURSE REDESIGN WORKSHOP

CONCEPT MAP FOR THE COURSE REDESIGN WORKSHOP

This workshop takes the form of a five-day workshop and its structure, for the first four days, is based on one different core concept being introduced each day. The fifth day gives you the opportunity to consolidate your learning generated across the previous four days, by becoming acquainted with an online learning design tool and by delivering a showcase pitch for your redesigned course to your peers.

The concept map for the workshop is provided below, together with a detailed explanation of its key elements.

The workshop is organised around four core concepts: **content, learning outcomes, assessment and teaching and learning strategies** and two concepts (in the inner green circle) that cut across all four core concepts: **soft skills** (for example critical thinking and problem-solving skills) and **gender-responsive pedagogy**.



The workshop starts by focusing in on your subject matter expertise, in your particular discipline. You also reflect on the soft skills that your students will need to develop and master within that discipline. These are the 'power', or transferable, skills that employers, communities, and students themselves are demanding. The subject matter and soft skills required for the course you are redesigning is referred to as **content**.

The workshop then moves you on to think about what you want your students to learn in terms of content and soft skills i.e. the **learning outcomes**. This is followed by how you and your students are going to know when and what learning has occurred – in other words, **assessment**.

Next you go on to think about what you're going to do in the teaching of your course and what will happen in the sessions that will support your students' learning, i.e. **teaching and learning strategies**. Note that the assessment concept is reviewed before the teaching and learning strategies. This is because you need to know what you want to assess first before you can select appropriate teaching and learning strategies.

As already mentioned, the **soft skills** cut across all four core concepts, being integrated into each concept to ensure that your students graduate with the 'power', or transferable, skills they will need for work and in life.

Gender-responsive pedagogy also cuts across all four core concepts, being integrated into each concept to ensure that both your male and female students equally derive learning from the course and master the required gender knowledge and skills related to the discipline.

Learning is in the centre and refers to both the learning of your students and your own. It applies to all the decisions you make. For every action, you need to ask yourself: is learning happening? and if yes, what kind of learning?

The 'revision' arrows indicate that the choices or revisions that you make within the broader course redesign process affect what kinds of learning will happen and the learning that happens (or doesn't) will affect how you redesign your course.

Last but by no means least, the outer orange circle represents **transformative learning pedagogy**, which underpins the overall course redesign process. Hopefully you will have already learnt about transformative learning in the workshop prior to this one. You are expected to redesign your course to enable your students to experience transformative learning and to ultimately transform themselves and the world around them.

DAYS 1–5 WORKSHOP SUMMARIES

On **Day 1**, you start to conceptualise your course content through concept mapping, selecting the most important subject matter and skills that your students must learn in your course, i.e., content that transforms your students.

On **Day 2**, you draft the learning outcomes for your course, thinking through the kinds of learning that can transform your students – by developing their critical thinking and problem-solving skills, for example.

On **Day 3**, you work on developing assessments that go beyond summative assessments and grades. You start to design formative assessments that will inform your teaching and transform your students' learning as stipulated in your learning outcomes, inculcating both soft and hard skills.

On **Day 4**, you work on teaching and learning strategies that are aligned to your course learning outcomes, taking a metacognitive approach and promoting critical reflective thinking.

Finally, on **Day 5**, you have the opportunity to try out an online tool that can help you design effective learning experiences. At the end of the final day, you will pitch your redesigned course, as if to a new class of students.

WORKSHOP APPROACH

Format of the workshop

The workshop is an interactive, collaborative and reflective learning experience. Workshop sessions take the form of plenary and small group discussions, hands-on activities in breakout groups and daily personal reflection. The teaching and learning activities have been specifically chosen to model learning-centred teaching that focuses on what you need to learn and the best way to support you in doing that.

The assigned compulsory readings are a **key component** of the workshop. You will have already received the links to the readings, or hard copy versions, in advance of this workshop. They are not included in the participant handbook. While there are specific sessions for you to further investigate the ideas in the readings, the content of all four readings informs the sessions throughout the five days of the workshop. The importance of you completing these readings and accompanying tasks in advance of the workshop cannot be stressed enough.

Woven through the five days of the workshop are daily gender sessions based on five dimensions of gender. These dimensions help you to build a gradual understanding of gender as well as to think through how gender is relevant to the course you are redesigning.

A word of warning! do not expect to finish all the session activities and outputs during the course of this workshop. Some activities are designed to stimulate different kinds of thinking, so the process and the learning points that surface are often more important than the output itself. However, as self-directed learners, you can decide what you think is important to finish outside the workshop sessions.

Participant handbook

You will have received a soft copy and hard copy of the participant handbook. The day-by-day resources are a mix that you can use both during and after the workshop, including links to videos and other external resources. There are also sections where you can type notes or reflections in response to questions, as part of the session activities. The handbook is designed to be used while you participate in the course redesign workshop; sections will be signposted by the workshop facilitators at relevant times during the sessions.

It is important that you have **access to the soft copy** of the participant handbook during all five days of the workshop. It contains online links that you will need to access in and outside the sessions. It is recommended that you make notes in the soft copy version of your handbook as it is highly likely that you will need to revise your original inputs as you progress through the workshop. It also allows more flexibility in the amount of space you have to make notes.

Do not forget to also bring your programme alignment and transformative learning participant handbooks to the course redesign workshop. You will be drawing on the content and the notes you made previously to inform some of the activities in this workshop.

Whole-group sessions

For each of days 1–4, you learn one new concept, with the following day's concept being introduced in the afternoon. The sessions are divided into whole- and breakout-group sessions. The whole group sessions are for all participants and are held in the main room or learning space.

The purpose of the whole-group sessions is to provide relevant information that will enable you to work on more hands-on activities in the later breakout sessions. Participants in the whole-group sessions may be asked to work individually, in pairs or groups, or in the plenary. When forming small groups in these sessions, the facilitators will try to ensure a balanced distribution of participants based, for example, on gender, discipline and years of teaching or facilitation experience.

In the whole-group sessions, time will be limited. You may not always have the time to grasp all of the information being shared and you are likely to carry over questions to the breakout group sessions. So, try to keep to time during these sessions, otherwise there is a serious risk of overrunning. It is important that you practise the behaviours of a self-directed learner, prioritising what you need to read, watch or listen to and building in some time outside the sessions to study the materials further.

Breakout-group sessions

The breakout-group sessions usually comprise 5–8 participants and two workshop facilitators. The workshop facilitators will have formed the groups in advance ensuring diversity in terms of teaching experience, gender, and discipline within each participant group. Completing and returning the needs assessment questionnaire sent out to you will have helped them in this task. Each breakout group should be working in a separate dedicated room or space. In these sessions, you have the opportunity to clarify any pending issues and ask the workshop facilitators any remaining questions you might have from the whole-group sessions. It is important that you participate in these breakout sessions, as this is where you can apply the concepts presented in the whole-group sessions, to your own course redesign. It is also an opportunity to deepen your learning through participating in the hands-on activities. The breakout groups provide a relaxed, trusting and positive environment, where you can express yourself with confidence and enjoy the learning opportunities that come with working in smaller peer groups.

DAY 1: CONCEPT MAPPING

LINK BETWEEN TRANSFORMATIVE LEARNING AND COURSE REDESIGN

Note your immediate thoughts to the following questions in the table:

- How will the course that I am designing enable my students (both male and female) to live the Big Dream for my course?
- What is the most important content (concepts) that my students need to learn in my course so that two, ten years down the line they will still value the course?
- What kinds of learning (learning outcomes) do I want my students to experience?

Transformative learning is about meaning-making. Mezirow (1991) asserts that making meaning is central to what learning is all about and it is what brings about transformation. In transformative learning, students reinterpret an old experience or a new one from a new set of expectations, thus giving a new meaning and perspective to the old experience. The Course Redesign workshop builds on the previous Transformative Learning workshop.

When redesigning your course, some of the questions that you can ask yourself to enable your students to critically reflect and ultimately transform themselves and their world, are:

- Will this course enable my students (both male and female) to make meaning, to create and innovate, to learn and become the person(s) described in the Big Dream for my course?
- On checking learning progress (assessments), can I incorporate some form of critical reflective thought in assessments using critical questioning?
- What about the teaching and learning strategies that I will select to achieve the above-mentioned learning? Will they enable my students (both male and female) to make meaning instead of just making sense, that is, learn the most important content (concepts) from the known to the unknown?

DIFFERENTIATION OF TERMS: CONCEPT AND TOPIC

Concepts are mental categories for facts, objects, events, people, ideas – even skills and competencies – that have a common set of features across multiple situations and contexts. Concepts can range from simple to complex according to how easily they can be defined.

A **concept** is an organising/ categorising idea that is universal (not linked to a specific place, people or thing i.e., can be taken from any culture), timeless (not linked to a specific time or era i.e., can be taken from any period of time), and transferable (not linked to a specific context i.e., can relate to many other disciplines and aspects of life) in its use.

A **topic** is a specific instance of a concept and is generally context, place, and time bound.

Examples from past course redesign workshops

CONCEPTS	TOPICS
Material structure	Atomic structure, atomic bonding, crystal structure
Material properties	Thermal, optical, magnetic, electrical and mechanical
Material performance	Corrosion resistance, endurance
Material processing	Phase diagrams, crystallization, diffusion, strengthening mechanisation

Source: Collins Okello, Faculty of Agriculture, Gulu University

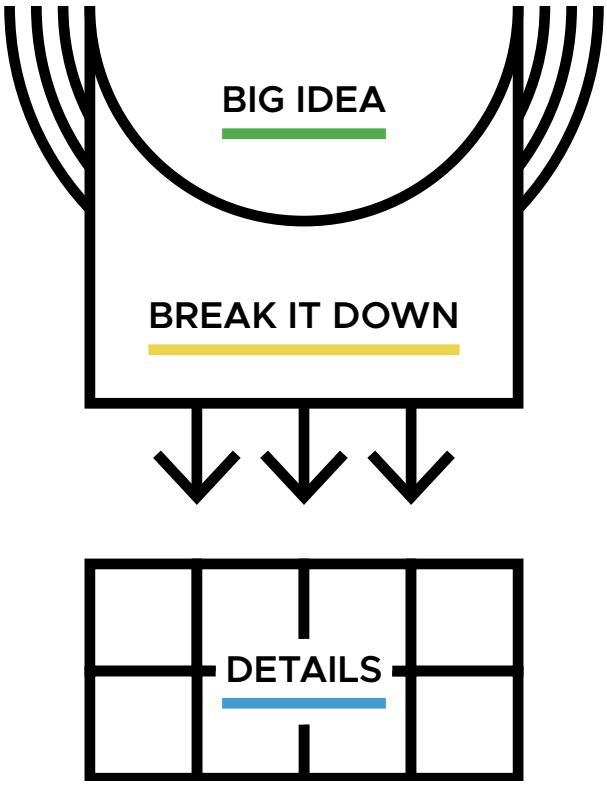
CONCEPTS	TOPICS
Acquisition	Human resource planning, recruitment, selection, appointment and placement, orientation/socialisation
Development	Training and development, succession, management development, career management and development
Motivation	Job satisfaction, compensation and reward management, performance management and appraisal
Maintenance	Management of health and safety, retirement, turnover and retention

Source: Jacinta Bwegyeme, School of Business, Uganda Martyrs University

Conceptual and traditional learning

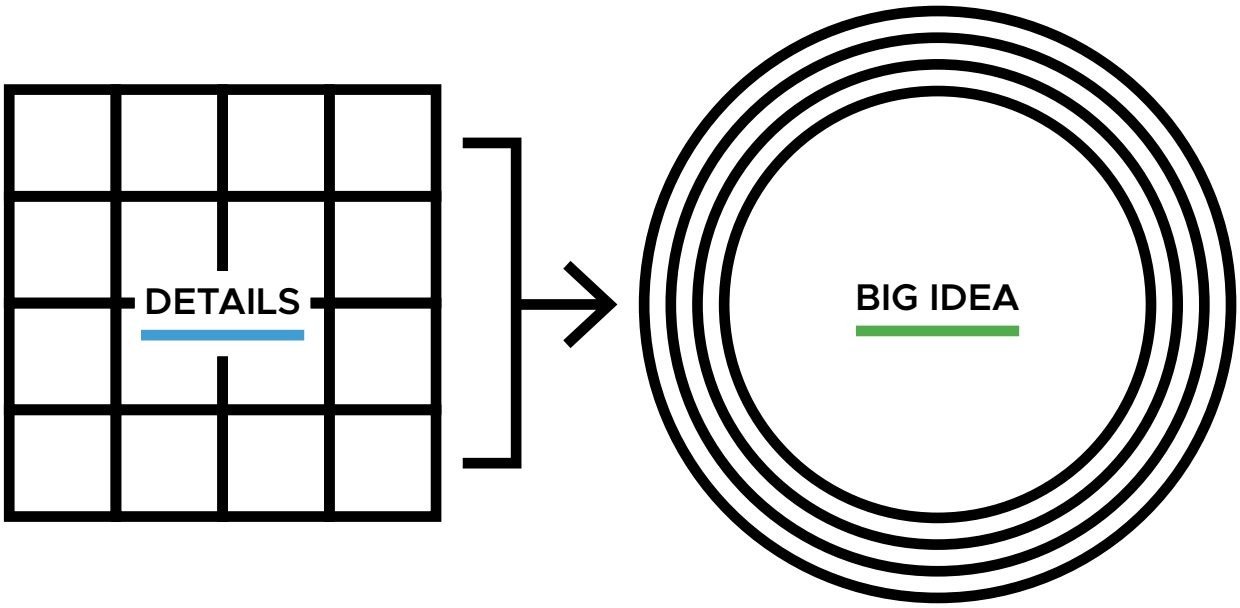
Conceptual learning

Starts from the big idea and moves to the details.



Traditional learning

Starts from details and moves to the big idea.



DAY 1 VIDEOS ON DEMONSTRATING THE PROCESS OF DEVELOPING A CONCEPT MAP

The following videos feature two different facilitators of learning who describe what they did on Day 1 of the Course Redesign workshop. The two demonstrators talk about the process of developing their concept maps for their courses and the thinking that went into the process of conceptualising the content. In addition, the demonstrators outline the feedback they received from their peers and workshop facilitators and how it helped improve their concept maps. They also talk about how they have continued to think about and refine their concept maps following the workshop to highlight that the process of conceptualising course content continues over time.

Video 1.1a – www.inasp.info/CR11a

Video 1.1b – www.inasp.info/CR11b

SUGGESTED STEPS FOR CONSTRUCTING A CONCEPT MAP

1. Continue with the bullet-pointed list of content (subject matter and skills), of the course you plan to redesign. Add any others you consider to be major course content.
2. Read through your list and try to narrow down the content.
3. Write each bullet point (content) on a sticky note and post it onto a fresh sheet of manilla paper (**Manilla A**).
4. Reflect on the content (what is the most important, what can be merged, what can be removed) once you have posted all of it onto **Manilla A**.
5. Merge (i.e. conceptualise) the content on the sticky notes to form concepts.
6. Write the concepts on new sticky notes and remove the sticky notes you used earlier, as they are no longer needed.
7. Arrange the sticky notes with the concepts, on **Manilla A**, in a way that you think reflects the relationships between the concepts, using connecting lines/arrows, for example. Remember, this is how YOU see the course content and a colleague in the same discipline may view it somewhat differently. The assumption is that you teach from your own view of the subject matter content.
8. Think about the overall shape or format of your arrangement of the concepts – does it reflect the overall structure of knowledge in the course?
9. Try to label the connecting lines/arrows between concepts to indicate more clearly the nature of the relationships between them.
10. Ask for feedback (see "Suggested ways to critique a concept map").
11. When you are satisfied with your first draft, you might want to construct a graphic in soft copy that represents the arrangement of the sticky notes.

Reminder: Your map will likely undergo changes as you think more about the content of the course and as you work through the different stages of course redesign.

GENDER-RESPONSIVE PEDAGOGY: COURSE CONCEPTS – QUESTIONS TO ASK YOURSELF

It will depend on the nature of a course as to whether gender can feature clearly at the concept level. For some courses, concepts will tend to be gender neutral until the more detailed content is mapped out and the learning design for the teaching of the content is put together. For other courses, e.g. medicine and sociology, gender can be relevant to include directly at the concept level.

Regardless of whether gender can feature directly in the concepts for your course or not, it will be relevant for you to consider how gender might play out in relation to your concepts and how you might be able to respond to this in your course.

WHAT SPECIFIC QUESTIONS COULD YOU ASK YOURSELF TO INFORM THE GENDER RESPONSIVENESS OF YOUR COURSE CONCEPTS?

1. What are the gender inequalities that exist globally and in your country? Are there gender inequalities that are specific to your region?
    - How might these gender inequalities play out in your course? Do you need to consider any of them either directly in your course concepts or in the way you will teach these concepts?
2. How will your students, as future professionals, encounter gender issues in the course of their professional work?
    - How might these professional gender issues play out in your course? Do you need to consider any of them either directly in your course concepts or in the way you will teach these concepts?
3. What are the gender stereotypes related to the field you are teaching?
    - How might these stereotypes play out in your course? Do you need to consider any of them either directly in your course concepts or in the way you will teach these concepts?
4. What gender biases and assumptions on gender/gender blindness exist in the research that informs the field you are teaching? Is research data in your field gender disaggregated and are gender differences analysed and addressed?
    - How might these biases and assumptions play out in your course? Do you need to address how students conduct gender-responsive research either directly in your course concepts or in the way you will teach these concepts?

SUGGESTED WAYS TO CRITIQUE A CONCEPT MAP

When you have a draft of your concept map:

A. Find someone to listen while you describe your concept map; ask them to detect whether you mention ideas or relationships that are not included in the map. The emphasis of the feedback should be on how well the explanation is reflected in the actual concept map.

B. Interrogate the concept map, either your own or your colleague's:

1. What is the most important content (concepts) in my course?
2. What are the specific relationships between each of/among the concepts?
3. What is the rationale for the sequencing of the concepts and the relationships between them?
4. Have any relationships been overlooked?
5. What would happen if "x" concept was moved?
6. Is it apparent which concepts are peripheral/less important?
7. Is it apparent which concepts are central/important?
8. In what ways has gender been considered in the formulation and organisation of the concepts?

RATIONALE FOR THE SEQUENCING OF CONCEPTS AND MAPPING OF RELATIONSHIPS

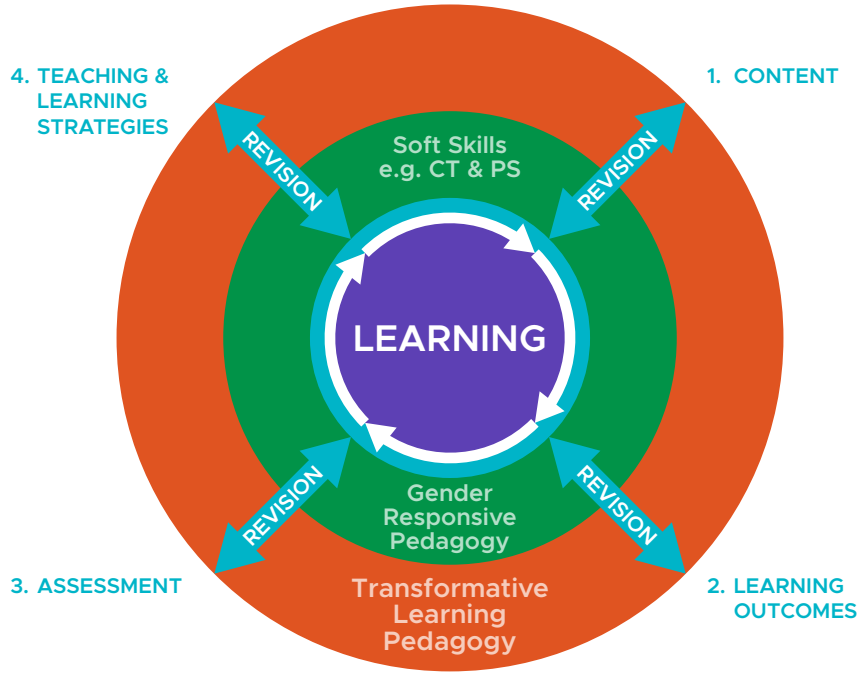
The rationale for the sequencing of the concepts in the course is important to record, especially if you are not using an assigned text in chapter sequence. For example, it might be based on a historical approach with topics arranged chronologically, a progression from simple to more complex procedures or concepts, or a series of theoretical principles followed by applications. Make sure to include the reasons why you have mapped out the relationships between and among the concepts as depicted in your course concept map.

Draft your rationale in the table:

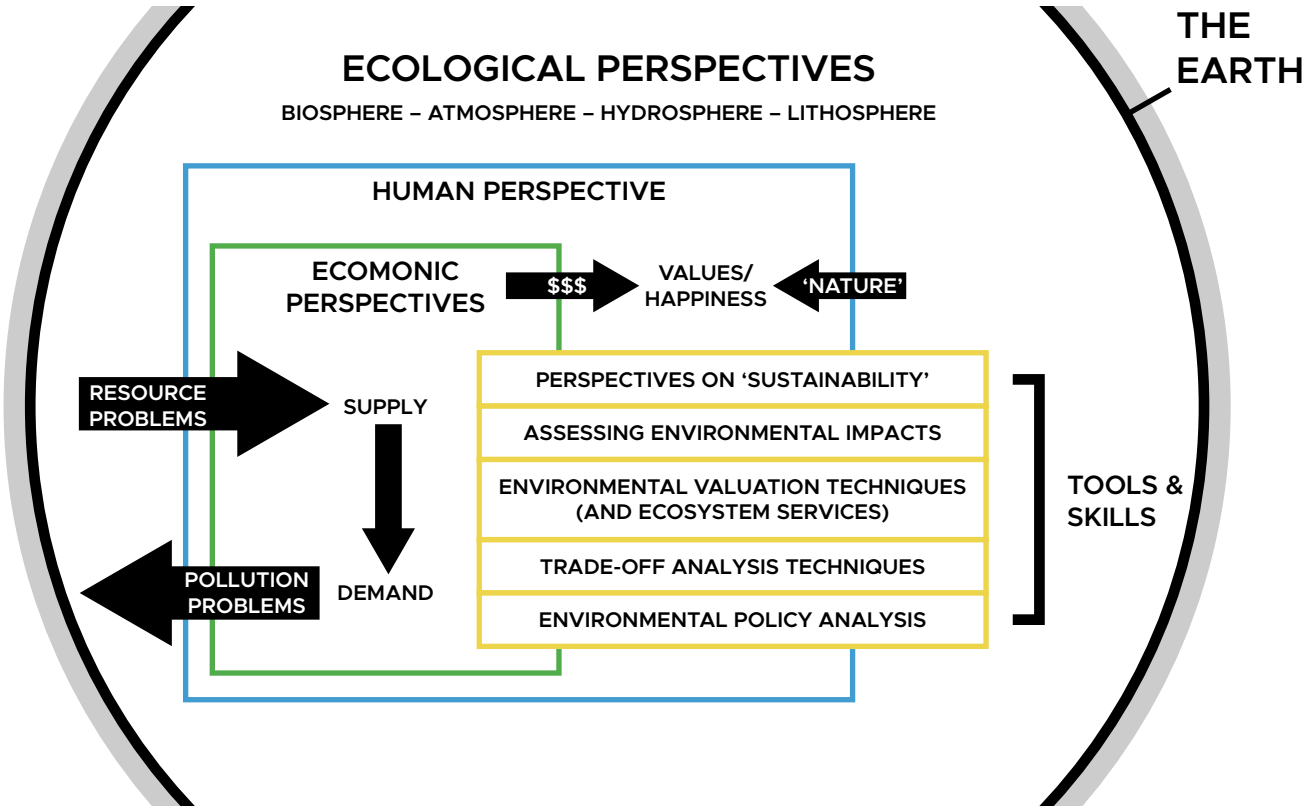
EXAMPLES OF COURSE CONCEPT MAPS

N.B. It is recommended that you view these concept maps on a screen rather than in printed form.

EXAMPLE 1: CONCEPT MAP FOR "COURSE REDESIGN FOR SIGNIFICANT LEARNING AND TRANSFORMATION" WORKSHOP

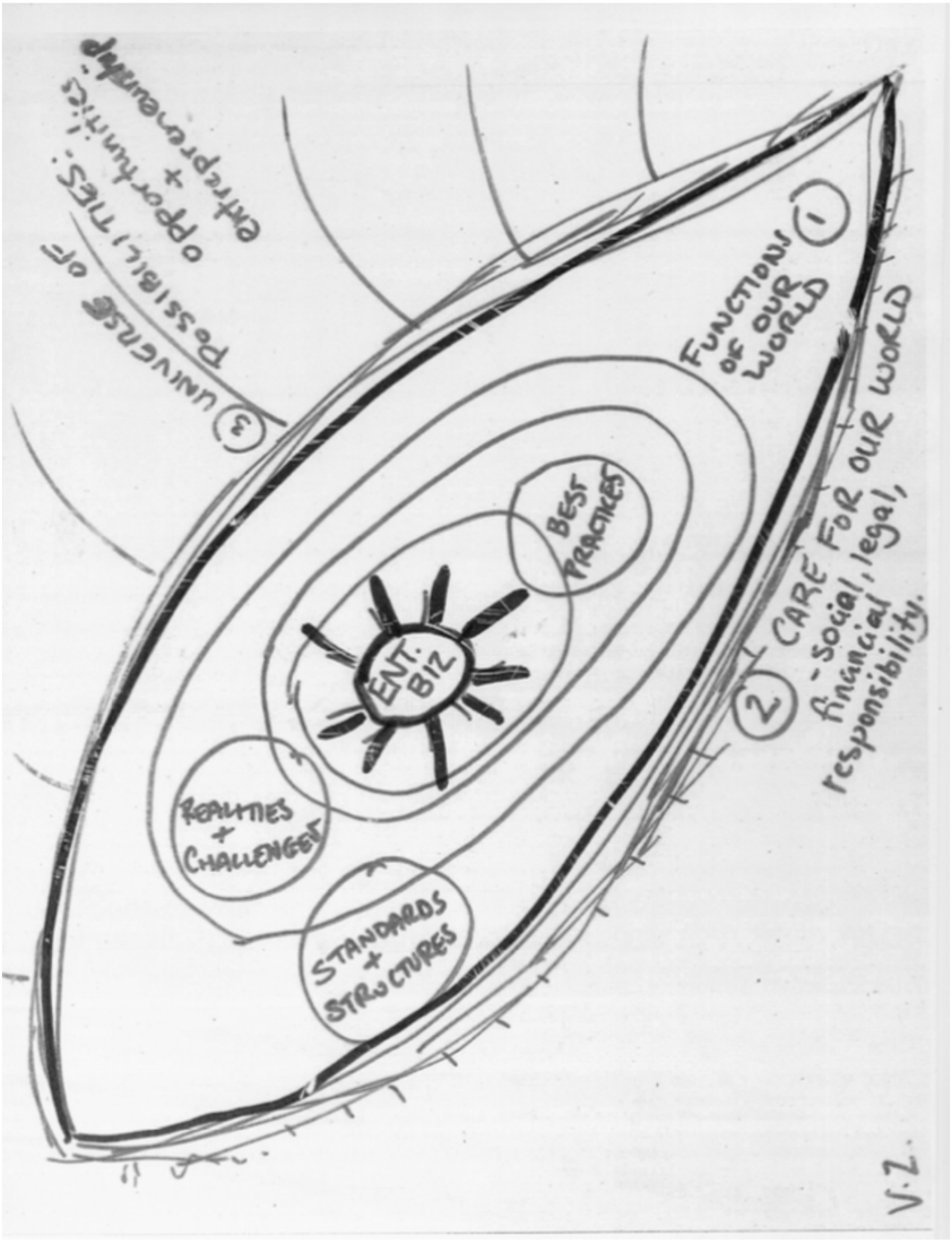


EXAMPLE 2: FINAL CONCEPT MAP FOR "ECOLOGICAL ECONOMICS" COURSE (REM/ENV321-621)



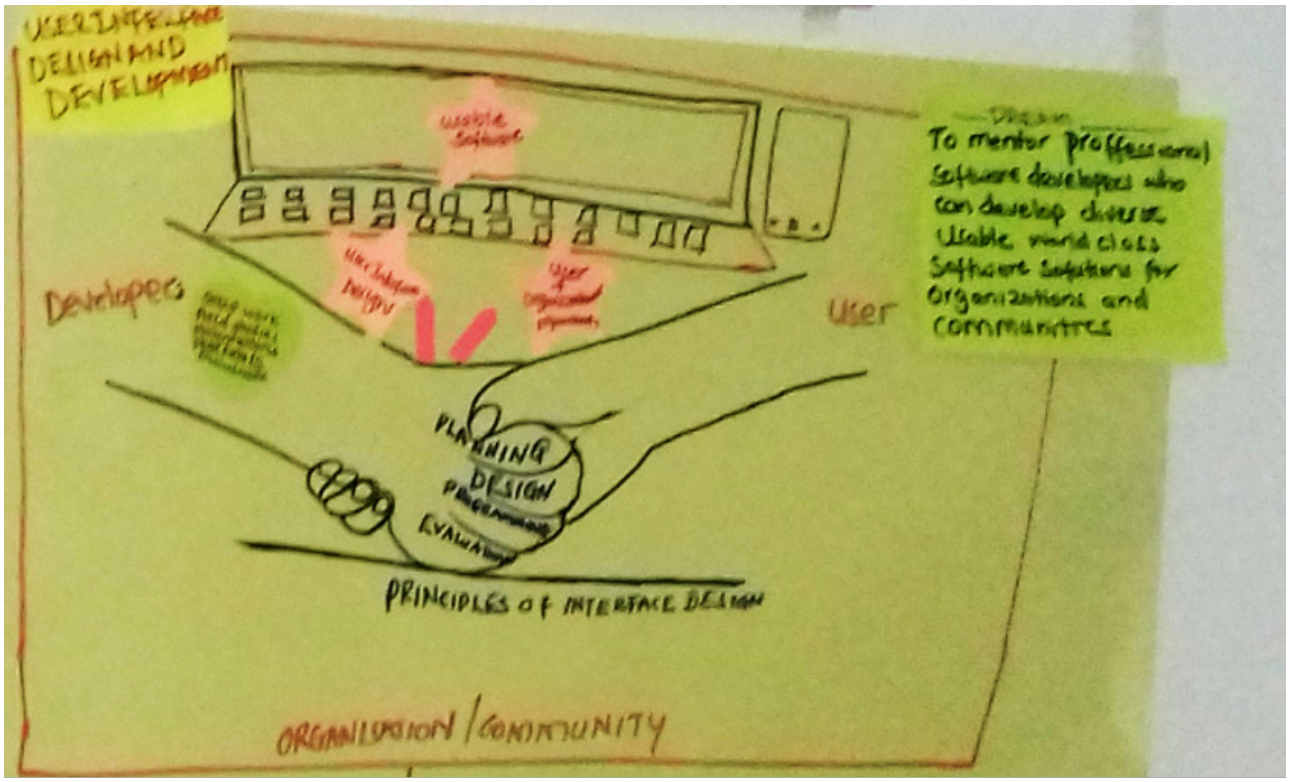
Source: John Axen (Simon Fraser University)

EXAMPLE 3: V2 CONCEPT MAP FOR "INTRODUCTION TO PRODUCING" COURSE (MOP4 104)



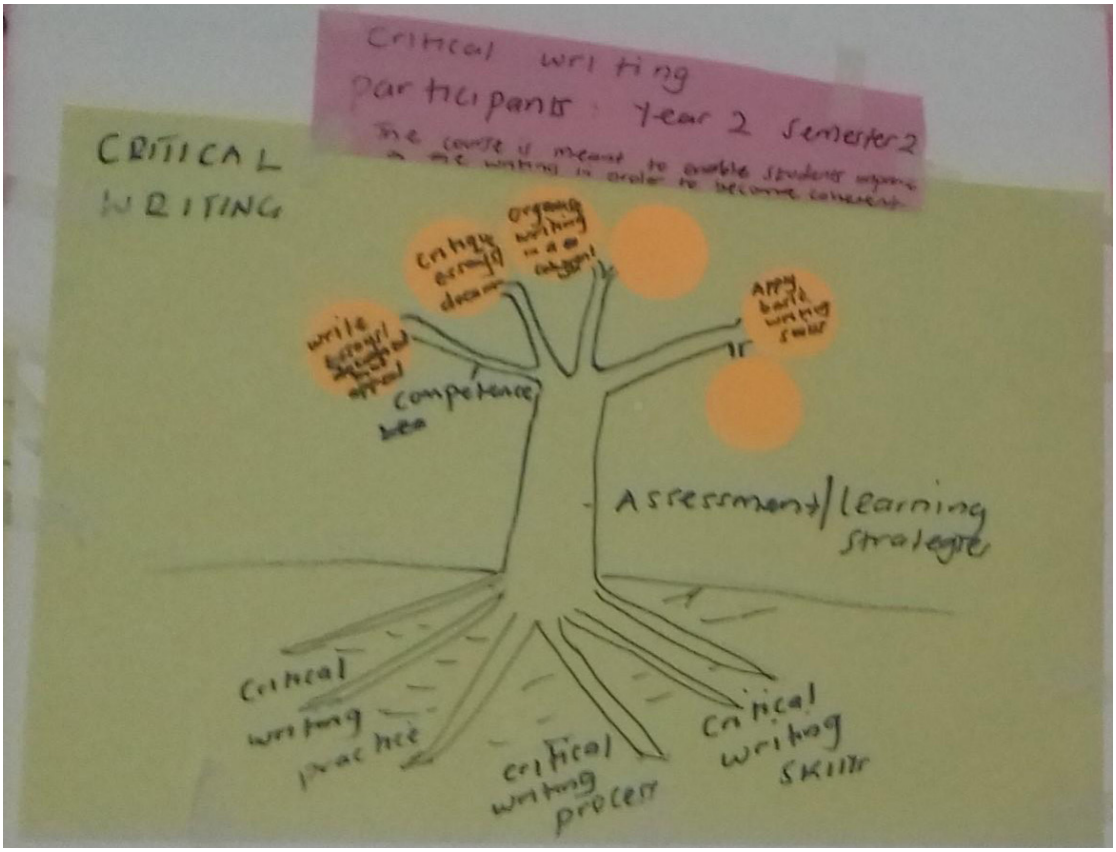
Source: Ki Wight (Simon Fraser University)

EXAMPLE 4: CONCEPT MAP FOR "USER INTERFACE DESIGN AND DEVELOPMENT" COURSE (CSC 2201)



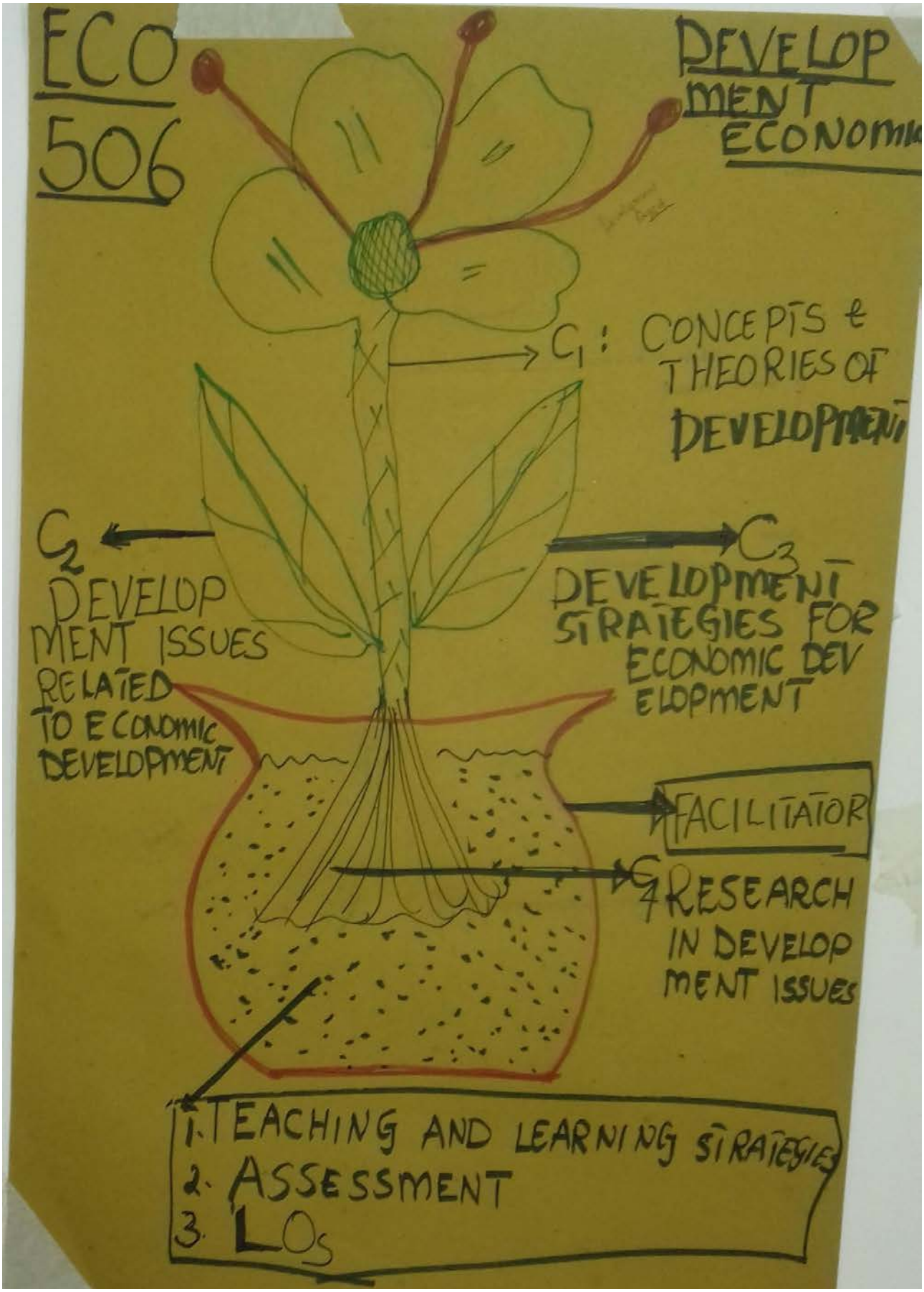
Source: Babirye Nanteza (Uganda Martyrs University)

EXAMPLE 5: V1 CONCEPT MAP FOR "CRITICAL WRITING" COURSE (CLS 2201)



Source: Catherine Akurut (Uganda Martyrs University)

EXAMPLE 6: V1 CONCEPT MAP FOR "DEVELOPMENT ECONOMICS" COURSE (ECO 506)

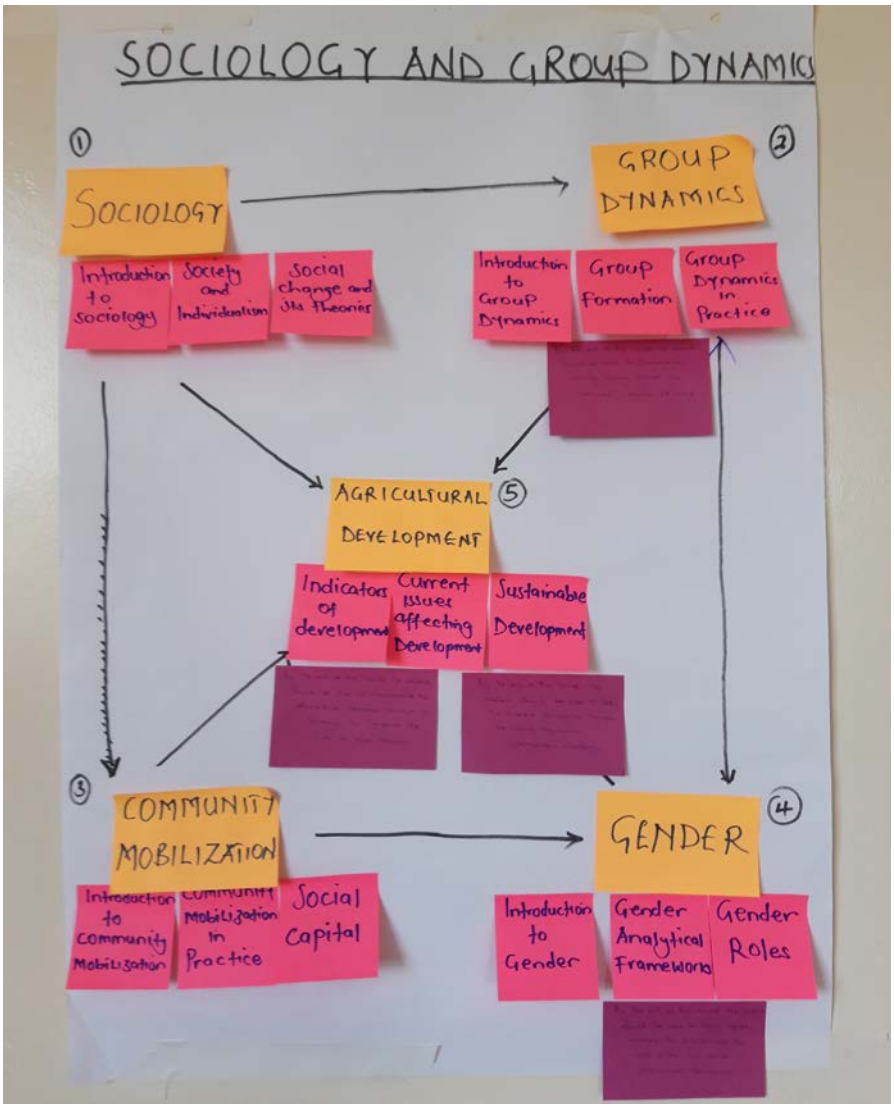


Source: Jennifer Sesabo (Mzumbe University)

EXAMPLE 7: CONCEPT MAP FOR "INTRODUCTION TO BUSINESS AND BUSINESS ENVIRONMENT" COURSE (MG 122)

Source: Mohammed Kaluse (University of Dodoma)

EXAMPLE 8: CONCEPT MAP FOR "SOCIOLOGY AND GROUP DYNAMICS" COURSE (ARD 3101)



Source: Irine Akite (Gulu University)

REFERENCES

Mezirow, J. 1991. *Transformative dimensions of adult learning* (1st ed.). San Francisco: Jossey-Bass.

DAY 2: LEARNING OUTCOMES

REFLECTION ON THE ASSIGNED COMPULSORY READING

How People Learn: Brain, Mind, Experience, and School: Expanded Edition – Chapter 1: 'Learning: from Speculation to Science'

Note your reflections to the following questions in the table:

- How did the structure of the activity help you to develop a deeper understanding of the text?
- How easy was it for you to find points for any of the 4Cs (Connections, Challenges, Concepts and Changes)? Why?
- What came up in the discussion that surprised you?

DAY 2 VIDEOS ON DEMONSTRATING THE PROCESS OF DEVELOPING LEARNING OUTCOMES

The following videos feature two different facilitators of learning who describe what they did on Day 2 of the Course Redesign workshop. The two demonstrators talk about the process of aligning their course learning outcomes to the concepts in their concept maps and the drafting of SMART(TT) learning outcomes that have a **verb**, **content**, and **context**.

Video 2.1a – www.inasp.info/CR21a

Video 2.1b – www.inasp.info/CR21b

SUGGESTED STEPS FOR CREATING YOUR COURSE LEARNING OUTCOMES

Learning outcomes (LOs) refer to what the student has to learn rather than what the teacher (or in our case the facilitator of learning) has to teach. It clarifies what the student should be able to do/become after learning that couldn't be performed previously.

1. Plan for **at least one** LO **for every concept** in your course. The required total number of outcomes per course tend to vary with the requirements of different university commissions. Note: too many learning outcomes may be difficult to assess.
2. Use very **specific** and **active language** with verbs that make expectations clear. Where possible, avoid terms such as "understand", "demonstrate", or "discuss" that can be interpreted in many ways.

   VAGUE OUTCOME

   By the end of the course, I expect students to:

   - Understand different sets of economic problems and their impacts on policy prescription

   MORE PRECISE OUTCOME

   By the end of the course, students will be able to:

   - Critically analyse the impact of different economic problems on the implementation of policies in the country

   VAGUE OUTCOME

   By the end of this course, students will be able to

   - Use secondary critical material effectively and to think independently

   MORE PRECISE OUTCOME

   By the end of this course, students will be able to

   - Evaluate the theoretical and methodological foundations of secondary critical material and employ this evaluation to defend their position on the topic

3. **Focus on the learner:** rather than explaining what the facilitator of learning will do in the course, good learning outcomes describe the knowledge or skills that the student will employ, and help the learner understand why that knowledge and those skills are useful and valuable to their personal, professional, and academic future.
4. Be **realistic**, not aspirational: all passing students should be able to achieve the knowledge or skill described by the learning outcome at the conclusion of the course. In this way, learning outcomes establish standards for the course.
5. Focus on the **application** and **integration** of acquired knowledge and skills: good learning outcomes reflect and indicate the ways in which the described knowledge and skills may be used by the learner now and in the future.
6. Offer a **timeline** for completion of the desired learning.
7. Refer to one of the taxonomies for learning domains on the following pages to help you with articulating the level and specific behaviour your students are to develop.
8. Indicate useful **assessment methods** or tasks and the specific elements that will be assessed: good learning outcomes prepare students for assessment and help them feel engaged in and empowered by the assessment and evaluation process.
9. Think about how you will measure the outcomes and whether your assessment methods or tasks will thoroughly determine whether the learning outcomes have been met. **It is more important to link assessments to your outcomes than to create a measurement tool for each outcome.**
10. Consult with colleagues – and students!
11. Be **flexible**: while individual outcomes should be specific, facilitators of learning should feel comfortable adding, removing, or adjusting learning outcomes over the length of a course if initial outcomes prove to be inadequate.

Adapted from University of Toronto's Centre for Teaching Support & Innovation (n.d.).

SMART (TT) LEARNING OUTCOMES

When writing your outcomes, keep in mind...

SPEAK TO THE LEARNER: learning outcomes should address what the learner will know or be able to do/become at the completion of the course.

By the end of the course the learner/student **will** be able to...

Note the words **will be**... are preferred to **should be**...

MEASURABLE: learning outcomes must indicate how learning will be assessed. Use **verbs** and avoid words such as *understand, think, comprehend* and *know*, which are not assessable and are difficult to interpret. See the verbs under: knowing, understanding and thinking in the "Verbs associated with different levels of the cognitive domain" section of this handbook.

APPLICABLE: learning outcomes should emphasise ways in which the learner is likely to use the knowledge or skills gained. A learning outcome should have the **content** (knowledge or skill).

REALISTIC: all learners who complete the activity or course satisfactorily should be able to demonstrate the knowledge or skills addressed in the outcome. Take into consideration the **context**, available resources such as the assigned time to the course, and other situational factors.

TIME-BOUND: the learning outcome should set a deadline by which the knowledge or skills should be acquired; state "By the end of the course...".

TRANSPARENT: learning outcomes should be easily understood by the learner. Use simple language – the students will be coming across the learning outcomes for the first time.

TRANSFERABLE: learning outcomes should address knowledge and skills that will be used by the learner in a wide variety of contexts.

The SMART(TT) method of goal setting is adapted from Blanchard & Johnson (1981).

GENDER-RESPONSIVE PEDAGOGY: LEARNING OUTCOMES – QUESTIONS TO ASK YOURSELF

Gender can be incorporated into learning outcomes for any subject and it is important that the gender dimension skill is extended to all areas and oriented towards developing critical thinking and problem-solving skills as well as a social commitment to plurality and diversity.

WHAT QUESTIONS COULD YOU ASK YOURSELF TO INFORM THE GENDER RESPONSIVENESS OF YOUR LEARNING OUTCOMES?

1. Is there a general, non-subject specific, learning outcome that would be relevant for my course?

   Examples of general, non-subject-specific gender learning outcomes could be:

   a) Students will be able to carry out research with a gender perspective:

      - At the end of this course, you will be able to distinguish the effects of the variables sex and gender in theoretical and empirical analyses related to the discipline.
      - At the end of this course, you will be able to produce, collect and interpret empirical data relevant to the discipline in a gender-responsive manner.
      - At the end of this course, you will be able to create and use qualitative and quantitative indicators to gain a better understanding of gender inequality and the different needs, circumstances, values and aspirations of women and men in relation to the discipline.

   b) At the end of this course, you will be able to identify the intersection of gender inequality with other dimensions of inequality (age, class, race, ableness etc.)

   c) At the end of this course, you will be able to identify and analyse the structural causes and effects of violence against women and other types of gender-based violence.

   d) At the end of this course, you will be able to identify and use the contributions of women and gender studies in the subject.

   e) At the end of this course, you will be able to problematise gender roles, stereotypes and biases in the subject and the exercise of its related profession.

   f) At the end of this course, you will be able to use gender-responsive language relevant for the subject and its related profession.

2. Could I incorporate gender into some of the subject-specific learning outcomes for my course?

   Examples of subject-specific gender learning outcomes:

   a) **Agriculture:** At the end of this course, you will be able to analyse and take into account the role of women when developing markets selling food products.

   b) **Art and cultural heritage:** At the end of this course, you will be able to analyse gender differences and inequality in the use and management of historical and artistic heritage.

   c) **Communications:** At the end of this course, you will be able to propose methods for preventing the transmission and reproduction of gender stereotypes through information and communication technologies.

   d) **Economics:** At the end of this course, you will be able to analyse macroeconomic policies to include domestic and care work.

   e) **Health:** At the end of this course, you will be able to analyse the individual and collective gendered impact of the healthcare system.

For further detailed examples of gender-responsive learning outcomes relevant for various disciplines see AQU Catalunya (2018).

BLOOM'S TAXONOMY (AND REVISED VERSIONS)

Bloom's revised taxonomy for the cognitive domain

The development of instructional objectives as a means to support purposeful development of instructional content benefited a great deal from Benjamin Bloom, when in 1956 he published a taxonomy of intellectual behaviours. For the next 40 years, the application of his work found its way into many instructional disciplines. A key milestone came in 2000, when Anderson and Krathwohl revisited the taxonomy to make the model more appropriate to current audiences. In 2002, Barbara Clark, a researcher in educational practices of the gifted, adapted the revised taxonomy into a roughly circular graphic as shown below. More detail on this graphic can be found in the 'Assessment methods' section of this handbook.

Adapted from: Anderson, Krathwohl, et al. (2000).

Verbs associated with different levels of the cognitive domain

KNOWING

Define	**Label**	**List**	**Memorise**
Relate	**Distinguish**	**Identify**	**Recognise**
Recall			

UNDERSTANDING

Classify	**Explain**	**Identify**	**Interpret**
Review	**Report**	**Illustrate**	**Restate**
Organise	**Estimate**	**Apply**	**Demonstrate**
Generalise			

THINKING

Analyse	**Criticise**	**Contrast**	**Evaluate**
Propose	**Rate**	**Solve**	**Synthesise**
Categorise	**Appraise**	**Assess**	**Judge**
Justify	**Argue**	**Formulate**	**Originate**
Produce	**Deduce**	**Compare**	**Contrast**
Develop			

Adapted from: LaSere Erickson & Strommer (1991).

BLOOM'S TAXONOMY: COGNITIVE DOMAIN (THINKING, KNOWLEDGE)

Knowledge
Definition: Remembers previously learned material.

- cite
- define
- describe
- numerate
- identify
- indicate
- label
- list
- match
- name
- outline
- point
- recall
- recognize
- reproduce
- select
- state
- tabulate
- write

Comprehension
Definition: Grasps the meaning of material (lowest level of understanding).

- approximate
- articulate
- associate
- characterize
- clarify
- classify
- compare
- compute
- contrast
- convert
- differentiate
- describe
- discuss
- estimate
- explain
- give example
- interpret
- locate
- paraphrase
- predict
- review
- summarize

Application
Definition: Uses learning in a new and concrete situation (higher level understanding).

- adapt
- apply
- assign
- calculate
- classify
- complete
- construct
- demonstrate
- determine
- discover
- employ
- explore
- expose
- factor
- illustrate
- investigate
- manipulate
- modify
- predict
- prepare
- produce
- relate
- simulate
- solve

Analysis
Definition: Understands both the content and structure of material.

- analyze
- break down
- categorize
- compare
- contrast
- correlate
- detect
- differentiate
- discriminate
- examine
- figure out
- group
- manage
- maximize
- minimize
- optimize
- order
- outline
- select
- separate
- train
- transform

Synthesis
Definition: Formulates new structures from existing knowledge and skills.

- arrange
- assemble
- budget
- code
- combine
- compile
- construct
- create
- cultivate
- design
- develop
- enhance
- explain
- facilitate
- formulate
- generalize
- generate
- improve
- integrate
- plan
- prepare
- produce
- propose
- revise
- specify

Evaluation
Definition: Judges the value of material for a given purpose.

- assess
- conclude
- counsel
- criticize
- critique
- defend
- estimate
- evaluate
- grade
- interpret
- judge
- justify
- measure
- predict
- prescribe
- rank
- rate
- recommend
- release
- select
- support
- test
- validate
- verify

SIMPSON'S TAXONOMY: PSYCHOMOTOR DOMAIN (DOING, SKILLS)

Perception
Definition: Senses cues that guide motor activity

- detect
- hear
- listen
- observe
- perceive
- identify
- recognize
- see
- sense
- smell
- taste
- view
- watch

Set
Definition: Is mentally, emotionally and physically ready to act.

- achieve posture
- assume a body stance
- establish a body position
- place hands, arms, etc.
- sit
- stand
- station
- observe
- organize
- respond

Guided Response
Definition: Imitates and practices skills often in discrete steps.

- copy
- imitate
- manipulate with guidance
- operate under supervision
- practice
- repeat
- try
- reproduce
- match

Mechanism
Definition: Performs acts with increasing efficiency, confidence, and proficiency.

- complete with confidence
- conduct
- demonstrate
- execute
- improve efficiency
- increase speed
- make
- show dexterity
- perform
- assemble
- manipulate
- set up

Complete Overt response
Definition: Performs automatically.

- act habitually
- advance with assurance
- control
- direct
- excel
- guide
- maintain efficiency
- manage
- master
- organize
- perfect
- perform automatically
- proceed
- coordinate
- integrate
- combine
- regulate
- refine

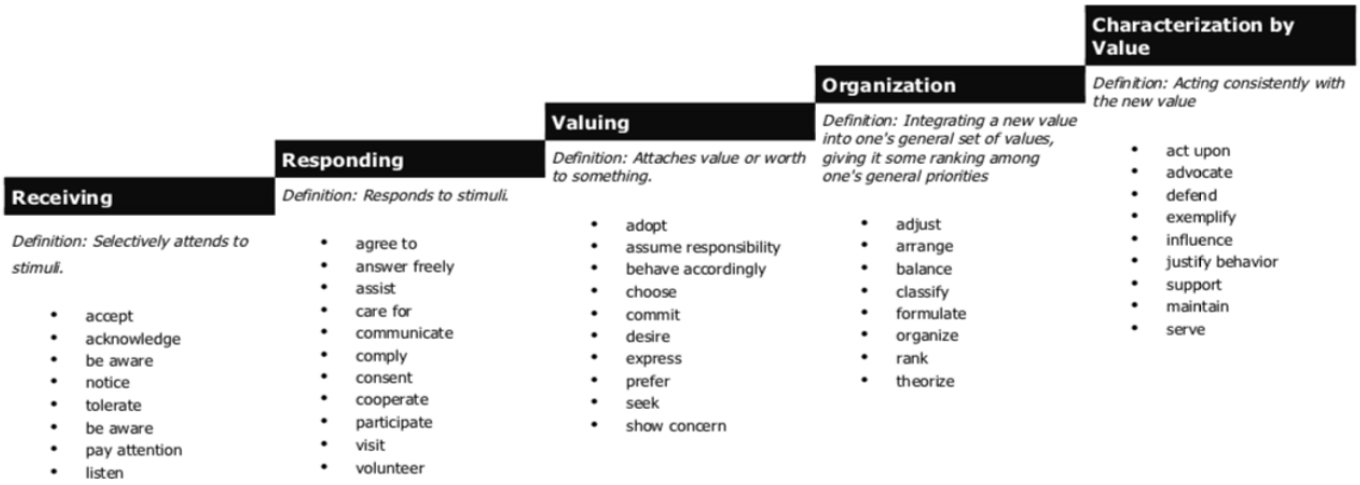
Adaptation
Definition: Adapts skill sets to meet a problem situation.

- adapt
- reorganize
- alter
- revise
- changes
- adjust
- standardize

Origination
Definition: Creates new patterns for specific situations.

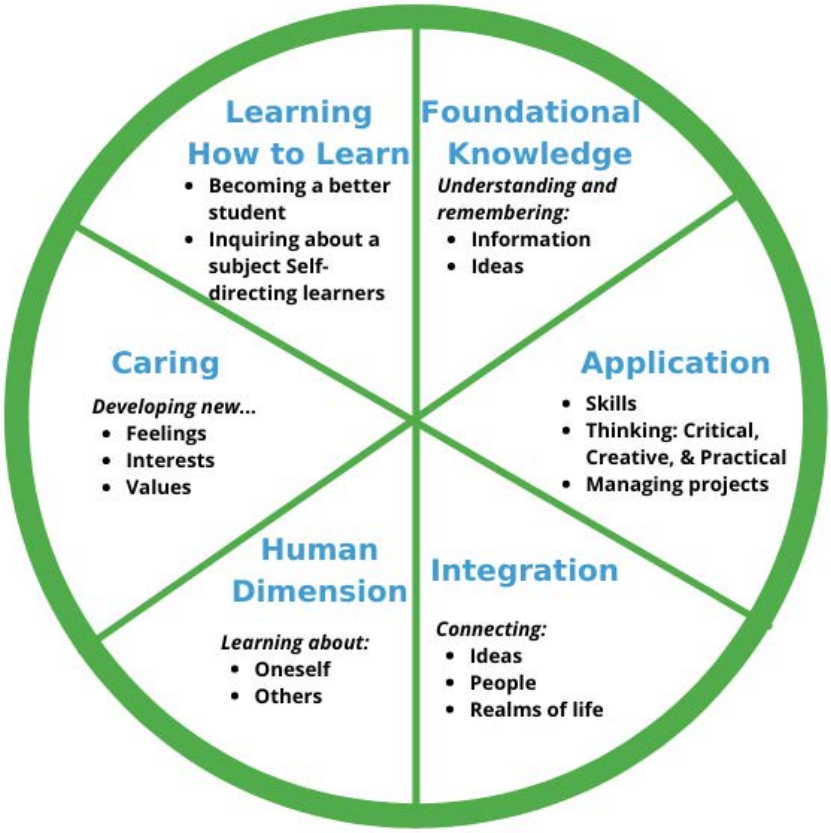
- designs
- originate
- combine
- compose
- construct
- formulate
- develop

KRATHWOHL-BLOOM'S TAXONOMY: AFFECTIVE DOMAIN (FEELINGS, ATTITUDES)



TAXONOMY OF SIGNIFICANT LEARNING

The Taxonomy of Significant Learning (TSL) developed by Dee Fink, aims to create meaningful learning experiences in higher education. It is a taxonomy that describes various ways in which learning can be significant. Fink defines significant learning as learning that lasts. The taxonomy consists of six interwoven learning dimensions (or kinds of learning): Foundational Knowledge, Application, Integration, Human Dimension, Caring, and Learning How to Learn. Each dimension encompasses a unique perspective on the learning process, and when collectively applied to curriculum and course redesign, significant learning occurs (Fink, 2013). The taxonomy promotes a shift from a content-centred paradigm (which focuses solely on cognitive learning) to a learning-centred paradigm (which focuses on a wider range of learning that results in some kind of lasting change in the learner).



TAXONOMY OF SIGNIFICANT LEARNING: DIMENSIONS OF LEARNING

CATEGORIES	DEFINITIONS/DESCRIPTIONS	VERBS (Note: all verbs must be 'measureable' performance verbs)		
Knowledge	Learners will understand and remember key concepts, terms, relationships, facts, etc. Describe what learners will be able to do with information.	Choose Find List Outline Select Explain Paraphrase	Define Identify Match Recall State Generalize	Describe Label Name Recite Discriminate Infer
Application	Learners will perform/'do' important tasks. Describe the kinds of activities and tasks learners will be able to perform based on the information they have aquired.	Analyze Compute Defend Justify Organise Transfer Distinguish Outline	Assess Design Demonstrate Manage Prepare Use Illustrate Solve	Calculate Critique Develop Modify Solve Diagram Infer
Integration	Learners will identify/consider/describe the relationship between 'X' and 'Y'. Describes the kinds ofactivities and tasks learners will be able to perform when they synthesize, link to, or relate specific information to other information.	Identify (interactions, similarities between) Compare Organize Step Support	Contrast Align Relate	Integrate Balance Repeat
Human dimension	Self: Learners will better understand themselves Others: Learners will be able to interact positively and productively with others. Describes the kinds of activities learners will be able to perform when they apply the information to themselves and to their interactions with others.	Interact Debate Help Participate Discuss Attend Hear Notice	Convince Display Applaud Organize Participate Control Listen Share	Act Express Follow Argue Volunteer Discern Look
Caring	Students will care more deeply about this subject or issues related to this subject. Describes the kinds of activities students will be able to perform when they connect the information to themselves and their personal lives in a meaningful way.	Value Display Participate Volunteer Notice	Express Manage Play Discern Share	Act Comply Practice Notice Support
Learning how to learn	Students will develop the ability to learn better (more efficiently and effectively), both in this course and in life in general. Describes the kinds of activities students will be able to perform in order to continue to learn more about this topic in the future.	Develop Decide	Create Define	Formulate Select

Source: Adapted from Dee Fink & Associates online course on 'Designing Courses for Significant Learning'.

TSL (SOFT) SKILLS MATRIX: FOUNDATIONAL KNOWLEDGE, APPLICATION AND INTEGRATION DIMENSIONS (1)

CATEGORIES	FOUNDATIONAL KNOWLEDGE	APPLICATION	INTEGRATION
Key questions to guide prioritisation of soft skills	What key information (e.g. facts, terms, formulae, concepts, principles, relationships, etc.) is/ are important for students to understand and remember in the future? What key ideas (or perspectives) are important for students to understand in this course?	What kinds of thinking are important for students to learn? • Critical thinking, in which students analyse and evaluate • Creative thinking, in which students imagine and create • Ill-structured-problem solving and making decisions	What connections (similarities and interactions) should students recognise and make ... • Among ideas within this course? • Among material in this course and the students' own personal, social, and/or work life?
Soft skills (skills/ capabilities/ dispositions) Note: with the exception of foundational knowledge	**Building a knowledge base** e.g. • Ideas students will understand (e.g. theories, concepts, approaches, perspectives, and other broad themes in the course) • Information to apply in ill-structured-problem solving (e.g. facts, and other kinds of core knowledge)	**Selecting appropriate information** • Ability to gather information • Ability to identify pertinent information • Ability to determine whether (or not) information is relevant to a situation **Evaluating and interpreting information** • Ability to interpret information • Ability to recognise potential sources of bias • Ability to recognise the hidden/unstated assumptions and values underlying information • Ability to judge credibility and reliability of a source • Ability to identify errors in presented information • Ability to recognise when there is a lack of information • Ability to recognise whether (or not) information can be generalised and/or applied to other situations **Analysing the claims/arguments of others** • Ability to evaluate arguments • Challenging others' and one's own assumptions • Ability to exercise judgement • Acknowledging multiple perspectives and that these should be supported by reasons	**Interconnected thinking** • Ability to make connections between ideas, perspectives and issues within the course • Ability to draw on local-global levels and perspectives **Applying information to personal, social and/ or work life** • Translating theory into practical solutions • Ability to apply knowledge to solve day to day challenges • Ability to identify problems • Ability to identify salient features contributing to a problem • Ability to view a problematic situation from different perspectives • Ability to judge and evaluate different options and consequences **Networking** • Ability to map a network of contacts • Ability to use network to make new contacts • Ability to identify useful skills, knowledge, experience from network

TSL (SOFT) SKILLS MATRIX: FOUNDATIONAL KNOWLEDGE, APPLICATION AND INTEGRATION DIMENSIONS (2)

CATEGORIES	FOUNDATIONAL KNOWLEDGE	APPLICATION	INTEGRATION
Key questions to guide prioritisation of soft skills	What key information (e.g. facts, terms, formulae, concepts, principles, relationships, etc.) is/ are important for students to understand and remember in the future? What key ideas (or perspectives) are important for students to understand in this course?	What kinds of thinking are important for students to learn? • Critical thinking, in which students analyse and evaluate • Creative thinking, in which students imagine and create • Ill-structured-problem solving and making decisions	What connections (similarities and interactions) should students recognise and make ... • Among ideas within this course? • Among material in this course and the students' own personal, social, and/or work life?
Soft skills (skills/ capabilities/ dispositions) Note: with the exception of foundational knowledge		**Cont.** **Making sound arguments and decisions** • Ability to synthesise information • Ability to apply methods of logical inquiry and reasoning • Ability to draw on valid evidence when making a decision, formulating an argument or drawing a conclusion • Ability to put to test the generalisation and conclusions at which one arrives **Creativity and innovation** • Desire to experiment • Ability to analyse, adapt and replicate latest thinking, ideas, tools, products and processes • Ability to apply skills, experience and practices to new contexts • Ability to recognise and take advantage of opportunities • Ability to anticipate and respond to change • Ability to question and challenge accepted practices	**Cont.** **Dealing with an uncertain future** • Ability to analyse past and future trends • Ability to make projections • Ability to adapt to changing circumstances • Awareness and in-depth understanding of existing power structures • Ability to envisage and make new social realities

TSL (SOFT) SKILLS MATRIX: HUMAN DIMENSION, CARING AND LEARNING HOW TO LEARN DIMENSIONS (1)

CATEGORIES	HUMAN DIMENSION	CARING	LEARNING HOW TO LEARN
Key questions to guide prioritisation of soft skills	What could, or should students learn about themselves? What could, or should students learn about understanding others and/or interacting with them in a positive and productive way?	What changes/values do you hope students will adopt related to this subject? Feelings? Interests? Ideas?	What would you like for students to learn about? • How to be good students in a course like this? • How to learn about this particular subject? • How to become a self-directed learner of this subject, i.e. having a learning agenda of what they need/want to learn, and a plan for learning it?
Soft skills (skills/ capabilities/ dispositions)	**Self-management** • Self-confidence • Resilience • Positivity • Determination • Sense of responsibility • Coping with risk, ambiguity and uncertainty **Teamwork** • Knowledge of how effective teams function • Knowledge of personal strengths and weaknesses to contribute to or manage within a team • Ability to evaluate personal contributions • Confidence to share ideas and voice opinions • Ability to reflect on strengths and weaknesses of a team **Interpersonal skills** • Ability to establish and agree shared goal/s • Ability to actively listen • Value the contributions of others • Ability to compromise • Ability to develop trust (e.g., through agreeing division of labour and delivering agreed tasks)	**Social awareness** • Embracing cultural and social diversity • Respect for difference • Ability and desire to anticipate, recognise and meet the needs of others • Professionalism to work in multicultural and global environments **Commitment to positive social change at the community level** • Desire to improve the lives of others and contribute to the community • Commitment to long term planning and solutions • Ability to act as a catalyst for positive action and change • Ability to consider consequences of own decisions and actions	**Self-direction** • Curiosity/inquisitiveness • Self-efficacy • Self-regulation • Self-motivation • Ability to develop more personalised approaches in learning • Desire to listen and learn from others' ideas and opinions • Perseverance **Reflective thinking** • Understanding of personal strengths and weaknesses • Ability to evaluate performance and use reflections to improve • Learning through experience

TSL (SOFT) SKILLS MATRIX: HUMAN DIMENSION, CARING AND LEARNING HOW TO LEARN DIMENSIONS (2)

CATEGORIES	HUMAN DIMENSION	CARING	LEARNING HOW TO LEARN
Key questions to guide prioritisation of soft skills	What could, or should students learn about themselves? What could, or should students learn about understanding others and/or interacting with them in a positive and productive way?	What changes/values do you hope students will adopt related to this subject? Feelings? Interests? Ideas?	What would you like for students to learn about? • How to be good students in a course like this? • How to learn about this particular subject? • How to become a self-directed learner of this subject, i.e. having a learning agenda of what they need/want to learn, and a plan for learning it?
Soft skills (skills/ capabilities/ dispositions)	**Leadership** • Ability to conceive of and articulate a vision • Ability to take initiative • Ability to inspire and motivate others with vision **Oral and written communication** • Ability to plan and deliver/produce a clear and logical oral presentation/written communication • Ability to organise thoughts and respond appropriately and with clarity to questions or instructions • Ability to exercise judgement regarding length, tone and content of an oral presentation or written communication • Ability to adapt communication effectively to various audiences • Knowing how to represent one's skills and abilities in a way that is attractive to employers or clients **Negotiation and managing conflict** • Ability to understand another person's point of view • Ability to understand and control personal and/or emotional responses • Confidence to discuss difficult topics • Ability to articulate differing views or perspectives		

Source: TESCEA partnership

SUGGESTED WAYS TO CRITIQUE YOUR LEARNING OUTCOMES

ONCE YOU HAVE WRITTEN YOUR LEARNING OUTCOMES (LO), ASK YOURSELF THESE QUESTIONS:

1. Do the LO describe what my course intends for students to know, think, do, or become?
2. Can my LO be measured and/or observed? Is learning being demonstrated? If you cannot answer "yes" to both these questions, revise your outcomes.
3. Do each of my LO have a verb, content and context?
4. Are my LO SMART (TT)? (Specific to the learner, Measurable, Applicable, Realistic, Time bound, Transparent and Transferable)
5. Do my LO incorporate a range of different kinds of learning i.e. foundational knowledge, application, integration, human dimension, caring, and learning how to learn, and promote the development of soft skills, for example in problem-solving, critical, and creative thinking that I have prioritised for my course?
6. Do my LO incorporate a gender perspective or focus on gender?
7. Are my LO specific and using active language so that my expectations are clear?
8. Are my LO focused on the learner, rather than explaining what I plan on doing in the course?
9. Can the LO be realistically achieved by all passing students?
10. Are they focused on students' actions, rather than the subject matter?
11. Can I create an activity to enable students to learn or practise the desired LO?
12. How will I know if the LO has been met? (starts you thinking about your assessment)
13. Who will be gathering evidence to confirm the LO has been met? (starts you thinking about your assessment, e.g. self-assessment, peer-assessment, facilitator of learning-assessed)
14. Will the LO provide me with evidence that will lead me to make a decision for continuous improvement?

Adapted from University of Wisconsin, La Crosse:
www.uwlax.edu/learningoutcomes/edreading/WritingStudentLearningOutcomes.pdf (page no longer available).

EXAMPLES OF COURSE LEARNING OUTCOMES

EXAMPLE 1: LEARNING OUTCOMES FOR THE COURSE 'BIOETHICS AND JURISPRUDENCE IN HEALTH'

Expected learning outcomes:

By the end of the bioethics and jurisprudence course, the learner will be able to:

1. **Analyse** the social, legal, economic, religious, political, cultural, environmental and other factors that influence health.
2. **Justify** decisions taken in resolving ethical dilemmas that occur within the healthcare context from an ethical and legal perspective.
3. Critically **evaluate** policy and legislative changes that enhance health and well-being.
4. **Apply** appropriately the ethical and legal principles relevant to interactions with patients and colleagues.
5. **Conduct** research and practice of medicine with integrity and in a professional way.

Source: Lecturer (Aga Khan University)

EXAMPLE 2: LEARNING OUTCOMES FOR THE COURSE 'ENVIRONMENTAL ECONOMICS'

Began with 17 specific learning outcomes...

Knowledge and comprehension:

1. **Identify and compare** economic and ecological perspectives on sustainability, including weak versus strong sustainability.
2. **Explain and depict** the economic concepts of market demand, supply, equilibrium and efficiency.
3. **Define, explain and depict** the concepts of market failures, including externalities, common pool resources and public goods.
4. **Define** the concept of ecosystem services and identify examples.
6. **Identify and compare** the different ways that humans may value the environment.
7. **Explain and compare** different methods of non-market valuation, including revealed and stated preference methods.
8. **Identify and explain** the major categories of environmental policies (voluntarism, subsidies, taxes, market-oriented regulation, standards and hybrid approaches).
9. **Explain and depict** the key economic and ecological challenges of managing renewable resources (e.g. open-access, maximum sustainable yield vs. economically efficient yield).

Application, analysis and evaluation:

10. **Identify and explain** the major critiques of the neoclassical economic perspective on the environment.
11. **Critique** the economic concept of "optimal pollution" and explain alternative approaches to setting environmental goals.
12. **Explain, apply and critique** the 'Coarse theorem'.
13. **Apply and critique** trade-off techniques to environmental problems, including cost-benefit analysis and multi-attribute trade-off analysis.
14. **Demonstrate** methods of accounting for risk and uncertainty in ecological economics.
15. **Evaluate** environmental policy according to criteria of effectiveness, efficiency, equity, simplicity and political acceptability.
16. **Explain and critique** economic and ecological perspectives regarding economic growth including GDP and Environmental Kuznet's Curve.
17. **Explain and critique** different perspectives on economic trade and the environment, including notions of 'gains from trade'.

Ended up with six broader outcomes…

Once you complete this course, you will be able to:

1. **Determine** the major modern environmental problems.
2. **Critically evaluate** the strengths and drawbacks of economic concepts of the environment.
3. **Apply** course concepts and tools to real-world environmental problems (e.g. media coverage).
4. **Challenge your own assumptions** regarding environmental and economic issues.
5. **Develop** collaborative, interdisciplinary learning and thinking skills.
6. **Act** at a level of respect and organisation expected in the workforce.

Source: Jonn Axen (Simon Fraser University)

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DAY 3: ASSESSMENT

FEEDBACK SCENARIOS FOR ROLE PLAYS

Imagine that you are giving feedback to:

A. A female student who has got a middle grade, but you feel lacks the confidence to fulfil her potential (she does not contribute verbally in class but her written work is excellent).

B. A male student who is overly confident and has not done enough work to fulfil his potential (he talks a lot in class, and often interrupts others, particularly women. Sometimes his written work is excellent, but at other times it seems rushed).

Use the space in the table to make notes as you prepare for and observe the role play, for example:

- If you are the facilitator of learning, you will need to prepare, in particular, what feedback will you give and how will you communicate it to the student?
- If you are the observer, you will need to share your reflections on what the facilitator of learning did well and what they could improve on at the end of the role play.
- If you are the student, you will need to play this role seriously and authentically. Think about how the male or female student would realistically respond in this situation and avoid getting too carried away in the role.

Continue overleaf

Use the space in the table to make notes as you prepare for and observe the role play, for example:

- If you are the facilitator of learning, you will need to prepare, in particular, what feedback will you give and how will you communicate it to the student?
- If you are the observer, you will need to share your reflections on what the facilitator of learning did well and what they could improve on at the end of the role play.
- If you are the student, you will need to play this role seriously and authentically. Think about how the male or female student would realistically respond in this situation and avoid getting too carried away in the role.

THINGS TO CONSIDER ABOUT ASSESSMENT

Four quotations on assessment

1. What we [assess] signals what we want students to learn (adapted from Fenwick & Parsons, 2000)
2. [Assessment] defines the actual curriculum from the students' point of view (adapted from Ramsden, 2003)
3. [Assessment] is the most significant prompt for learning (adapted from Boud, 1995)
4. Students can, with difficulty, escape from the effects of poor teaching; they cannot (by definition) escape the effects of poor [assessment] (adapted from Boud, 1995)

Commonly used assessment terms

When redesigning your course, some of the questions that you can ask yourself to enable your students to critically reflect and ultimately transform themselves and their world, are:

ASSESSMENT

- Measuring quality of product, process, progress.
- Either comparing individuals (norm-referenced) or comparing with a standard (criterion-referenced).

PURPOSES OF ASSESSMENT

- **Diagnostic** to identify students' current knowledge of a subject, skills, and capabilities.
  - Not graded: helps with planning what and how to teach.
  - Examples include pre-tests (content and abilities), self-assessments (skills and competencies), discussion board responses (content-specific prompts), and brief interviews.
- **Formative** for improvement and growth (both learning and teaching).
  - Often informal and not graded (e.g. debriefing, one-minute paper); students are not aware of it as assessment.
  - Feedback on practice.
  - Ongoing during learning process.
  - Often not, but sometimes, graded; students then aware of it (e.g. assessment of draft paper).
- **Summative** to judge (both learning and teaching).
  - Usually formal, both student and facilitator of learning are aware of it (e.g. final exam).
  - For decision making.
  - End of learning process.
  - Usually graded.

METHODS

- **Traditional** methods of assessment (e.g. essays) tend to:
  - Assess the products of learning (summative).
  - Assign traditional roles to facilitator of learning and student, i.e. the facilitator of learning assesses.
- **Alternative** methods of assessment (e.g., portfolios) tend to:
  - Focus on student thinking.
  - Assess students' ability to apply learning in authentic situations.
  - Assess progress or growth (formative and summative).
  - Often use sources other than the facilitator of the learning.

Characteristics of assessments

Valid: Measuring that which we should be trying to measure (learning outcome).

Reliable: Fairness/consistency (criteria-marking scheme/suggested solutions/rubric).

Transparent: This is the extent to which learners know where the goalposts are. Basically, the learning outcomes.

Authentic: It's about (on one level, at least) knowing that we're assessing the work of that specific learner, not other people's work.

Sources: Facilitator of learning, self, and peer.

Criteria: Characteristics being assessed.

Standards: Measure of range of quality for each criterion.

Weightings: Shows relative importance of each characteristic.

Reliability: Consistency across time, assessors.

SUMMATIVE AND FORMATIVE ASSESSMENT

	SUMMATIVE ASSESSMENT	FORMATIVE ASSESSMENT/ ASSESSMENT FOR LEARNING
What does it normally consist of?	Formal tests, oral/written, exams	Routine learning, natural e.g. mind maps, blog entries, critical reflective questions
When does it happen?	End of unit, chapter, learning session, term, year	All the time
What role does the student have?	Passive, forced to take part	Active, taking the lead, making choices and taking risks
Under what conditions does it normally occur?	Silence, individual, exam conditions, highly disciplined	Ordinary learning conditions, collaborative, messy and noisy at times but empowering
What is its purpose/function?	Selection, discrimination, assess impact of learning, prove efficiency/effectiveness of the facilitator of learning, university and teaching	Learning. Students identify strengths and weaknesses, target areas that need work, facilitators of learning know which content/concepts are proving difficult for students
How is it reported?	Reports, statistics, grades, marks	Ongoing to peers, self and facilitator of learning
Who is the audience for the results?	Facilitators of learning, heads, students, Department of Education, governors	Students and facilitators of learning
How does it affect the student and their performance/ motivation?	Motivates competitive spirit; promotes performance behaviour not learning behaviour. Can reinforce failure.	Highly motivating and designed to promote success, building on previous learning, builds confidence
How does it affect the teaching and learning?	Some feedback to the facilitator of learning; opportunities to modify curriculum	Creates and promotes curiosity and desire to learn
What conclusions can you draw?	Can be less valuable to the student than to other audiences	Potentially much more valuable to the student than summative

EXAMPLES OF FORMATIVE ASSESSMENT

Below are some examples of formative assessment, pitched more at the learning-session level than at the broader course-level. How and when would you apply these examples of formative assessment in your own course?

EXIT/ADMIT TICKETS

- Exit tickets is a type of formative assessment at the end of the learning session, where students write on a piece of paper or card for one minute (a one-minute paper) on the day's learning, and deposit them as they leave the classroom. You can also use exit tickets to recap the session.
- As a facilitator of learning you can also ask students to respond to questions on the lesson taught, written on a piece of paper or card, and hand them in at the beginning of the next lesson (admit tickets). You can also use admit tickets to recap the previous session.

ONE-MINUTE PAPERS

You can also ask students to write about all kinds of different topics. The below are just suggestions, so feel free to make up your own:

- Main point of the lesson.
- Most surprising idea learnt today.
- Questions not answered.
- Most confusing area of topic/ session.
- One high-order questions from the concept/topic that might appear on the next test.

CRITICAL REFLECTIVE QUESTIONS

Brookfield (1995), states that critical reflection is a consistent focus on unearthing and scrutinising assumptions that are detrimental to students' learning. Through the use of reflections, most students see things differently and develop a questioning mind.

Types and examples of critical reflective questions

CONTENT-REFLECTION QUESTIONS

These are "What?" questions that help to raise learner awareness of assumptions they hold. Be careful not to ask questions that only require factual knowledge and that do not encourage critical reflective thought.

Examples:

- What do you know or believe about yourself?
- What do you see as your skills in this area?
- What would you like to improve?
- What do you not like about this concept?
- What helped you to learn this concept?

PROCESS-REFLECTION QUESTIONS

These are the "How?" questions that help learners to reflect on how they came to hold certain ideas and beliefs.

Examples:

- How did you come to this knowledge?
- How did you develop this value?
- How did you come to have this understanding of yourself?
- How do the words you use to describe that event influence the way you see it?

PREMISE-REFLECTION QUESTIONS

These are the "Why?" questions that help learners to focus on deeper issues than those mentioned above. They help the learner to question the questions themselves.

Examples:

- Why should you care about this concept?
- Why is this concept relevant?
- Why are you questioning your skills in this area?
- Why does it matter what others say or think about this concept?
- Why do you want to know more about this issue?

Source: Christian Higher Education Faculty Development Network

TWO STARS AND A WISH (PEER ASSESSMENT)

This peer assessment is particularly useful for the writing process. Students are paired and asked to read each other's written work. The reader must identify two things the author did well (stars) and one specific suggestion for improvement (the wish).

THINK-INK- PAIR-SHARE

The facilitator of learning asks a question, and students think about the answer individually; they then note down (ink) their answers. Students are then placed in pairs to share their responses. Facilitators of learning are able to move around the classroom and listen to various discussions. It allows facilitators to gain valuable insight into levels of understanding.

3–2–1 COUNTDOWN

You can ask students all kinds of different questions. The below are just suggestions, so feel free to make up your own.

- Three things you didn't know before.
- Two things that surprised you about this topic.
- One thing you want to start doing with what you've learned.

Use of formative assessment examples in your course

Note your immediate thoughts to the following question in the table:

- How and when would you apply one or two of the formative assessment examples in your own course?

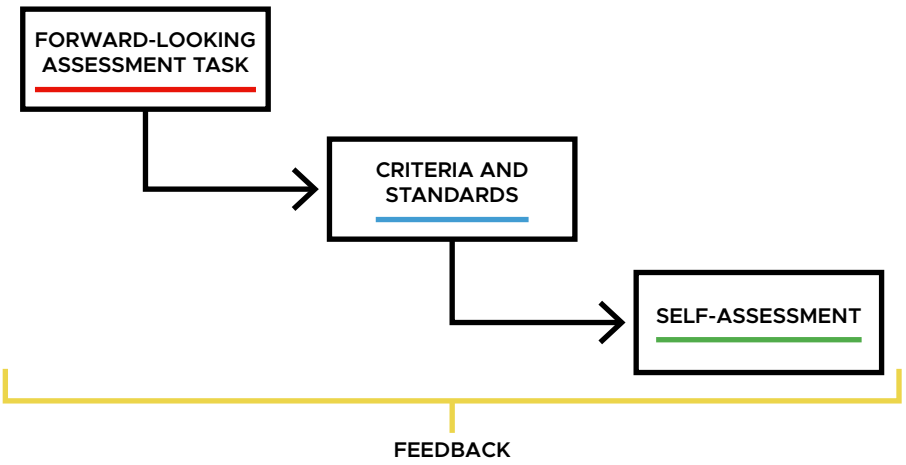
EDUCATIVE ASSESSMENT

Ensuring **powerful** assessment and feedback activities is a major challenge related to assessment. The concept of **educative assessment** can help you as facilitators of learning to achieve this. The concept suggests that we should design assessment activities that go beyond simply telling us whether students "got it" or not, by creating assessment activities that actually help students learn more. The figure below identifies the major components of educative assessment.

First, you need the right kind of **assessment task**. Instead of a "backward-looking" task in which the facilitator of learning looks back at what was studied in a unit and asks if students still understand and remember it, facilitators should "look forward" beyond the end of the course by creating realistic life or work situations (including any relevant gender aspects) and ask students to use what they have learned to address questions or make decisions related to those situations.

Second, for each of those tasks, the facilitator of learning (and the students) need to know whether they have done a good job or not. This is the function of a rubric. A **rubric** consists of criteria and standards. Criteria are the multiple yardsticks we use to measure the various desired qualities of a good product; standards are the measurements on those yardsticks that tell both facilitators and students whether the work of the student was as good as it should be.

MAJOR COMPONENTS OF EDUCATIVE ASSESSMENT



Third, you should give students the opportunity to render an assessment of their work themselves (**self-assessment**) – before they see the facilitator's assessment. Why is this so important? Because after they leave the course, they will be the first ones to assess their own work. So, they need to develop the ability to do this properly. And that requires practice and feedback.

And that leads us to the final component, **feedback**. Students need feedback that actually helps them learn, rather than feedback that just tells them: "What did you get?" Feedback that enhances student learning needs to be:

- **Frequent:** Two mid-terms and a final is not frequent.
- **Immediate:** Students are more likely to attend to and learn from feedback that is given immediately. Next best – the next learning session. A week or two later, and students will just look at what grade they got.
- **Discriminating:** Has a well-developed rubric. Students need to know what qualities make a particular piece of work "good". Therefore, they need to know what the criteria and standards are.
- **Given lovingly:** The feedback also needs to be communicated in a learner-friendly way, i.e. in a way that respects students' integrity and their readiness to learn.

Fink's acronym (2013, p.106) for this kind of feedback is FiDeLity.

If you put together a set of assessment activities that are appropriate for each of your desired learning outcomes and that meet the characteristics of educative assessment, you will have a good set of assessment activities.

EXAMPLES OF BACKWARD-LOOKING AND FORWARD-LOOKING ASSESSMENT TASKS

Example 1: Communication skills 1

BACKWARD-LOOKING ASSESSMENT TASK

In July 2020, I joined the "Communication skills 1" class. I have since been exposed to various dimensions of effective communication, such as: the basic communication process, intra-personal and inter-personal communication, integrity and emotional intelligence in relation to communication skills, models of communication and the use of verbal and non-verbal communication.

After reflecting on the unit, I will discuss **one dimension of effective communication** that touches me personally and present it in an essay of not more than 700 words, in three sections.

(Start your essay with the section) *All work should be typed: Font: Times New Roman; font size: 12; spacing 1.5.

- **The particular area**, well explained with **three** real-life, relevant examples explaining how it has touched me, my family or others.
- **What I have learned from this area of my choice**. Areas I would wish to adjust or improve on, in order to become a better communicator, a better student, better member of my family, a better friend, better member of society?
- **What would I tell other young undergraduate students** who may think that they do not need communication skills as a unit in their university studies?

FORWARD-LOOKING ASSESSMENT TASK

In this class, "Communication skills 1", you will be exposed to various dimensions of effective communication, such as; the basic communication process, intra-personal and inter-personal communication, integrity and emotional intelligence in relation to communication skills, models of communication and the use of verbal and non-verbal communication.

Required:

You will reflect on how each dimension touches you personally and present it in an essay of **not more than 700 words**, in three sections as stated below:

(Start your essay with the section) *All work should be typed: Font: Times New Roman; Font size: 12; Spacing 1.5.

- **For each dimension (particular area)**. You will explain, using **three real life** relevant examples, the impact the dimension has had on you (personal and professional level), your family and others.
- **What I have learned from this area of my choice.** How has this dimension made you become a better communicator, student, member of my family, friend, member of society? Which areas would you want to adjust or improve on?
- **What I would tell other young undergraduate students about Communications Skills 1.** How would you convince other students who may think that they do not need communication skills as a unit in their university studies?

Source: M. Kariuki, Strathmore University

Example 2: Geography course

BACKWARD-LOOKING ASSESSMENT TASK

Students studied different world regions each week and had an exam on either one region or several regions. After studying a given region, an easy backward-looking assessment was:

- List three distinctive characteristics of each country in this region.
- Or a multiple-choice format: "which of the following features most accurately characterises country x in this region?"

FORWARD-LOOKING ASSESSMENT TASK

Imagine that you are working for an international company that wants to establish a commercial presence in this region. The company sells a product that requires a modest per capita income for people to purchase it. The corporate executives understand that they will not realise significant income during the first five years or so but they want to establish a foothold in the region with hopes of financial success in the not-too-distant future.

The key success is being in a country that will have enough political stability to allow economic growth and sufficient other factors to support at least moderately high earning power among the general population.

The company has asked you to serve on an advisory board that recommends the country in which the company should open a new branch operation. Given that you have learned/are learning about the countries in this region, what country would you recommend as best meeting the needs of this company?

Source: Fink (2013), p.97.

CREATING ASSESSMENTS: RUBRICS

A rubric is a scoring guide used to evaluate students' performance and guide student learning. The rubric provides detailed description and feedback for identified performance. Assessment rubrics are used when it is not practical to draft a model answer because the responses are so complex or extensive that isolating a host of key elements is cumbersome. Each answer is judged for quality by a previously determined set of rating criteria (e.g. completeness, clarity, accuracy, integration). The assessor can be the facilitator of learning, a peer, or self.

There are two major types of scoring rubrics:

Holistic rubric has one global, holistic score for a product or behaviour.

Analytic rubric has separate, holistic scoring of specified characteristics of a product or behaviour.

Essential components of a rubric

Criteria describe the conditions that any performance must meet to be successful. Criteria should describe both strengths and errors (errors should be described particularly in lower levels of performance). The criteria for a class presentation could be for example: organisation, gender-responsive language, content, presentation/ delivery and participation.

Levels of performance/ indicators determine the degree of performance which has been met. **The levels** could be for example: exceeds expectations, meets expectations and below expectations.

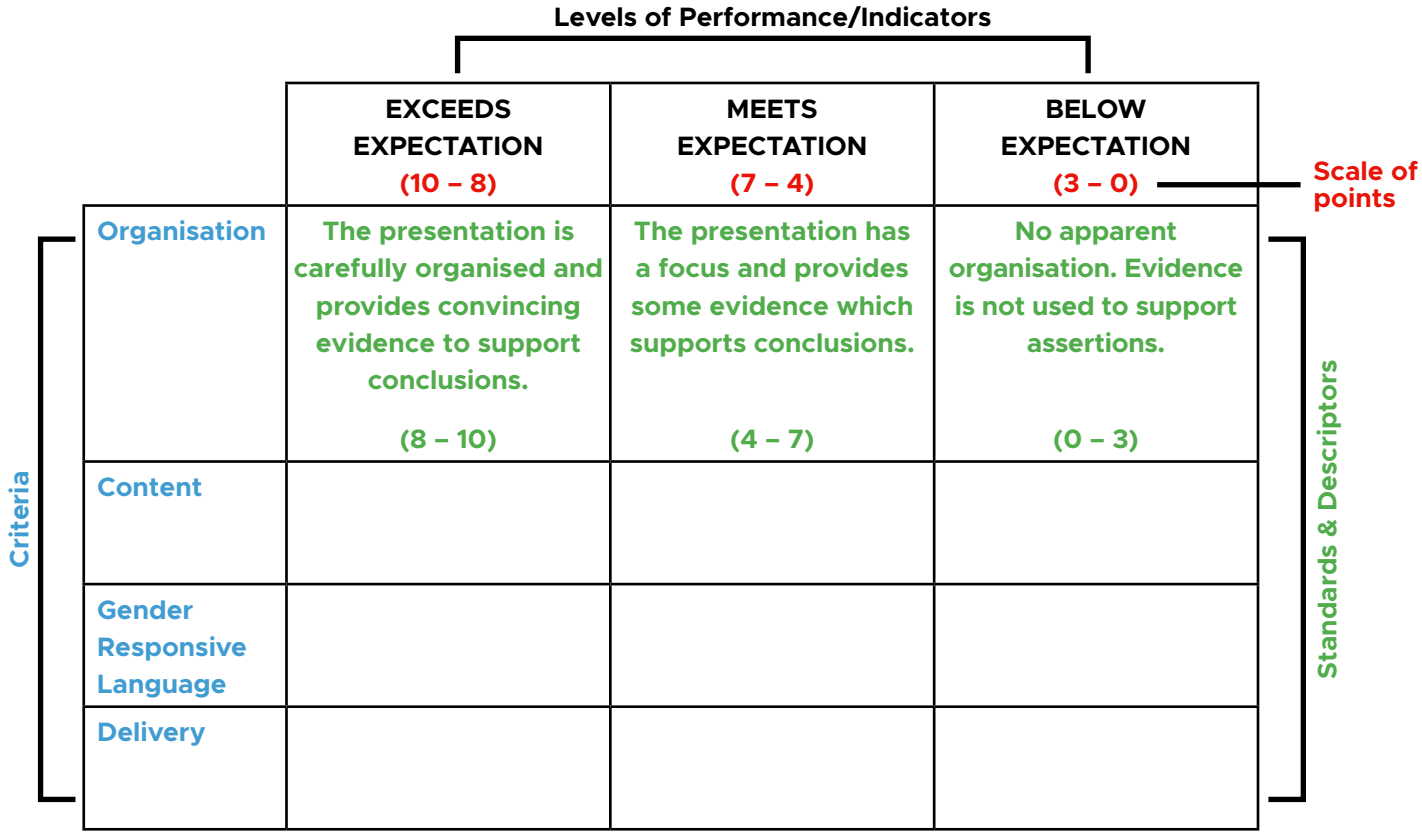
Standards specify how well criteria must be met. **Standards** on the content of a class presentation could be for example: accurate, complete and new insights.

Descriptors are for each level of performance and contain criteria and standards by which the performance will be judged. Indicators are often used in **descriptors** to provide examples or signs of performance in each level. Some examples are provided below:

- The content is accurate and complete. I gained new insights about the topic (7–10)
- The content is generally accurate, but incomplete. I learnt some isolated facts, but gained only a few new insights about the topic (4–6)
- The content is inaccurate or overly general. As a listener I learnt hardly anything or suspect I'm being misled (0–3)
- Note the reduction in quality from the higher descriptors to the lower ones and the use of similar words to describe the standards.

A scale of points on a continuum of quality, needs to be assigned to score each level of performance for a piece of work. High numbers are typically assigned to the best work. **Scale** as per the indicators could include for example: below expectation (0–3), meets expectation (4–6), exceeds expectation (8–10).

A LABELLED ANALYTIC RUBRIC GRID:



Suggested steps for creating an assessment rubric

To develop an assessment rubric, the following tasks need to be carried out:

1. For each learning outcome, identify specific observable attributes/standards that you want to see in a student's assignment or performance (e.g. in written assignments, students will use correct spelling and grammar; in oral presentations, students will speak clearly and audibly). You may also need to identify features of an attribute that you do not want to see (e.g. in written assignments, more than 10 spelling or grammar errors will lead to a deduction of marks).
2. For each attribute/standard, generate a list of specific features that describe or define it.
3. For each attribute/standard, define what constitutes above average, average, and below average performance, e.g. above average – no spelling or grammatical errors; average – fewer than 10 spelling or grammatical errors; below average – 10 or more spelling or grammatical errors.
4. For each attribute/standard, write a clear narrative description for each level of performance.
    a. Begin by writing the descriptions for the highest and lowest levels
    b. Then write descriptions for the intervening levels.
5. Decide whether attributes are equivalent in value. If they are not, determine a multiplying factor to be assigned to each attribute.
6. Test the rubric by using it to score student work. Decide if the final mark assigned according to the scoring key is appropriate.
7. Revise the rubric.
8. Collect samples of student work relevant to each attribute and level of performance for future reference.

N.B. For some assessments it is appropriate to ask students to discuss and decide on what constitutes each level of the various attributes and/or determine the attributes for assessment. For example, with a grade out of five for participation in a group project that will be peer-assessed, you could ask students what a one, a three, and a five would look like, and fill in two and four yourself.

APPLYING RUBRICS

Scoring rubrics are explicit schemes for classifying products or behaviours into categories that vary along a continuum. They can be used to classify virtually any product or behaviour, such as essays, research reports, portfolios, works of art, recitals, oral presentations, performances, and group activities. Judgments can be self-assessments by students, or judgments can be made by others, such as faculty, other students, fieldwork supervisors, and external reviewers. Rubrics can be used to provide formative feedback to students, to grade students, and/or to assess programmes.

RUBRICS HAVE MANY STRENGTHS:

- Complex products or behaviours can be examined efficiently.
- Developing a rubric helps to precisely define lecturers' expectations.
- Well-trained reviewers apply the same criteria and standards.
- Rubrics are criterion-referenced, rather than norm-referenced. Raters ask, "Did the student meet the criteria for level 5 of the rubric?" rather than "How well did this student do compared to other students?" This is more compatible with cooperative and collaborative learning environments than competitive grading schemes and is essential when using rubrics for programme assessment because you want to learn how well students have met your standards.
- Ratings can be done by students to assess their own work, or they can be done by others, e.g. peers, fieldwork supervisions, or faculty.

RUBRICS CAN BE USEFUL FOR GRADING, AS WELL AS ASSESSMENT.

Rubrics can be useful for grading, as well as assessment. For example, points can be assigned and used for grading, as shown in the examples below, and the categories can be used for assessment. Facilitators of learning who share an assessment rubric might assign points in different ways, depending on the nature of their courses, and they might decide to add more rows for course-specific criteria or comments. Notice how the rubric in example 1 (in the coming pages) allows facilitators of learning, who may not be experts on oral presentation skills, to give detailed formative feedback to students. This feedback describes presentation skills and indicates what they have to do to improve. Effective rubrics can help facilitators of learning reduce the time they spend grading and eliminate the need to repeatedly write the same comments to multiple students.

Suggestions for using rubrics in courses

1. Hand out the grading rubric with the assignment so students will know your expectations and how they'll be graded. This should help students master your learning outcomes by guiding their work in appropriate directions.
2. Use a rubric for grading student work and return the rubric with the grading on it. Lecturers save time writing extensive comments; they just circle or highlight relevant segments of the rubric. Some faculty include room for additional comments on the rubric page, either within each section or at the end.
3. Develop a rubric with your students for an assignment or group project. Students can then monitor themselves and their peers using agreed-upon criteria that they helped develop. Many lecturers find that students will create higher standards for themselves than faculty would impose on them.
4. Have students apply your rubric to some sample products before they create their own. Faculty report that students are quite accurate when doing this, and this process should help them evaluate their own products as they are being developed. The ability to evaluate, edit, and improve draft documents is an important skill.
5. Have students exchange paper drafts and give peer feedback using the rubric, then give students a few days before the final drafts are turned into you. You might also require that they turn in the draft and scored rubric with their final paper.
6. Have students self-assess their products using the grading rubric and hand in the self-assessment with the product; then lecturer and students can compare self-and lecturer-generated evaluations.

RUBRIC CATEGORY LABELS

- Unacceptable, developing, acceptable, exemplary
- Unacceptable, marginal, meets expectations, exceeds expectations
- Novice, developing, proficient, expert
- Beginner, developing, accomplished, mastery
- Below basic, basic, proficient, advanced

Source: AAC&U Board of Directors, Our Students Best 2004

Access this link to create some basic rubrics online: https://rubric-maker.com/

EXAMPLES OF RUBRICS

Example 1: Analytic rubric on class presentations

Grading Group Number: _____

	BELOW EXPECTATION	SATISFACTORY	EXEMPLARY
Organisation	No apparent organisation. Evidence is not used to support assertions **(0–3)**	The presentation has a focus and provides some evidence which supports conclusions **(4–7)**	The presentation is carefully organised and provides convincing evidence to support conclusions **(8–10)**
Content	The content is inaccurate or overly general. As a listener I learnt hardly anything or suspect I'm being misled **(0–5)**	The content is generally accurate, but incomplete. I learnt some isolated facts, but gained only a few new insights about the topic **(6–10)**	The content is accurate and complete. I gained new insights about the topic **(11–15)**
Gender responsive-ness of content	The content is not gender responsive and does not consider any gender aspects. As a listener I was exposed to gender bias and/or sexist examples **(0–5)**	The content is generally gender responsive and considers some gender aspects. I was not exposed to any direct gender bias and/or sexist examples **(6–10)**	The content is gender responsive and fully considers gender aspects. I found that gender stereotypes were directly challenged by the examples I was exposed to **(11–15)**
Delivery	The speaker appears anxious and uncomfortable, and reads notes, rather than speaks. I felt I was largely ignored **(0–5)**	The speaker is generally relaxed and comfortable, but too often relies on notes. I was sometimes ignored or misunderstood **(6–10)**	The speaker is relaxed and comfortable, speaks without undue reliance on notes, and interacts effectively with listeners **(11–15)**

GROUP	ORGANISATION	CONTENT	GENDER RESPONSIVENESS	DELIVERY	TOTAL
1					
2					
3					
Etc.					

Adapted from: Lydia Atieno (Strathmore University)

Example 2: Standards for speaking and writing assignment in 'Communication in Management II' (analytic rubric)

CRITERIA	EXCELLENT (4)	VERY GOOD (3)	AVERAGE (2)	BELOW AVERAGE (1)	UNSATIS-FACTORY (0)
General	Significantly exceeds assignment expectations. An employer would be delighted to send this document out since it is very well written, creative, error-free, certain to accomplish its task.	Exceeds assignment expectations. An employer would be comfortable sending out this document since it meets the needs of the audience and does not contain any serious errors.	Meets assignment expectations. An employer would be reluctant to send this document out without revision.	Fails to meet an important requirement of the assignment. An employer would not send this document out.	The writer(s) did not submit the assignment by the deadline.
Context (audience, purpose, genre & other constraints)	Conveys a superior sense of audience, purpose, genre, constraints & context.	Conveys a solid understanding of audience, purpose, constraints & context.	Audience and purpose orientation is somewhat inconsistent.	Requires the reader to work too hard to understand the document.	
Content	Engaging, persuasive, & complete; thoroughly researched & documented; no extraneous info.	Complete & somewhat engaging, thoroughly researched & documented, no extraneous info.	Does the job, but may not engage the audience in a particular way.	Contains incomplete info; not thoroughly researched. May contain extraneous info.	
Organisation	Very well developed, logically structured, and strongly coherent (headings, previews, transitions, etc.)	Very well developed & logically structured; may exhibit minor flaws that can easily be fixed; coherent.	Sufficiently developed & organised; some info. may be misplaced; minor problems with coherence.	Somewhat underdeveloped; organisation is somewhat difficult to follow; severe problems with coherence.	
Language use	Is free from mechanical & grammatical errors; uses sophisticated, concise, & particularly engaging language.	Is free from mechanical & grammatical errors; uses effective, specific, and concise language.	May contain minor mechanical & grammatical errors; may use some wordy, general, or imprecise language.	Contains a number of serious mechanical & grammatical errors that make it difficult for readers to follow the main idea.	
Visual Presentation	Design really enhances usability & readability.	Design enhances usability and readability.	Design does not inhibit usability or readability.	Design reduces the usability of the document.	

N.B. When each assignment is discussed, class discussion includes applying the criteria to the particular assignment (e.g. policy and procedures memo, proposal, progress report, formal written report, oral presentation, retrospective memo).

Source: L. McAlpine (Simon Fraser University.)

Example 3: Criteria for evaluating essays in English (holistic rubric)

	CRITERIA	COMMENTS ON INDIVIDUAL ESSAY
Title	Informative & catchy: introduces topic & approach in an interesting way.	
Layout/ formatting	Uses a legible font, has information block upper left p. 1, left justification, p. #s in the upper right corner, p. # on works cited p.; proper formatting of quotations and parenthetical references; double spacing throughout.	
Introduction	Clear introduction of topic, including name(s) of work(s), author(s), date(s); thesis statement: clear presentation of the approach you will take in your argument, outlining the direction you will go without giving away conclusions.	
Body	Internal structure matches argument, with paragraphs divided in appropriate ways; argument points strong, logical, and worth making; elegant & unforced transitions between paragraphs; sufficient & verifiable evidence (quotations from primary & appropriate reputable secondary sources); argument stays on topic, no extraneous material; argument is complete, no major points missing; argument deals with possible opposition to points made.	
Conclusion	Does not repeat argument, but instead pushes it further, showing why the essay is important and valuable.	
Style	Consistently formal: no contractions or colloquialism, limited exclamations, dashes, & rhetorical questions; sentences vary in length and structure; modes of address appropriate: "I" to distinguish your argument from others'; "we" for general readers.	
Writing techniques	Spelling clean, no homophonic substitutions ("their" for "there" etc.); no major problems with grammar or punctuation; sentences complete and well structured.	
Works cited	On a separate p., called "Works Cited"; in alphabetical order using hanging indents; correct listing for primary sources (authors, texts) & any secondary sources (Canvas module, class notes, editors' preface or notes, criticism, interviews, dictionary, Bible, websites, etc.).	
Other	[depending on topic/individual].	

N.B. some of these elements, such as formatting, have less weight in the overall mark, while serious problems in writing or argument can result in a failure of the whole essay

Overall/In General:

Mark:

Source: Nicky Didicher, Simon Fraser University (SFU)

Example 4: Group checklist – informal skill observation (analytic rubric for teams)

Date: _____

Observer: _____

NAMES	SKILL A	SKILL B	SKILL C	SKILL D	SKILL E	SKILL F	SKILL G

Skill A = Prepares equipment, reviews procedures, determines purpose before commencing lab work.

Skill B = Follows safety procedures throughout lab experiment, as specified in the lab manual.

Skill C = Follows directions carefully, and uses equipment accurately.

Skill D = Records data systematically using protocols outlined in manual.

Skill E = Cites limitations and/or assumptions involved in the experiment.

Skill G = Cleans lab area after finishing, rinsing and properly storing away equipment and chemicals.

Ratings:

1 = Competent, skills consistently demonstrated.

2 = Improving, needs further practice or reminder.

3 = Incomplete, skills not demonstrated or unsuccessful.

N/A = Not applicable

Source: Fenwick & Parsons (2000).

Example 5: Analytical rubric for 'Communication Skills 1'

CRITERIA	EXCEEDS EXPECTATIONS	MEETS EXPECTATIONS	SATISFACTORILY MEETS EXPECTATIONS	BELOW EXPECTATIONS	SCORE
Main area of discussion	Shows your deep understanding of facts & knowledge in this particular area. You explain all the facts clearly using at least three relevant examples. You present all the info in your own words **(5–4)**	Shows your understanding of facts and knowledge in this particular area. You explain the facts using two relevant examples. The info is presented in your own words **(3–2)**	Shows some level of your understanding of facts & knowledge in this particular area. You explain some facts using one relevant example. Some of the info is presented in your own words **(1)**	Shows a low level of understanding of facts and knowledge in this particular area. You do not explain the facts clearly. No example is provided. Most of the info is plagiarised **(0)**	**5**
Lessons learned from the particular area	You provided a number of practical lessons from what you learnt & related most of the info to your own experiences. You provided a number of key aspects of your life that you'd need to improve or adjust for effective communication **(6–5)**	You provided practical lessons from what you learnt and related the info. to your own experiences. You provided key aspects of your life that you would need to improve or adjust for effective communication **(4–3)**	You provided some practical lessons from what you learnt & related some of the info to your own experiences. You provided a few key aspects of your life that you'd need to improve or adjust for effective communication **(2–1)**	You provided no practical lessons from what you learnt and related no info to your own experiences. You provided no key aspects of your life that you would need to improve or adjust for effective communication **(1–0)**	**6**
Message to other young people	You are able to effectively communicate the importance of the subject in real life, how engaged you were when learning and how interesting the subject is **(5)**	You are able to communicate effectively, to some level, on the importance of the subject in real life, how engaged you were when learning & how interesting the subject is **(4–3)**	You are able to communicate the importance of the subject in real life, how engaged you were when learning and how interesting the subject is **(2–1)**	You are not able to communicate the importance of the subject in real life, how engaged you were when learning and how interesting the subject is **(0)**	**5**

Example 5: Analytical rubric for Communication Skills 1 (cont.)

CRITERIA	EXCEEDS EXPECTATIONS	MEETS EXPECTATIONS	SATISFACTORILY MEETS EXPECTATIONS	BELOW EXPECTATIONS	SCORE
Language	All your ideas were presented in a coherent manner. You have used formal language in writing all your ideas and applied correct grammar (punctuation, spacing, tense, spelling) throughout the document **5–4**	Most of your ideas were presented in a coherent manner. You have used formal language in writing your ideas and applied correct grammar (punctuation, spacing, tense, spelling) in most parts of the document **3–2**	Some of your ideas were presented in a coherent manner. You've used some formal language in writing some of your ideas & applied correct grammar (punctuation, spacing, tense, spelling) in some parts of the document **2–1**	A few of your ideas were presented in a coherent manner. You have used informal language in writing your ideas and not applied correct grammar (punctuation, spacing, tense, spelling) throughout the document **1–0**	**5**
Presentation	All paragraphs are well written with complete sentences. The word count is 700 words. You followed all the instructions on font, font size and spacing **4–3**	Most of the paragraphs are well written with complete sentences. The word count is slightly above 700 words. You followed most of the instructions on font, font size and spacing **3–2**	Some paragraphs are well written with complete sentences. The word count is more than 700 words. You followed some of the instructions on font, font size and spacing **2–1**	The paragraphs are written with incomplete sentences. The word is way above/below 700 words. You followed none the instructions on font, font size and spacing **1–0**	**4**

Source: M. Kariuki, SU

ASSESSMENT METHODS

Selection of assessment methods

There are several types of assessment methods. The circular graphic below shows ways to consider the selection of an assessment method based on your learning outcomes. Select an activity or product for the learning outcome you'd like your students to achieve. For example, if your learning outcome falls under **evaluate**, then you may want students to **debate**, so the activity will be a debate and the product may be a **panel** to facilitate the debate. Under **remember/ understand**, the students may **listen** (activity) to a **radio** or **audio book** (product) and/or **research** (activity) various **models** (product).

Adapted from: Anderson, Krathwohl, et al. (2000).

General list of assessments

What other methods can you think of?

- Projects (performance; practical)
- Problem sheets
- Memos, reviews and journalism
- Oral presentations or oral questioning after observation
- Dossiers and portfolios (possibly self-assessment)
- Pop quizzes
- Exhibitions
- Presentations
- Posters
- Concept mapping
- Participation in class
- Multiple-choice questions (but short-answer questions better)
- Essays
- Design and build
- Simulations
- Group projects and reports
- Applications of prepared computer programs
- Peer assessment
- Self-assessment
- "Broadcasts", photo-journalism
- Time-constrained individual assessment
- Examinations (seen/open book)
- In-tray exercises and real-time simulations
- Case studies
- Course readers

Assessment methods and tasks

OPTIONS	METHODS	EXAMPLES	
Objectively scored (mostly appropriate for the first three levels of Bloom's taxonomy)			
Individual (most common) • test	Objective supply Objective selection	• Short answer • Completion • Multiple choice • Matching true/false	
Subjectively scored (mostly appropriate for the top four levels of Bloom's taxonomy)			
Individual or team-based • test • assignment	Essays	• Essay: Restricted response • Essay: Extended response	
	Performance-based	• Papers • Projects • Portfolios • Presentations • Demonstrations • Exhibitions	• Conferences • Online conferencing • Discussion • Interviews • Simulations • Observation
Individual	Peer-assessment	• Questionnaires • Inventories	• Rating scales • Check lists
	Self-assessment	• Attitude survey • Socio-metric devices • Questionnaires • Inventories	• Portfolios • Journals • Anecdotal records • Rating scales

Making and assessing decisions about assessment in your course

ALIGNMENT (START HERE)	ADJUSTMENT
Choose assessment methods that reflect learning outcomes (outcomes may often be grouped). If you need to gauge where students are on an achievement scale, consider a diagnostic assessment. Otherwise, consider both formative and summative methods or tasks.	Check that you are not putting too big a time load on yourself and the students. If so, modify the plan.
Check whether there are any learning outcomes that don't have an assessment connected to them.	If so, develop tasks in line with your earlier planning; this may involve adjustments to that plan.
Verify that the weighting of the assessment methods or tasks (in terms of students' effort and time) accurately reflects the relative importance of the different outcomes.	If not, modify the plan. Then, check that you are not putting too big a time load on yourself and the students. If so, modify again.
Check that the teaching and learning strategies and formative assessment you have planned actually enable students to practise and get feedback on the tasks they will be evaluated on summatively.	If there is a problem, revisit your decisions regarding strategies. Then, check that you are not putting too big a time load on yourself and the students. If so, modify the plan.
Check that there is a balance of types of assessment methods or tasks (e.g. avoid having only short answer tests); also check that assessment is distributed over the course as much as possible to reduce overload for you and the students.	Make final adjustments.

Adapted from materials by P. Knight and Simon Fraser University.

DAY 3 VIDEOS ON DEMONSTRATING THE PROCESS OF DEVELOPING ASSESSMENT PLANS

The following videos feature two different facilitators of learning who describe what they did on Day 3 of the course redesign workshop. The two demonstrators outline the different steps they took in selecting and aligning their formative and summative assessment tasks to their course learning outcomes, as well as how they ensured that the assessment tasks would help their students develop skills that would be relevant for the real world.

Video 3.1a – www.inasp.info/CR31a

Video 3.1b – www.inasp.info/CR31b

SUGGESTED CRITERIA FOR EVALUATING YOUR ASSESSMENT PLAN

1. Are the methods or tasks aligned with learning outcomes? Does the use of language make the alignment explicit?
2. Is the weighting of the different methods or tasks appropriate in relation to the importance of the outcomes and the time that students will spend on learning?
3. Are the assessment methods or tasks distributed over the course to reduce stress and provide feedback to learners on progress towards achieving the outcomes?
4. Is a range of assessment methods or tasks being used, including alternative and informal, to support different kinds of learning as stipulated in your learning outcomes?
5. Do the methods or tasks assess a range of different kinds of learning outlined in the taxonomy of significant learning?
6. Do the assessment methods or tasks promote and provide practice in soft skills such as problem-solving, critical and creative thinking skills, and other capabilities and dispositions that you have prioritised for your course?
7. Have you identified an assessment task (authentic) that is forward-looking in your course?
8. Can you make explicit the criteria you would use to a) help students understand the nature of the learning task, b) ensure reliability and c) allow for self-assessment?
9. Is it do-able? as in not too much work for you and your students?
10. Do the tasks take into account the learning preferences of both your male and female students?
11. Is gender responsiveness included as an assessment criterion for any content that your students might be producing as part of the assessment activity?
12. Will both male and female students be able to practise and enhance their skills and/or knowledge as part of the assessment method or task (e.g. by taking on a leadership role in any assessment tasks that requires group work)?
13. Will both male and female students have equal access to any special equipment or facilities that might be needed in order to complete the learning task?
14. Is the content and language of your assessment activities gender responsive (i.e. containing no gender bias or sexist examples)?

CHART: LINKING COURSE CONCEPTS THROUGH TO TEACHING AND LEARNING STRATEGIES

This six-column chart links course concepts and soft skills through to formative and summative assessment methods and then on to teaching and learning strategies – this can act as a helpful organiser to draw on, particularly when compiling a course assessment plan and schedule of teaching and learning strategies. You need to make sure that you directly link the assessment methods (and tasks) and the teaching and learning strategies (and activities) to the learning outcomes for the course that you are redesigning.

1 **CONCEPTS**	2 **KEY SOFT SKILLS** **(i.e. skills, capabilities & dispositions)**	3 **LEARNING OUTCOMES**	4 **FORMATIVE ASSESSMENT METHODS/ TASKS**	5 **SUMMATIVE ASSESSMENT METHODS/ TASKS**	6 **TEACHING & LEARNING STRATEGIES/ ACTIVITIES**

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Fink, L. D. 2013. *Creating significant learning experiences: An integrated approach to designing college courses*. Jossey Bass.

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DAY 4: TEACHING AND LEARNING STRATEGIES

FURTHER REFLECTION ON THE ASSIGNED COMPULSORY READING

Making thinking visible: How to promote engagement, understanding, and independence for all learners – Chapter 1: Unpacking thinking

Note your reflections to the following questions in the table:

- What do you mean when you say, "I want my students to think"?
- What kinds of thinking do you value in your course?
- What teaching and learning strategies can promote the kinds of thinking that you value in your course?

THREE THEORIES OF TEACHING

Paul Ramsden describes three theories of teaching in his 2003 book *Learning to Teach in Higher Education* published by Routledge.

The following are excerpts from his book.

Theory 1: Teaching as telling (Transmission)

> *Many university lecturers implicitly or explicitly define the task of teaching undergraduates as the transmission of authoritative content or the demonstration of procedures. The knowledge to be handed on to students at this level (in contrast to the knowledge constituted in research and scholarship at higher levels) is seen as unproblematic.*
>
> (p. 108)

Theory 2: Teaching as organising student activity (Transaction)

> *In theory 2, the focus moves away from the lecturer towards the student. Lecturers see teaching as a supervision process involving the articulation of techniques designed to ensure that students learn. Authoritative subject knowledge, so salient in the first theory, recedes into the background.*
>
> (p. 109)

Theory 3: Teaching as making learning possible (Transformation)

> *If theories 1 and 2 focus respectively on the facilitator of learning and the student, theory 3 looks at teaching and learning as two sides of the same coin. Theory 3 is a more complex view. In this conception, teaching, students and the subject content to be learned are linked together by an overarching framework or system. Teaching is comprehended as a process of working cooperatively with learners to help them change their understanding. It is making student learning possible. Teaching involves finding out about students' misunderstandings, intervening to change them and creating a context of learning that encourages students to engage with the subject matter.*
>
> (p. 110)

DAY 4 VIDEOS ON MOVING FROM COURSE LEARNING OUTCOMES TO TEACHING AND LEARNING STRATEGIES

The following videos feature two different facilitators of learning who describe what they did on Day 4 of the course redesign workshop. The two demonstrators show the different steps they took, in selecting and aligning their teaching and learning strategies to their course learning outcomes and the soft and hard skills they want their students to develop.

Video 4.1a – www.inasp.info/CR41a

Video 4.1b – www.inasp.info/CR41b

SUGGESTED CRITERIA FOR EVALUATING THE TEACHING AND LEARNING STRATEGIES YOU HAVE CHOSEN

Once you have made your decisions, ask yourself these questions before you get feedback from a colleague about your choices.

1. Do the teaching and learning strategies support and provide practice in achieving learning outcomes that inculcate both soft and hard skills?
2. Are the teaching and learning strategies aligned to the learning outcomes?
3. Are they helping students to learn the concepts and how the concepts are related on your map?
4. Do the teaching and learning strategies include a range of different kinds of learning, and promote and provide practice in, for example, problem-solving, critical and creative thinking skills, as well as capabilities and dispositions that you have prioritised for your course?
5. Do the teaching and learning strategies take into account the learning preferences/ styles of both your male and female students?
6. Do the teaching and learning strategies allow for equal participation of both your male and female students?
7. Are gender perspectives covered through the teaching and learning strategies (e.g. by inviting visiting lecturers or speakers who can bring a gender perspective that might be lacking in the course)?
8. Is the content and language of your teaching and learning strategies/ activities gender responsive (i.e. containing no gender bias or sexist examples)?
9. Are opportunities provided for feedback from self, peers and yourself (as a facilitator of learning)?
10. Given the context and the resources available, are the teaching and learning strategies the better/best choices?
11. Are most of the teaching and learning strategies metacognitive i.e. do they allow students to take control of their learning?
12. Do the teaching and learning strategies promote critical reflective thinking so that students are able to make meaning, to create new knowledge and to innovate, with the ultimate goal of transforming themselves and their world?

MATCHING SOFT SKILLS TO APPROPRIATE TEACHING AND LEARNING STRATEGIES

DIMENSION	TEACHING AND LEARNING STRATEGIES
Foundational knowledge	
Building a knowledge base	
Application	
Selecting appropriate information	
Evaluating and interpreting information	
Making sound arguments and decisions	
Analysing the claims/arguments of others	
Creativity and innovation	
Integration	
Interconnected thinking	
Applying information to personal, social and/or work life	
Networking	
Dealing with an uncertain future	

DIMENSION	TEACHING AND LEARNING STRATEGIES
Human dimension	
Self-management	
Teamwork	
Interpersonal skills	
Negotiation and managing conflict	
Oral and written communication	
Leadership	
Caring	
Social awareness	
Commitment to positive social change at the community level	
Learning how to learn	
Self-direction	
Reflective thinking	

SUGGESTED TEACHING AND LEARNING STRATEGIES MAPPED AGAINST BLOOM'S REVISED LEARNING DOMAINS AND LEVELS

DOMAIN AND LEVEL	TEACHING AND LEARNING STRATEGY
Cognitive Domain	
Remember	Lecture, drill and practise
Understand	Lecture, self-study (read, modular units)
Apply	Discussion, simulation, CAI (computer-assisted instruction), field experience, laboratory
Analyse	Discussion, independent/group projects, simulations, field experience, role- playing, laboratory, case studies
Evaluate	Independent/group projects, case studies, field experience, laboratory
Create	Problem-based learning, case studies, independent/group projects
Affective Domain	
Receiving	Lecture, discussion, field experience
Responding	Discussion, simulations, role-playing, field experience
Valuing	Discussion, independent/group projects, simulations, role-playing, field experiences
Organisation	Discussion, independent/group projects, field experience
Characterised by a value complex	Independent projects, field experience
Psychomotor Domain	
Perception	Demonstration (lecture), drill and practice
Set	Demonstration (lecture), drill and practice
Guided Response	Peer teaching, games, role-playing, field experience
Mechanism	Games, role-playing, field experience, drill and practice
Complex Overt Response	Games, field experience
Adaptation	Independent projects, games, field experience
Origination	Independent projects, games, field experience

Adapted from: Krothwohl (2002), pp. 212–218; Weston & Cranton (1986), pp. 259–288.

EXAMPLES OF LINKING TEACHING AND LEARNING STRATEGIES TO COURSE LEARNING OUTCOMES

Example 1: Linking teaching and learning strategies to 'Sociology and Group Dynamics' course learning outcomes (ARD 3101)

COURSE LEARNING OUTCOMES	TEACHING AND LEARNING STRATEGIES
Relate the influence of individuals on society and vice versa to improve the lives of rural farmers (bring about social change)	• Lectures • Presentations • Livelihood projects that are culturally sensitive
Mentor farmer groups effectively for improved service delivery	• Group work on the implications of farmer-organised groups on agricultural development
Mainstream gender in extension service delivery	• Lectures • Group work
Sensitise the community about gender roles in the community	• Poster design and presentations
Mobilise communities to manage innovative agricultural projects	• Lectures • Class presentation on agricultural innovations • Group work on analysing cases/scenarios
Solve agricultural development problems	• Field visits to the community • Group discussions

Source: Irene Akite (Gulu University)

Example 2: Linking teaching and learning strategies to 'Data Warehouse and Data Mining Course' course learning outcomes (ICT,303)

COURSE LEARNING OUTCOMES	TEACHING AND LEARNING STRATEGIES
• Organise data for analytical purposes in organisations • Extract data from different sources in an organisation	• Group work-dealing with real world scenarios • Class exercises • Use of flipped classroom to promote thinking • Group discussion – each group assigned a specific task • Scenario and guided analysis
• Protect data repositories in organisations in an ethical and professional manner • Manage data warehouse systems in organisations	• Problem scenario online • Concept map • Short videos on data privacy and security • Reverse brainstorming

Source: Tupokigwe Isagah (Mzumbe University)

Example 3: Linking teaching and learning strategies to 'Ecological Economics' course learning outcomes (REM/ENV 321)

COURSE LEARNING OUTCOMES	TEACHING AND LEARNING STRATEGIES
Explain and depict the economic concepts of supply and demand	• Textbook reading • Lecture overview • Tutorial simulation exercise: build your own "Demand Curve"
Develop collaborative, interdisciplinary learning and thinking skills	• Group work (mixed disciplines, sit together in lecture and tutorials) • Small group discussions • Tutorial simulations
Explain, apply and critique cost-benefit analysis (CBA)	• Reading on CBA • Lecture overview • Demonstrate calculations • Case example: Northern Gateway Pipeline • Small group discussion on pipeline • Clicker "opinion" question on critiques of study • Lecture

Source: Jonn Axen (Simon Fraser University)

DESCRIBING YOUR REDESIGNED COURSE IN A NUTSHELL

You will be drawing on these questions below to present and pitch your redesigned course, as if to a new class of students on your redesigned course, on Day 4 and Day 5 of the workshop.

- Who are the participants (the students on your course)?
- What is the purpose of the course or what will the course enable your students to do?
- What is the pay-off or how will your students benefit from being on the course and who will they become?
- What was the process of developing your course? (share the concepts, then pick one concept and share the aligned learning outcomes, the assessment methods/ tasks and teaching and learning strategies/teaching and learning activities).
- In what ways are you making the planning and facilitation of your course gender-responsive? (remember the notes you've made in the "Ways to be gender-responsive in the planning and facilitation of my course" section in your handbook).
- How will the course enable your students to make meaning, to create and innovate, to learn and become the person(s) described in the Big Dream for the course, but also for them to ultimately transform themselves and their world?

CREATING A COURSE OUTLINE

Course outlines are intended to provide students with an overall plan to help them function efficiently in the course. You will find listed below some of the typical sections you might find in a course outline. The "Evidence document for programme alignment, transformative learning and course redesign", which you were first introduced to at the programme alingment workshop, will provide you with more detail on what is required under each section and will help you in creating a new course outline or completing an existing university course outline template.

A course outline can be divided into six sections:

1. **General information**
2. **Learning outcomes** (for hard and soft skills)
3. **Course content** (including the concept map)
4. **Assessment plan** (formative and summative assessment)
5. **Teaching and learning strategies**
6. **Course resources** (core and recommended resources)

THE CONVERSATIONAL FRAMEWORK AND SIX LEARNING TYPES

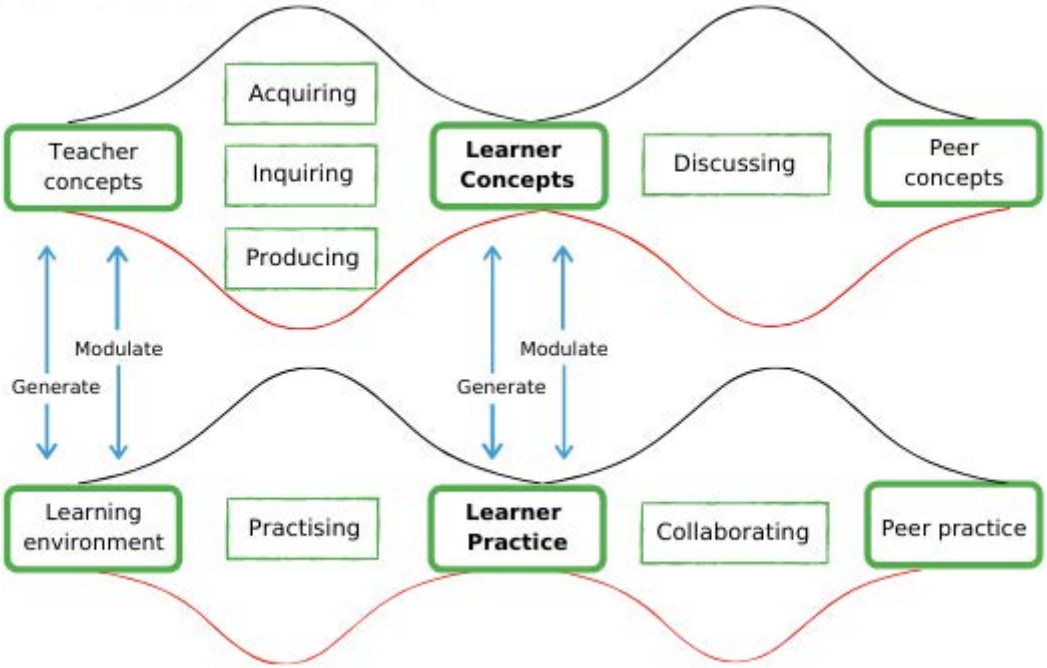
The conversational framework designed by Diana Laurillard is a model of how people learn in formal educational settings. It argues that learning is supported by dialogue between students and their instructors (in our case facilitators of learning) and that six different types of learning can be facilitated by this dialogue. It draws on learning theories such as conceptual, experiential and collaborative learning, as well as social constructivism and constructivism. The framework helps facilitators of learning to design teaching and learning activities from the perspective of students.

How would you describe each of the below learning types to a colleague? What examples would you give? Provide your explanations in the table below.

TYPE OF LEARNING	SHORT EXPLANATION
Acquisition (read, watch, listen)	
Investigation (inquiry)	
Discussion	
Practice	
Production	
Collaboration	

Together all of these six learning types encompass the whole conversational framework. The more different types of learning you use in your learning designs the better and the more effective the learning experience will be for your students.

THE CONVERSATIONAL FRAMEWORK



Source: Adapted from Laurillard (2012)

The full conversational framework is shown here. It starts with the learner at the centre. Learning is an activity that develops both concepts and practices. We develop a concept, which generates an action, and feedback on that action then modifies the concept to generate a better action that then gets better feedback. In this way, concept and practice each assist the other to develop over time. And this fundamental process of developing and integrating concepts and practices is what we try to use for learning in formal education. So here the learner can get help from the facilitator of learning on the one hand, and from other learners on the other hand. At the upper level of the framework the teacher and learner communicate about concepts and learners do the same with each other. And every interaction is an opportunity for concepts to develop. At the lower level, teachers and students model and share their practice through actions and feedback in a special learning environment. And again, all those interactions are an opportunity for practices to develop. If the learning environment is quite challenging then to get the best feedback the learner has to integrate concepts and practices – and that's when the learning process really begins to benefit the learner in the long term.

We can identify some recognisable learning activities that together cover the whole framework.

(Transcription from 'An Introduction to the 6 Learning Types', (2019) Diana Laurillard and Eileen Kennedy).

Video 4.2 – www.youtube.com/watch?v=TSP2YIgTIdc.
Diana Laurillard explains the conversational framework and the six types of learning.

A good facilitator of learning will use all of these types of learning to continually prompt the learner to generate and modulate their concepts and practice.

During the course redesign workshop, you will be introduced to an online tool called Learning Designer, which is based on this framework. It helps facilitators of learning to design teaching and learning activities and to share their learning designs with each other. It was developed by a team led by Diana Laurillard at the UCL Knowledge Lab and is free for anyone to use.

Padlet with examples of teaching and learning activities/strategies

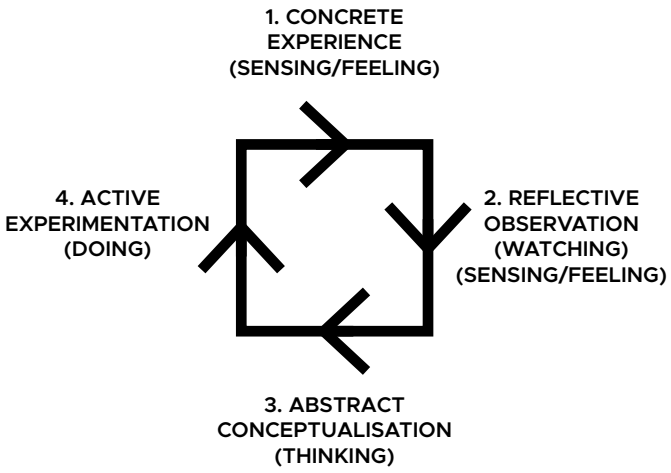
A teaching and learning strategies Padlet board has been created, which provides further examples and descriptions of strategies/ activities that fall under each of the six types of learning. The Padlet also includes many of the strategies used during the programme alignment, transformative learning and course redesign workshops. You can use these for inspiration as you plan how to teach your concepts. Please note that the strategies/activities are examples only and that there are many more strategies and activities that you could use.

Link: Padlet: Teaching and learning activities/strategies

THE BASIC FOUR-STEP PROCESS OF TRANSFORMATIVE LEARNING

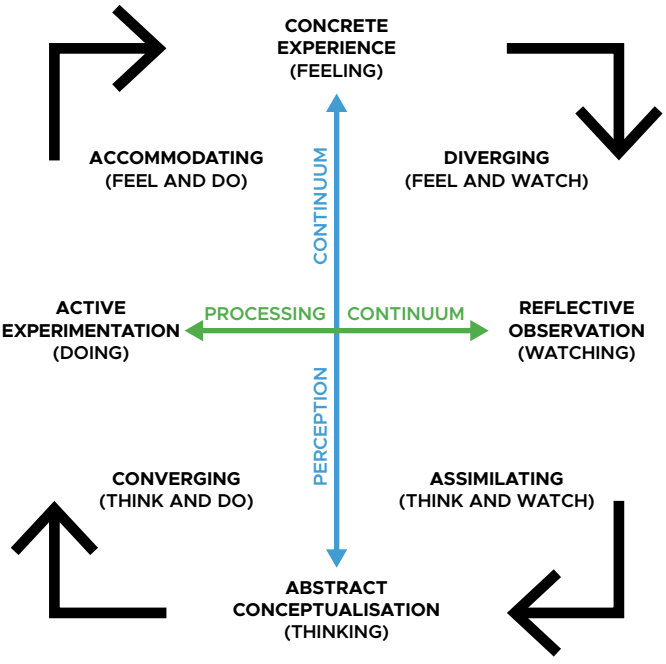
1. **Concrete experience:** Start a lesson with some form of concrete experience. This can be a physical activity (e.g. a learning game, impromptu skit, etc.), a worksheet, a self-evaluation questionnaire, or a presentation (e.g. video, slides, sound recording, etc.). The design of the activity should be such that it gives the participants either a real experience (a learning game, impromptu skit, a worksheet, a self-evaluation questionnaire), or a vicarious one (a story, an anecdote, or a presentation). Include a lot of sensory input. The experience should facilitate sensing and feeling. The intention of the experience is to help participants come face to face with their unexamined assumptions and presuppositions about some issue.
2. **Reflective observation:** Next, have the participants think about and reflect on their reactions to the exercise. Why do they think they felt the way they did? This can be done in twos or threes or even in the big group if there is a high sense of trust in the group. This helps participants to begin to identify and challenge assumptions that underlie beliefs, values, and actions that we have taken for granted and the context that supports these assumptions.
3. **Abstract conceptualisation:** This is the dreaming, imagining, new idea stage. Have the participants begin imagining and exploring alternatives to existing ways of thinking and living. This is a search for new ways of explaining and behaving. We begin developing alternative perspectives. By gaining some new insight or changed perspective we begin learning in new ways.
4. **Active experimentation:** This is the "let's try it out" stage. Facilitate discussion along the lines of "How can we implement these new insights (new perspectives, new assumptions, etc.) into our lives. We begin integrating the news ways into our lives. This experimentation completes the learning cycle, as the attempt to "try it out" becomes the new concrete experience.

THE TRANSFORMATIVE/PRAXIS LEARNING CYCLE



The 'Transformative Learning Cycle' is a termed coined by Charles Kingsbury of AFELT to refer to teaching and learning that aligns with the four areas of Kolb's (1984) learning styles. The cycle is a matching of Kolb's styles with Mezirow's (1978, 1991, 2000) Transformative Learning theory.

KOLB'S REFLECTIVE LEARNING CYCLE



Redesign of a single learning session, following the transformative learning cycle

Instructions

- First note down a single concept or topic for which you will be designing a 2- to 3-hour learning session.
- Note down the common misconceptions about your chosen concept or topic that most students make.
- Design a 2- to 3-hour learning session for this single concept or topic, from the course you are redesigning, following the four phases of the transformative learning cycle. Develop an experience that incorporates the following:
  - A lot of sensory input from the students. The experience must facilitate sensing and evoke feeling, for example video, sound recordings, games, impromptu skits, self-evaluation questionnaires, etc.
  - Reflective questions that allow for reflective observation and that enable your students to examine their hidden assumptions and misconceptions about the concept or topic in question.
  - Factual data that will expose the theories that underpin the field of study.
  - An activity to help formalise new ideas formed due to student interaction with the presented facts. This activity should allow for the validation/invalidation of their assumptions and get them to express what they now know.
  - Another experience that will help students to test out their newfound knowledge.

Draft your learning session plan in the table.

Continue to draft your learning session plan in the table.

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DAY 5: FROM COURSE TO LEARNING EXPERIENCE REDESIGN

DESIGNING EFFECTIVE LEARNING EXPERIENCES

Videos about the online Learning Designer tool

Learning Designer is an online tool that can assist facilitators of learning to structure their learning designs so as to engage their students in the six different learning types, as outlined in the conversational framework.

The 'Introduction to Learning Designer' (5.1) video provides a general introduction to the online tool while the second 'Learning Designer Guide' (5.4) goes into more detail on how to use it. The two videos will help prepare you for the hands-on sessions where you get the opportunity to examine and experiment with the tool more closely.

N.B. Watch the two videos **in advance of Day 5** of the course redesign workshop. The videos contain a level of detail which makes them more suitable to watch on the screen of a personal computer as opposed to a projection on a large screen in a face-to-face session.

Links to the videos:

Video 5.1 Introduction to Learning Designer – https://youtu.be/bEBNSsr1MxU

Video 5.4 Learning Designer Guide – https://youtu.be/bprffcCS0Jc

Evaluating example learning designs

Examine at least one of the learning designs lecturers developed using the online Learning Designer tool. Then evaluate it against the list of questions in the table below, which focus on how well the author used the Learning Designer tool to capture the detail of their learning experience.

Links to two learning designs using the Learning Designer tool:

Link to learning design 1: Disease markers – LD (ucl.ac.uk)

Link to learning design 2: Neuroanatomy and development of CNS – LD (ucl.ac.uk)

Questions for evaluating example learning designs

If you are evaluating both learning designs, label your notes LD1 or LD2 in the findings column.

EVALUATION QUESTION	FINDINGS
1. How clear are the course learning outcomes?	
2. Do the descriptions of the teaching and learning activities match the learning types assigned by the author?	
3. Is the balance of learning types used, appropriate given the learning outcomes?	
4. How effectively does the author use Kolb's learning cycle and what does the sequence of phases look like?	
5. How accurately has the author used the different features? For example, if the blended icon has been selected, does the contents of the learning design actually match this?	
6. How appropriate and clear are the teaching and learning activities and their sequencing? (incl. student no. selected and timings for each teaching and learning activity)	
7. How gender responsive is the learning design?	
8. How aligned are the learning outcomes, assessment and teaching and learning activities?	
9. What other observations do you have?	

DAYS 1–5: GENDER-RESPONSIVE PEDAGOGY

WAYS TO BE GENDER-RESPONSIVE IN THE PLANNING AND FACILITATION OF MY COURSE

This section is a place for you to note down reflections from the five days of the course redesign workshop. The reflections you record will help you to prepare for your final course redesign showcase pitch at the end of the week, but most importantly they will feed into the redesign of your current and future courses.

Day 1:

Think back to your own education (either university or schooling):

- Can you think of a time when boys/girls or young men/women were treated differently?
- What did this teach you about gender/being a man or woman?
- **As a facilitator of learning now, what would you have done differently in that situation?**

Day 2:

- What do the audit results mean for your course in terms of how you will **prepare your students** for the industry they will encounter after graduation?

Think about:

- What gender issues will your students, as future professionals, encounter during the course of their professional work?
- Will they be sensitive to the different needs women and men might have as their customers/patients/pupils or users of products?
- How can you make them more aware of gender stereotypes they might encounter in the field you are teaching in?

Day 3:

- What are the implications of the role plays for the workplace?

  If a female student gets the top grade in all her written work but is silent in class, how might this translate to how she operates in the workplace?

  If a male student is overly confident, but does not do enough work to fulfil his potential, how might this translate to how he operates in the workplace?

- How might internalised bias have affected the students in the role play scenarios?

Day 4:

- How have male/female students behaved differently in your class or learning session?
- What was your role as a facilitator of learning in relation to these interactions?

Day 5:

- What is your key takeaway from the gender sessions?
- What are you going to do to make your course more gender responsive going forward?
- Who are you going to communicate your learning to, about how to make your course more gender responsive following this workshop?

OTHER GENDER CONSIDERATIONS THAT MAY IMPACT ON THE TEACHING OF MY COURSE

This section is a place for you to capture any additional ideas, thoughts and reflections related to gender that you may have during the course redesign workshop. This could be, for example, thoughts about how to make your learning sessions and/or designs more gender responsive.

THE CONVERSATION

Think you're all for gender equality? Your unconscious may have other ideas

29 November 2016 3.16pm SAST

Author: Magdalena Zawisza, Senior Lecturer in Psychology, Anglia Ruskin University

Originally published on the Conversation: https://theconversation.com/think-youre-all-for-gender-equality-your-unconscious-may-have-other-ideas-69520

The words of my doctor from earlier that morning were still ringing in my ears when I found myself slamming the brakes of my car to avoid a nasty collision. An incompetent driver was cutting across two lanes at a roundabout just in front of me. Still perspiring somewhat I carried on to drop off my screaming child with the nanny. It was a hectic morning.

Now let's stop to take a breath and ponder on this story. Was the doctor you imagined male? Was the bad driver female? And what of the nanny and the narrator? Females too? If so, you have just experienced unconscious gender bias. You are not alone. Even the almighty Google image search **"thinks" 75% of doctors are male** but in reality women make up **just over half of GPs in the UK**. In fact Google **has been accused of unconscious bias** in its own operations as over 79% of its managers and engineers are male. Apple, Facebook, Twitter and Yahoo **are not far behind**.

What exactly is unconscious gender bias and why do we have it? Unconscious, or implicit, bias **happens outside of our control** and awareness. It's automatic and reflects the associations we acquire as we socialise into the culture we grow up in. You can test your own implicit biases more scientifically by taking this **Implicit Association Test**. The test was designed to capture the brain's learnt automatic associations. Since it is based on time reactions it can bypass our social desirability concerns and tap into unconscious biases. As such **it is reportedly superior to self-report measures** of prejudice in predicting behaviours.

Implicit bias is a result of our mind developing mental shortcuts to navigate the complexities of reality efficiently. It is often evolutionarily adaptive. For example, we automatically favour **flowers over insects**, which protects us from being stung by something that might harm us – a spider for example. This is both a normal preference for most people but has also been seen in implicit association tests. However, **implicit association studies also show** that we favour the young over the old, the white over the black and heterosexuals over homosexuals. But what about unconscious gender biases?

WONDERFUL PEOPLE

Women are wonderful, or are they? You may be surprised to learn that **research reports** that we consistently **prefer women over men** and mothers over fathers implicitly. This is akin to the **WAW ("women-are-wonderful") effect** – women being perceived positively on the whole as they are stereotyped as supportive, nice and [gentle].

This effect, however, disappears, and even reverses, the moment women step in to the "male domain" or otherwise challenge stereotypical expectations. For example, people implicitly (**and explicitly**) **prefer male to female authority figures**, **male to female leaders** and **non-feminist women to feminists**. My own research shows that female students implicitly prefer housewives over businesswomen. The implicit pro-female preference **also reverses in men** when they expect to interact with a superior woman as opposed to an equal or subordinate one.

We only need to look to the recent American presidential election to see some real life examples of this effect. Donald Trump **himself claimed** that "nobody respects women more than I do" just three months before a record of his boastful groping account was revealed.

So what about implicit bias towards men? Are they wonderful too? Again, it depends. Women implicitly **prefer an egalitarian to a sexist or "typical" man**, while men prefer that same egalitarian male less. Male public and private sector workers in my samples show slight implicit preference for a househusband over a businessman male type – perhaps due to the homely men's greater likeability. Still, when compared to women, traditional males – such as those in authority or leadership roles – are preferred.

WHAT CAN WE DO ABOUT IT?

Why does this matter and what can we do about it? Unconscious bias is particularly problematic in the world of work and education. Even in a supposedly objective academic setting male applicants for lab manager position **in one experiment** were hired more often and offered more money **when their name was John as opposed to Jennifer** – despite identical CVs. When professional women become mothers **they suddenly are perceived as less competent** – a trade-off which does not affect men when they become fathers.

Unconscious bias limits, among others, people's occupational prospects. The **first step to deal with this is an awareness** of the problem. The nature of our cognition and thinking processes means that all of us are vulnerable to various unconscious biases and all of us may be subjected to them. For example, one study showed that **men under-performed on social sensitivity tests** (for example decoding nonverbal cues) when they were told that the test assessed social sensitivity and produced better scores for women than men. Men who were told that the test assessed information processing did not under-perform.

Being aware of our own unconscious bias can help. However, prevention requires motivation. Therefore, anonymised recruitment processes, mentorship, carefully managed **collaborative work environment and training** can also help.

However, since unconscious bias has its roots in the social world we live – where we learn associations from the gender roles we see around us – the surest way to diminish it is to provide alternative associations.

This could be achieved by encouraging equal participation of men and women across traditionally gendered social roles. Once all doctors, drivers, nannies and world leaders are split fairly between male and female – and we see this represented across the media and elsewhere – over time we can move towards equal implicit associations. In the meantime we need to at least make the unconscious conscious so that it is less likely to play a trick on us.

UNDERSTANDING UNCONSCIOUS BIAS

You can watch **Video 2.4**, a video animation commissioned by the Royal Society that further explains what unconscious bias is here – https://www.youtube.com/watch?v=dVp9Z5k0dEE.

GENDER-RESPONSIVE PEDAGOGY – WHAT FACILITATORS OF LEARNING CAN DO

This resource has been developed by the Transforming Employability for Social Change in East Africa (TESCEA) project. It exists to support you, as a facilitator of learning, to integrate gender responsive pedagogy into the redesign of your course and to implement this in your subsequent learning designs.

The resource covers a range of areas related to course redesign and learning design. It provides examples of what you can do yourself as a facilitator of learning and what you can do in collaboration with your students in order to address gender in your course concepts/topics, learning outcomes, assessment, teaching and learning strategies and activities, teaching and learning materials as well as in your learning spaces. It is not expected that all examples included in this resource will be of equal relevance for all courses. You will know best which parts of the resource will be most relevant to the context of your course.

You can read examples of how lecturers who have participated in the TESCEA project have made their courses and classes more gender responsive here: https://blog.inasp.info/how-to-make-university-classes-more-gender-responsive/.

We have drawn on a number of toolkits to inform this resource. You can find the details of these at the end of the document. You might have further examples of what facilitators of learning can do either by themselves or in collaboration with their students to make their courses and learning designs more gender responsive. We encourage you to add these to the resource so that you have them all collated in one place for future reference.

	WHAT YOU CAN DO AS A FACILITATOR OF LEARNING YOURSELF	**WHAT YOU CAN DO WITH YOUR STUDENTS**
FUTURE GENDER-RESPONSIVE PROFESSIONALS	• Contemplate how your students, as future professionals, will encounter gender issues in the course of their professional work. Will they be sensitive to different needs that women and men might have as their customers/patients/pupils or users of products your students will make as professionals? • Think about how to make your students more aware of gender stereotypes connected to the field you are trying to teach? Are they aware of gender inequalities they will face one day as professionals? If you are teaching for a profession that is traditionally male-dominated, have you considered how your female students feel about the professional scene they are entering? And vice versa. How can you better prepare your students for a professional world where men and women are sometimes treated differently? (Feel free to add your own examples)	• Ask your students to identify any gender gaps/ issues related to the professional field you are trying to teach; discuss possible contributing factors with your students and what you can do together during the course to prepare your students for encountering these gaps/issues as future professionals (Feel free to add your own examples)

	WHAT YOU CAN DO AS A FACILITATOR OF LEARNING YOURSELF	WHAT YOU CAN DO WITH YOUR STUDENTS
GENDER-RESPONSIVE CONCEPTS AND TOPICS	• Consider any global, national or local gender inequalities that might arise in your course and how these might need to be factored into your course concepts/topics either directly or in the way you teach them • Consider how gender issues related to the profession (see above) might play out in your course and how these might need to be factored into your course concepts/topics either directly or in the way you teach them • Consider how any gender stereotypes related to the field you are teaching might play out in your course and how these might need to be factored into your course concepts/topics either directly or in the way you teach them • Consider what gender biases and assumptions on gender/gender blindness exist in the research that informs the field you are teaching (e.g. is research data in your field gender disaggregated and are gender differences analysed and addressed?) Do you need to address how students conduct gender-responsive research either directly in your course concepts or in the way you will teach these concepts? If so, where will this fit into your course outline? (Feel free to add your own examples)	• Share your concepts/ topics with your students and explain to them how gender will be considered in your course • Ask your students to identify any gender gaps in a particular concept/ topic; discuss possible contributing factors with your students and how you together can bridge these gaps during the course (Feel free to add your own examples)

	WHAT YOU CAN DO AS A FACILITATOR OF LEARNING YOURSELF	WHAT YOU CAN DO WITH YOUR STUDENTS

GENDER-RESPONSIVE LEARNING OUTCOMES (LO)	• Ensure that gender is incorporated into the intended learning outcomes for your course or learning design; this can be:
	  • as general gender LOs (e.g. students can carry out research with a gender perspective; students can identify and problematise gender roles, stereotypes and biases in their subject or the exercise of their profession)
	  • or as subject-specific gender LOs (e.g. students can interrogate and understand the impact of gender on a particular topic)
	  [see detailed examples of gender responsive intended learning outcomes relevant for various disciplines in AQU Catalunya (2018)
	(Feel free to add your own examples)
		• Share the LOs with your students and explain why gender is incorporated into them
		(Feel free to add your own examples)

	WHAT YOU CAN DO AS A FACILITATOR OF LEARNING YOURSELF	WHAT YOU CAN DO WITH YOUR STUDENTS
GENDER-RESPONSIVE ASSESSMENT AND EVALUATION	• Consider whether your male and female students might have different preferences for types of assessment methods when choosing these (e.g. might your female students feel more confident about written assessments, might your male students feel more confident about oral assessments?) • Use a variety of assessment methods to take into account different learning preferences amount your students • Ensure that both your male and female students will be able to demonstrate and enhance their skills and/or knowledge as part of any formative assessment activities (e.g. by taking on a leadership role in any assessment activities that require group work) • Ensure that both your male and female students will have equal access to any special equipment or facilities that might be needed for an assessment activity • Use gender-responsive content, case studies and language in your assessment activities • In your course evaluation, consider posing questions on the extent to which the course is gender-sensitive and/or to what extent you as the facilitator of learning are gender-sensitive in your teaching (Feel free to add your own examples)	• Offer your students two or three choices as to how they want to be formally assessed (for example, writing a pitch or delivering a pitch) in order to take account of different learning preferences • Include gender aspects as an assessment criterion for student assessments (and share this criterion with your students) (Feel free to add your own examples)

	WHAT YOU CAN DO AS A FACILITATOR OF LEARNING YOURSELF	WHAT YOU CAN DO WITH YOUR STUDENTS
GENDER-RESPONSIVE TEACHING AND LEARNING STRATEGIES AND ACTIVITIES	• Select teaching strategies that will ensure equal participation of both female and male students (e.g. group work, group discussions, role play, debates, explorations and practicals can be effective) • Develop and use case studies, learning activities, examples and content that is relevant, meaningful and personalised to female students and male students • Craft written questions to reflect gender representation – use names of both men and women, and use both male and female characters • Ensure that activities take gender into account/ apply a gender lens/challenge gender stereotypes (e.g. include female and male styles in discussions on leadership, the differential impacts on women and men, cases where women or men do things that contradict gender stereotypes etc.) • Develop activities to support students in recognising and identifying gender stereotypes, gender bias, lack of/under representation etc. (e.g. analysis of course relevant news articles or teaching and learning materials) – or in countering them (e.g. tasks related to female agriculturists) • Invite equal numbers of female and male guest speakers (leaders and/or appropriate role models) to talk to students within the context of your course • Consider inviting a visiting lecturer renowned for her/his gender-sensitive approach to bring a gender perspective that might be lacking in your course (Feel free to add your own examples)	• Design activities and questions that elicit your student's pre-existing beliefs (e.g. gender stereotypes, or unconscious biases they may hold) and then get your students to consider how those beliefs influence/d their own problem-solving, decision-making, responses etc. • Give assignments that require your students to think about the gender dimensions of the subject • Task your students with taking a previously existing non-gender-sensitive study and adjusting it so it would have provided gender-sensitive data (Feel free to add your own examples)

	WHAT YOU CAN DO AS A FACILITATOR OF LEARNING YOURSELF	WHAT YOU CAN DO WITH YOUR STUDENTS
GENDER-RESPONSIVE TEACHING AND LEARNING MATERIALS	• Develop (or co-develop with your students) and use learning materials that depict both genders performing the same activities and roles • Use images and cases that reinforce attitudes and beliefs that women are equal to men (e.g. by portraying women in lead roles and men as helpers) • Introduce students to the gender dimension of the presented content • Include publications that take a gender-sensitive approach in the course readings • Use gender-equitable research when presenting teaching and learning content (Is all data or information that is used gender-disaggregated? Are gender differences analysed and addressed in the research examples? Is there any effort to create awareness based on the data presented, for example, regarding gendered divisions of labour?) • Look at the "hidden curriculum" (exclusion of particular content) that might reinforce stereotypes about gender, ethnicity, race, class and power relations [for an explanation of the "hidden curriculum" see, Chapin (2021)] • Pose gender-sensitive questions during each step of creating the curriculum (in order to introduce gender related content) • Devote at least one class to the gender dimensions of your course's main topic • Review existing teaching and learning materials using a gender lens: How many times do women/men appear in the material? What roles are they playing? Are both women and men engaged in **doing**, not just watching or assisting? • Examine a course outline you are familiar with: Are gender issues addressed? Are there gender stereotypes? Is it gender-blind, and how does gender-blindness affect the teaching and learning positively and negatively? (Feel free to add your own examples)	• Ensure that a gender aspect is included as a requirement for student presentations and projects • Co-develop learning materials with your students that depict both genders performing the same activities and roles (Feel free to add your own examples)

	WHAT YOU CAN DO AS A FACILITATOR OF LEARNING YOURSELF	WHAT YOU CAN DO WITH YOUR STUDENTS
GENDER-RESPONSIVE CLASSROOM INTERACTION	• Reflect on how many female/male academics/ guest lecturers are invited for visiting lectures during your course • Reflect on whether students of different genders are attracted to take your course • Make positive remarks about the capabilities or positive characteristics of women and men, and avoid comments about personal appearance • Cultivate a friendly, open and approachable persona so both female and male students feel comfortable seeking assistance or guidance on academic and personal issues • Give examples of gender stereotype statements/stories and non-stereotypes (within the context of your course) • Move and/or position yourself within the classroom so that both female and male students can have eye contact with you • Exercise active listening skills and allow students enough time to answer or ask questions and do not interrupt them mid-way • Note which students are making important points in plenary/ group work and ensure she or he is credited for the point being made • Plan, in advance, to ask substantive questions to both female and male students equally • Extend deadlines for the completion of individual assignments, or project tasks etc. if particular students have family/ household responsibilities • Take time to understand the personality traits, learning abilities, histories and aspirations of your students (even if at a general level). Take into account student characteristics and watch out for specific needs of students and address them within the learning space • Use facilitation techniques to support your students in recognising and identifying gender stereotypes, gender bias, lack of/ under representation etc. (e.g. how would the priorities and/or motivations differ if the manager was a female or male?)	• Encourage and be willing to receive feedback from your students to improve the teaching and learning process – particularly feedback from a female student to a male teacher (she may be socialised not to ask questions of a man or not to answer back) • Encourage your students to express each other's (and their own) strengths without looking at gender • Challenge negative gender-based behaviour within the classroom by students, for example, teasing, abusive language and gestures, stereotyping etc. (Feel free to add your own examples)

	WHAT YOU CAN DO AS A FACILITATOR OF LEARNING YOURSELF	WHAT YOU CAN DO WITH YOUR STUDENTS
GENDER-RESPONSIVE CLASSROOM INTERACTION (CONTINUED)	• Give examples of how you, or people you know, like to do things that do not conform to gender stereotypes • Encourage and provide positive feedback to your male and female students, including when they demonstrate positive behaviours that are not always associated with their gender (e.g. a female student being assertive or a male student being nurturing) • Ensure you take any comments about harassment or discrimination from students seriously and sensitively. Follow the protocols set out within your institution (Feel free to add your own examples)	

	WHAT YOU CAN DO AS A FACILITATOR OF LEARNING YOURSELF	WHAT YOU CAN DO WITH YOUR STUDENTS
GENDER RESPONSIVE CLASSROOM MANAGEMENT	• Assign the roles of gender "monitors" or "champions" to one male and one female student to monitor and report back on adherence to the learning contract (see opposite column) • Break your class into small groups to promote better participation of male and female students. Be careful of the composition and ensure that the groups are as balanced as possible • Group your students in ways that do not rely on gender – e.g. table groups, letters in their names, numbering • Actively encourage equal participation and involvement of both female and male students in your class activities • Ensure equal participation by female and male students in activities such as delivering presentations (not simply preparing slides and/or taking notes on the whiteboard) • Assign male and female students different (non-traditional) roles within your classroom and project activities (e.g. male students act as note takers and female students in leadership roles) • Build in sufficient time for plenary and feedback to allow quieter, more introverted students to process their thoughts and build the confidence to contribute • When managing feedback in plenary, invite a female student to contribute their ideas first (this has proven to encourage more female students to participate) (Feel free to add your own examples)	• Develop a learning contract (ground rules) in collaboration with your students to ensure that gender needs, participation, respect etc. are championed within the learning space (Feel free to add your own examples)

	WHAT YOU CAN DO AS A FACILITATOR OF LEARNING YOURSELF	WHAT YOU CAN DO WITH YOUR STUDENTS
GENDER RESPONSIVE CLASSROOM SET UP	• Organise your female students so that they are sitting in the centre and towards the front of the class, rather than at the back or in corners, which discourages them from speaking out • Ensure that both female and male students have equal access to and use of equipment, textbooks, library, laboratory, computers etc. • If there is a shortage of learning materials, ensure that they are distributed equally to female and male students • Display/make very visible on walls etc. learning materials and visual aids that are gender responsive and/or send positive gender messages (Feel free to add your own examples)	• Agree with your students at the beginning of the course (e.g. as part of the learning contract) how seating arrangements will be organised to ensure that all students are encouraged to contribute (Feel free to add your own examples)

	WHAT YOU CAN DO AS A FACILITATOR OF LEARNING YOURSELF	WHAT YOU CAN DO WITH YOUR STUDENTS
GENDER-RESPONSIVE LANGUAGE	• Phrase questions to reflect gender representation – use names of both men and women, use both male and female characters • Use language that reinforces positive gender attitudes, e.g. use terms and expressions – and tone of voice – that conveys that female students are just as intelligent as male students and that they are expected to perform just as well as male students • Use encouraging and inclusive language in the classroom, e.g. avoid using gender-specific pronouns where possible • Use gender-inclusive terms such as "firefighter" instead of "fireman" or "flight attendant" rather than "airline hostess" • Encourage female students to take STEM subjects and highlight the relevance and interest of these subjects to their lives and their families and communities • Be mindful of non-verbal communication (e.g. rolling of eyes, shaking head, frowning) and how it might be interpreted by female and male students • Be mindful of behaviours such as winking, touching and brushing as these can be interpreted in the wrong way • Pay attention to language used to describe the course and how this might discourage/ encourage a particular gender from taking the course over another (e.g. findings show that women are more likely to choose STEM courses related to society and the environment, such as medical sciences) (Feel free to add your own examples)	• Agree with your students at the beginning of the course (e.g. as part of the learning contract) that together you will respectfully challenge any gender-biased language (Feel free to add your own examples)

The following toolkits have been drawn upon to inform this resource. You may wish to refer to them to know more about this subject.

AQU Catalunya. 2018. *General Framework for Incorporating the Gender Perspective in Higher Education Teaching*: www.aqu.cat/doc/doc_21331700_1.pdf – Drawn on in particular for the section on gender-responsive learning outcomes.

Association of African Universities. 2006. *A Toolkit for Mainstreaming Gender in Higher Education in Africa*, Association of African Universities: https://aau.org/past-projects/mainstreaming-gender-in-higher-education-in-africa/ – Drawn on in particular for the section on gender-responsive teaching and learning materials.

Frei, S., & Leowinata, S. 2014. *Gender Mainstreaming Toolkit for Teachers and Teacher Educators, Commonwealth of Learning*: www.ungei.org/sites/default/files/Gender-mainstreaming-toolkit-for-teachers-and-teacher-educators-2014-eng.pdf – Drawn on in particular for the sections on gender-responsive teaching and learning methodologies and activities; and gender-responsive teaching and learning materials.

IBE-UNESCO. 2017. *Training Tools for Curriculum Development: A Resource Pack for Gender-Responsive STEM Education*, International Bureau of Education: www.ungei.org/sites/default/files/Resource-Pack-Gender-Responsive-STEM-Education-2017-eng.pdf – Drawn on in particular for the sections on gender-responsive teaching and learning materials; and gender-responsive language.

Mlama, P., Dioum, M., Makoye, H., Murage, L., Wagah, M., & Washika, R. 2005. *Gender Responsive Pedagogy (GRP): A Teacher's Handbook*, Forum for African Women Educationalists: https://issuu.com/fawe/docs/gender_responsive_pedagogy_-_a_teac – Drawn on in particular for the sections on gender-responsive teaching and learning methodologies and activities; gender-responsive teaching and learning materials; gender-responsive classroom interaction; gender-responsive classroom management; gender-responsive classroom set up, and gender-responsive language.

Trbovc, J. M., & Hofman, A. 2015. *Toolkit for Integrating Gender-Sensitive Approach into Research and Teaching*, Garcia Working Paper 6, University of Trento: http://garciaproject.eu/wp-content/uploads/2015/12/GARCIA_working_paper_6.pdf – Drawn on in particular for the sections on future gender-responsive professionals; gender-responsive assessment and evaluation; gender-responsive teaching and learning methodologies and activities; gender-responsive teaching and learning materials; and gender-responsive classroom interaction.

Additional references

Chapin, J. 2021. *Untangling the impact of gender in the 'hidden curriculum'*. http://blog.inasp.info/untangling-the-impact-of-gender-in-the-hidden-curriculum/,

RECOMMENDED RESOURCES

FOUNDATIONS OF TEACHING AND LEARNING

Bain, K. 2012. *What the Best College Teachers Do* . Cambridge, MA: Harvard University Press.

Written by the renowned educator Ken Bain, this book is the conclusion of a 15-year study of nearly 100 college teachers in a wide variety of fields and universities, offering valuable insights for all facilitators of learning. The findings reveal that it's not what teachers (in our case facilitators of learning) do, it's what they understand. Lesson plans and lecture notes matter less than the special way teachers comprehend the subject and value human learning. Most of all, they believe two things fervently: that teaching matters and that students can learn.

Bransford, J. D., Brown, A. L., & Cocking, R. R. 2000. *How people learn: Brain, mind, experience, and school: Expanded edition*. National Academies Press.

This book examines the findings from many branches of science on how people learn and their implications for what we teach, how we teach it, and how we assess what students learn. The book uses exemplary teaching to illustrate how approaches based on what we now know result in in-depth learning. This new knowledge calls into question concepts and practices firmly entrenched in our current education system. Some of the topics include:

- How existing knowledge affects what people notice and how they learn.
- What the thought processes of experts tell us about how to teach.
- Learning needs and opportunities for teachers.
- A realistic look at the role of technology in education.

Ramsden, P. 2003. *Learning to teach in higher education* (2nd ed.). New York: Routledge.

This highly regarded book is a solid introduction to the practice of university teaching and its underlying theory based on extensive research and wisdom of practice in higher education. The first part of the book provides an outline of the experience of teaching and learning from the student's point of view, out of which grows a set of principles for effective teaching in higher education. Part two shows how these ideas can enhance educational standards, looking in particular at four key areas facing every teacher in higher education:

- organising the content of undergraduate courses,
- selecting teaching methods,
- assessing student learning, and
- evaluating the effectiveness of teaching.

Case studies of exemplary teaching are used throughout to connect ideas to practice and to illustrate how to ensure better student learning. The final part of the book looks in more detail at appraisal, performance indicators, accountability, and educational development and training.

Shulman, L. S., & Wilson, S. M. 2004. *The wisdom of practice: Essays on teaching, learning, and learning to teach*. San Francisco: Jossey-Bass.

A pioneer in the field of teaching and teacher research, Shulman is one of the most widely cited scholars in education. Shulman's work and thinking have long influenced teachers and researchers. This book examines questions such as: What do teachers need to know in order to teach well? How important is the depth and quality of teachers' content knowledge as a critical aspect of their ability to teach? How can teachers best be educated, and how can we assess their accomplishments as teachers?

COURSE DESIGN AND DEVELOPMENT

Biggs, J. B. 2011. *Teaching for quality learning at university: What the student does*. Berkshire, UK: Open University Press, McGraw–Hill Education.

This widely cited, celebrated book explains the concept of constructive alignment used in implementing outcomes-based education. Constructive alignment identifies the desired learning outcomes and helps teachers design the teaching and learning activities that will help students to achieve those outcomes and to assess how well those outcomes have been achieved. Each chapter includes tasks that offer a "how-to" manual to implement constructive alignment in your own teaching practices. This new edition draws on the authors' experience of consulting on the implementation of constructive alignment in Australia, Hong Kong, Ireland, and Malaysia, including a wider range of disciplines and teaching contexts.

Fink, L. D. 2013. *Creating significant learning experiences: An integrated approach to designing college courses* (2nd ed.). San Francisco: Jossey-Bass.

This recently updated, highly regarded book provides busy faculty with invaluable conceptual and procedural tools for course design. Step by step, Fink shows how to use a taxonomy of significant learning and systematically combine the best research-based practices for learning-centred teaching with a teaching strategy in a way that results in powerful learning experiences.

ASSESSING LEARNING AND TEACHING

Many of the books listed in the other categories offer practical guidance on assessing learning as well as teaching.

Suskie, L. 2009. *Assessing student learning: A common sense guide* (2nd ed.). San Francisco: Jossey-Bass.

The first edition of *Assessing Student Learning* has become the standard reference for college faculty and administrators who are charged with the task of assessing student learning within their institutions. The second edition of this landmark book offers the same practical guidance and includes expanded coverage of vital assessment topics such as promoting an assessment culture, characteristics of good assessment, audiences for assessment, organising and coordinating assessment, assessing attitudes and values, setting benchmarks and standards, and using results to inform and improve teaching, learning, planning, and decision making.

Walvoord, B. E., & Anderson, V. J. 2013. *Effective grading: A tool for learning and assessment in college*. San Francisco: Jossey-Bass.

The book has become a classic in the field. It provides a proven, hands-on guide for evaluating student work and offers an in-depth examination of the link between teaching and grading. This thoroughly revised and updated edition includes a wealth of new material including:

- A sample syllabus with goals, outcomes, and criteria for student work.
- Additional information on grading group work, portfolios, and service-learning experiences.
- New strategies for aligning tests and assignments with learning goals.
- Current thought on assessment in departments and general education, using classroom work for programme assessments, and using assessment data systematically to “close the loop”.
- Material on using the best of classroom assessment to foster institutional assessment.
- Expanded integration of the use of technology and online teaching.
- New case examples from colleges and universities, including community colleges.

TEACHING AND LEARNING STRATEGIES

Bean, J. C. 2011. *Engaging ideas: The professor's guide to integrating writing, critical thinking, and active learning in the classroom*. San Francisco: Jossey-Bass.

John Bean offers a practical nuts-and-bolts guide for designing writing and critical thinking activities and incorporating them into courses across all disciplines in ways that stimulate inquiry, exploration, discussion, and debate. This new edition incorporates new materials dealing with genre and discourse community theory, quantitative/scientific literacy, blended and online learning, and other current issues.

Brookfield, S. D., & Preskill, S. 1999. *Discussion as a way of teaching: Tools and techniques for democratic classrooms* (2nd ed.). San Francisco: Jossey-Bass.

This landmark book shows how to plan, conduct, and assess classroom discussions and suggests exercises for starting discussions, strategies for maintaining their momentum, and ways to elicit diverse views and voices. This revised edition expands on the original and contains information on adapting discussion methods in online teaching, on using discussion to enhance democratic participation, and on the theoretical foundations for the discussion exercises described.

Michaelsen, L. K., Knight, A. B., & Fink, L. D. (eds.). 2002. *Team-based learning: A transformative use of small groups*. Sterling, VA: Stylus Publishing.

This book describes team-based learning (TBL), an unusually powerful and versatile teaching strategy that enables teachers to take small group learning to a whole new level of effectiveness. It is the only pedagogical use of small groups that is based on a recognition of the critical difference between "groups" and "teams", and intentionally employs specific procedures to transform newly formed groups into high-performance learning teams.

The book offers a complete guide to implementing TBL in a way that will promote the deep learning all teachers strive for. This is a teaching strategy that promotes critical thinking, collaboration, mastery of discipline knowledge, and the ability to apply it.

To learn the strategy, access a wealth of resources, and join a community of practitioners, visit the website: www.teambasedlearning.org

Ritchhart, R., Church, M., & Morrison, K. 2011. *Making thinking visible: How to promote engagement, understanding, and independence for all learners*. San Francisco: Jossey-Bass.

Visible thinking is a research-based approach to teaching thinking begun at Harvard's Project Zero, which develops students' thinking dispositions while at the same time deepening their understanding of the topics they study.

This book provides a varied collection of practices, including thinking routines and easy-to-implement classroom strategies that:

- Help direct student thinking and structure classroom discussion.
- Can be applied with students at all grade levels and in all content areas.

The book also comes with a DVD of video clips featuring visible thinking in practice in different classrooms. You can check out the thinking routines and a wealth of related resources at Harvard's Project Zero site: www.pz.harvard.edu/resources/pz-connect-visible-thinking-resources

Weimer, M-E. 2002. *Responding to resistance. In Learner-centered teaching: Five key changes to practice*. San Francisco: Jossey-Bass, 149–166.

This book explores the origins and implications of student and faculty resistance to learner-centred teaching and offers ideas for responding creatively.

ONLINE TEACHING AND LEARNING

Bates, A.W. (Tony). 2019. *Teaching in a digital age: Guidelines for designing teaching and learning.*

The book examines the underlying principles that guide effective teaching in the age of technology. It provides a framework for making decisions about teaching and learning, while taking into account differences in the subjects and the uniqueness of each teacher. Available for free: https://opentextbc.ca/teachinginadigitalage

Graham, C., Cagitay, K., Lim, B-R, Craner, J., & Duffy, T. 2001. Seven principles of effective teaching: A practical lens for evaluating online courses. *The Technology Source*, 30 (5), 50. Retrievable from http://technologysource.org/article/seven_principles_of_effective_teaching

This resource offers guidelines for good instructional practice in online courses.

Ko, S., & Rossen, S. 2017. *Teaching online: A practical guide* (4th ed.). New York: Routledge.

The book is a very practical, concise guide for those who wish to design and teach courses online or in blended mode, whether you are new to the adventure or looking for ways to renew or re-invigorate your practice. The book is highly browsable and much expanded in its latest (4th) edition. It covers such practical topics as:

- Designing and developing your course.
- Creating an effecting online syllabus.
- Building and sustaining an online classroom.
- Creating and incorporating learning activities in the online environment.
- Copyright, intellectual property, and open educational resources.
- Working with existing and emergent technologies.
- Working with other to develop a course.
- Finding resources and support at your institution.

Laurillard, D. 2012. *Teaching as a design science: Building Pedagogical patterns for learning and technology*. Routledge.

This book is a guide to embracing teaching as a design profession. Every day, teachers design and test new ways of teaching, using learning technology but those innovations are rarely shared with others. This book encourages making those pedagogic designs explicit and shareable. The book describes in depth the six learning types from the conversational framework (acquisition, inquiry, discussion, practice, production, and collaboration).

APPENDICES

APPENDIX A. SUMMARY OF APPENDICES

	Title of appendix	Brief description (where relevant)
A	Summary of appendices	
B	Glossary of terms	The glossary includes definitions of the key terms used in the course redesign process and workshop.
C	Personal reflection form	During a designated session on Days 1–5, workshop facilitators ask you to complete a soft copy of this personal reflection form. One copy of the form should be completed for each day. The purpose of this daily personal reflection is to help you critically reflect over what has been happening in the workshop and in any readings, as it pertains to your life and your experiences throughout the workshop. You need to enter comments in the forms in soft copy, not as summaries of what took place in the workshop or in the reading assignments, but as reflections on your reactions to what you have encountered.
D	Key point summary of Day 1 compulsory reading	This is a summary of key points in the assigned reading for Day 1. This should not replace the reading of the full version. It has been developed for a specific activity during the Day 1 session "Compulsory reading: How people learn".
E	Key point summary of Day 4 compulsory reading	This is a summary of key points in the assigned reading for Day 4. This should not replace the reading of the full version. It has been developed for a specific activity during the Day 4 session "Compulsory reading: Unpacking thinking".
F	Evidence document for programme alignment, course redesign and transformative learning	A soft copy of this document should have already been introduced and shared with you at the programme alignment workshop. Just in case this did not happen, a copy has been included again as an appendix. You need to capture (in soft copy) the key evidence relevant to the redesign of your course, which should help you in the completion of your standard university course outline template on Day 4 of the course redesign workshop. You are expected to have this soft copy document with you at all times during the programme alignment, transformative learning, and course redesign workshops, and to complete the relevant sections as you progress through your redesign learning journey across the three workshops.
G	Learning designer guide	This is a simple step-by-step guide on how to use the online tool "Learning Designer" to accompany a workshop video of the same name. You can use these two resources during the Day 5 sessions, which look a little more closely at the design of learning experiences.

APPENDIX B. GLOSSARY OF TERMS FOR THE COURSE REDESIGN FOR SIGNIFICANT LEARNING AND TRANSFORMATION WORKSHOP

TERM	DEFINITION
Active learning	Active learning concerns itself with 'creating an environment where students can take charge of their learning, see relevance in it and engage in it, instead of having information just delivered to them' (Walsh & Inala, 2010) "Active learning" is an umbrella term for learning and teaching methods that put the student in charge of their own learning through meaningful activities. They think about and apply what they are learning, in a deliberate contrast to passive learning. Active learning — University of Leicester
Affective domain	The affective domain is one of the three domains in Bloom's Taxonomy. This domain involves our feelings, emotions and attitudes. It is about the manner in which we deal with things emotionally such as feelings, values, appreciation, enthusiasm, motivations and attitudes. The domain as categorised in Krathwohl-Bloom's Taxonomy includes five sub-domains: receiving, responding, valuing, organisation and characterisation by value.
Analytic rubrics	Analytic rubrics separate different assessment criteria and address them comprehensively. In a horizontal assessment rubric, the top axis includes values that can be expressed either numerically or by letter grade, or a scale from exceptional to poor (or professional to amateur, and so on). The side axis includes the assessment criteria for each component. Analytic rubrics can also permit different weightings for different components. Rubrics: Useful Assessment Tools | Centre for Teaching Excellence | University of Waterloo (uwaterloo.ca)
Asynchronous learning	Asynchronous learning is a student-centred teaching method widely used in online learning. Its basic premise is that learning can occur in different times and spaces particular to each learner, as opposed to synchronous learning at the same time and place with groups of learners and their instructor [in our case their facilitator of learning], or one learner and their instructor. In asynchronous learning, instructors usually set up a learning path, which students engage with at their own pace. Asynchronous vs. Synchronous Learning: A Quick Overview | Bryn Mawr College
Authentic assessment	Authentic assessment evaluates whether the student can successfully transfer the knowledge and skills gained in the classroom to various contexts, scenarios and situations. In many ways, it can be considered the difference between measuring what students know vs. how they can apply that knowledge. These types of assessments will vary by discipline but typically require students to complete a project. For example, you may ask students to apply an engineering problem to a real world example, develop a web application, design a model, critically review case studies, or create multimedia presentations. Authentic Assessment | Institute for Teaching Excellence (njit.edu)

TERM	DEFINITION
Backward-looking assessment	Backward-looking assessment is when the facilitators of learning look back at what they have taught in a unit and assess students on how much content they have learnt (Fink, 2013).
The Big Dream for the students taking the course	This is a coherent expression (in form of a statement) of what the student taking the course 1) must know, 2) so that they are able to do, and finally, 3) so that they can become that intended expert or professional on completing the course. This statement should show clear alignment with one or more of the programme learning outcomes.
Blended learning	Dziuban et al., 2004, referred to blended learning as "a pedagogical approach that combines the effectiveness and socialization opportunities of the classroom with the technologically enhanced active learning possibilities of the online environment…" Dziuban, C., Hartman, J., & Patsy, M. (2004). Blended learning, Educause Centre for Applied Research. *Research Bulletin 2004*, (7), 1–12.
Bloom's Taxonomy	Bloom's Taxonomy is a hierarchical ordering of cognitive skills that can, among countless other uses, help academic teaching staff teach and students learn. For example it can be used to create assessments, plan learning sessions, evaluate assignments, design online courses and much more.
Cognitive domain	This is the mental skills domain, it is where you process information, create knowledge and think. It tends to be the domain that people most link to learning. Bloom's Taxonomy classifies thinking according to six cognitive levels of complexity: knowledge, comprehension, application, analysis, synthesis and evaluation.
Concept	A concept is a mental construct that is timeless (can be taken from any period of time), universal (can be taken from any culture) and transferable (can relate to many other disciplines and aspects of life). Concepts can be used to categorise the content of a course – the understanding of the concept becomes deeper the more examples are studied.
Constructive alignment	Constructive alignment is an outcomes-based approach to teaching in which the learning outcomes that students are intended to achieve are defined before teaching takes place. Teaching and assessment methods are then designed to best achieve those outcomes and to assess the standard at which they have been achieved (Biggs, 2014).
Content-centred approach	The content-centred approach (which focuses solely on cognitive learning) is where facilitators of learning are challenged by the question of how much of the traditional and additional topics they can cover in the time available (Fink, 2013).
Course concept map	A course concept map is a coherent visual representation of the major concepts in a course and the significant relationships between them.

TERM	DEFINITION
Critical thinking	While there is widespread consensus on its importance, the definition of critical thinking is highly debated, two definitions have been included here for you to consider: The ability to "process and utilise new information … reason objectively and draw objective conclusions from various types of data; evaluate new ideas and techniques efficiently; become more objective about beliefs, attitudes, and values; evaluate arguments and claims critically; and make reasonable decisions in the face of imperfect information" (Pascarella & Terenzini, 2005, p. 155). Pascarella, E. T., & Terenzini, P. T. (2005). How college affects students. (2nd ed.). San Francisco, CA: Jossey-Bass. "…considering an issue from multiple perspectives, critically examining evidence (and attending to information that may run counter to or disconfirm initial ideas), valuing claims that are backed by appropriate and adequate evidence, reasoning objectively and dispassionately, and arriving at informed judgments and decisions" (Chun, 2010, p. 23). Chun, M. (2010). Taking teaching to (performance) task: Linking pedagogical and assessment practices. Change: The Magazine of Higher Learning 42 (2), 22–29.
Critical reflective questioning	Critical reflective questioning is a form of questioning concerned with the fostering of reflection rather than the eliciting of information. The questioning process helps us to identify and assess our deeply held assumptions, about our knowledge, the way we perceive events and issues, our beliefs, feelings, and actions.
Diagnostic assessment	Diagnostic assessment is a type of assessment that examines students' strengths, weaknesses, knowledge and skills before a learning programme or a smaller unit of study begins. It is sometimes referred to as "pre-assessment" and can help academic teaching staff in the design and planning of meaningful and efficient teaching and learning experiences in their course (Biggs and Tang, 2007).
Educative assessment	Educative assessment is an assessment that itself educates. It is a concept which suggests that facilitators of learning should design assessment activities that go beyond simply telling them whether students "got it" or not but rather design assessment activities that actually help students learn more (Fink, 2013).
Empowerment	Empowerment is a process that enables a person to gain control of their lives. It involves awareness-raising, building self-confidence, expansion of choices, increased access to and control over resources and actions to transform the structures and institutions which reinforce and perpetuate (gender) discrimination and inequality. No one can empower another: only the individual can empower herself or himself to make choices or to speak out. However, institutions can support processes that can nurture self-empowerment of individuals or groups. https://trainingcentre.unwomen.org/mod/glossary/view.php?id=36&mode=letter&hook=E&sortkey=&sortorder=asc

TERM	DEFINITION
Facilitator of learning	A facilitator of learning is an individual who does not operate under the traditional concept of teaching i.e. adopts approaches that are teacher-directed and where students are taught in a manner that is conducive to sitting and listening. In contrast, a facilitator of learning guides and assists students in learning for themselves, for example picking apart ideas, forming their own thoughts about them, and generating new knowledge through critical reflection and dialogue. You will notice that in this workshop, the term "facilitator of learning" is being used over terms such as "instructor", "teacher" and "lecturer". The reason for this is that it is more compatible with the learning philosophy and pedagogy being promoted through this workshop.
The faculty promise to the students on the programmes	This is a coherent expression (in the form of a statement) of who the student will become after completing the programme, based on the Faculty Vision and Mission and aligned to the University Promise.
Feminism	Is a movement for social, cultural, political and economic equality of women and men. Feminism is not just about women or a pro-women agenda, but it is about a pro-women agenda that seeks to transform power relations in a way that lifts up all people. www.icrw.org/wp-content/uploads/2016/12/ICRW_FemUNRecommendations_WebReady_v5.pdf; and https://en.wikipedia.org/wiki/History_of_feminism
Formative assessment	Formative assessment is used to monitor how students progress towards achieving learning outcomes during the course. It is also known as "assessment for (or as) learning" and provides ongoing feedback that can be used by facilitators of learning to improve their teaching and by students to improve their learning. Formative assessments are generally low stakes, which means that they have low or no point value. Examples of formative assessments include asking students to draw a concept map to represent their understanding of a topic or submitting one or two sentences identifying the main point of a lecture. Formative vs Summative Assessment - Eberly Center - Carnegie Mellon University (cmu.edu)
Forward-looking assessment	Forward-looking assessment is when the facilitator of learning looks forward beyond the end of the course by creating realistic life or work situations (including any relevant gender aspects) and asks students to use what they have learned and/or are learning to address questions or make decisions related to those situations (Fink, 2013).
Gender	Refers to the roles, activities, attitudes, feelings, and behaviours that a given culture associates with a person's biological sex; in other words, that a given society considers appropriate for men and women. Gollifer, S., Gorman, S., Hamisi, M., Fabian, F., Kilonzo, R., Bottomley, R., Walker, J., Dennis, A., Chapin, J., Reggev, M., & Friis Laustsen, C. (2018). Gender mainstreaming in higher education toolkit. INASP. www.inasp.info/gendertoolkit

TERM	DEFINITION
Gender bias	Refers to the unfair difference in treatment of women, girls, men and boys because of their sex. Gollifer, S., Gorman, S., Hamisi, M., Fabian, F., Kilonzo, R., Bottomley, R., Walker, J., Dennis, A., Chapin, J., Reggev, M., & Friis Laustsen, C. (2018). Gender mainstreaming in higher education toolkit. INASP. www.inasp.info/gendertoolkit.
Gender equality	Equality between men and women does not mean that women and men have to become the same, but that their rights, responsibilities and opportunities will not depend on whether they were born male or female. Pavlic, B., Ruprecht, L., & Sam-Vargas, S. (2000). Gender equality and equity: A summary review of UNESCO's accomplishments since the Fourth World Conference on Women, Beijing 1995. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000121145
Gender equity	Fairness of treatment for men and women according to their respective needs. This may include equal treatment or treatment that is different, but which is considered equivalent in terms of rights, benefits, obligations, and opportunities. Pavlic, B., Ruprecht, L., & Sam-Vargas, S. (2000). Gender equality and equity: A summary review of UNESCO's accomplishments since the Fourth World Conference on Women, Beijing 1995. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000121145
Gender mainstreaming	Is the process of assessing implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral part of the design, implementation, monitoring and evaluation of all legislation, policies and programmes so that women and men benefit equally and inequality is not perpetuated. https://unesdoc.unesco.org/ark:/48223/pf0000121145
Gender responsive	A gender-responsive policy or programme considers gender norms, roles and inequality with measures taken to actively reduce their harmful effects. www.who.int/gender-equity-rights/knowledge/glossary/en

TERM	DEFINITION
Gender-responsive pedagogy	Refers to teaching and learning processes that pay attention to the specific learning needs of female students and male students. Adapted from Mlama, P., Dioum, M., Makoye, H., Murage, L., Wagah, M., & Washika, R. (2005). *Gender responsive pedagogy (GRP): A teacher's handbook*. Forum for African Women Educationalists (FAWE). https://issuu.com/fawe/docs/gender_responsive_pedagogy_-_a_teac. The following definition of gender-responsive pedagogy was developed by the TESCEA project, which builds on the FAWE definition: • The learning needs of male and female learners are addressed in teaching and learning processes (inside and outside of the classroom). • Teaching staff are gender-aware and gender-responsive in their planning and facilitation of courses, and are continuously reflecting and adapting.
Habit of mind	A habit of mind means having a disposition towards behaving intelligently when confronted with questions and problems, the answers to which are not immediately known. Thus, as facilitators of learning we are interested in focusing on student performance under those challenging conditions that demand strategic reasoning, insightfulness, perseverance, creativity, and craftsmanship to resolve a complex problem or question. What Are Habits of Mind? – The Institute for Habits of Mind (habitsofmindinstitute.org)
Hard skills	Hard skills are technical or subject-specific skills which require a dedicated course or teaching unit. They can be understood as the ability to research or carry out specific tasks that require specialist knowledge and/or experience, for example, engineering design, credit risk assessment or software programming. Gosling. D., "Supporting student learning" in Fry, H., Ketteridge, S. & Marshall, S. (2008). A handbook for teaching and learning in higher education: enhancing academic practice.–3rd ed. Routledge
Higher-order thinking skills	They refer to skills that go beyond merely replicating information and emphasise the development of thinking skills in the top three levels of Bloom's Taxonomy. Higher-order thinking skills are thought to be harder to teach and learn than mere facts, but are ultimately more important for developing the critical and creative thinking and problem-solving skills of students.
Holistic rubrics	Holistic rubrics group several different assessment criteria and classify them together under grade headings or achievement levels. Rubrics: Useful Assessment Tools | Centre for Teaching Excellence | University of Waterloo (uwaterloo.ca)
Ideal university graduate profile	The desired competencies, core values and habits of mind, based on the University Vision and Mission, the TSL soft skills matrix and feedback (assessment of needs) from 1) industry 2) the community 3) students and 4) other stakeholders, that the graduates of the university should exhibit in their life and in the world of work.

TERM	DEFINITION
Learner-centred education	Learner-centred education is a pedagogical approach that gives learners, and demands from them, a relatively high level of active control over the content and process of learning. What is learnt, and how, are therefore shaped by learners' needs, capacities and interests (Schweisfurth, 2014).
Learning-centred approach	The learning-centred approach is where facilitators of learning respond to the question of what students should learn by describing the different kinds (or dimensions) of learning: foundational knowledge, application, integration, human dimension, caring and learning how to learn (Fink, 2013)
Learning design	Learning design is "a methodology for enabling teachers/designers [in our case facilitators of learning] to make more informed decisions in how they go about designing learning activities and interventions, which is pedagogically informed and makes effective use of appropriate resources and technologies. This includes the design of resources and individual learning activities right up to curriculum-level design. A key principle is to help make the design process more explicit and shareable." (Conole, 2013) It is worth adding that learning design puts the learner rather than the facilitator of learning at the centre of the design process and encourages the facilitators of learning or learning designers to put themselves in the learners' shoes. So learner experience is at the heart of the process.
Learning outcome	A learning outcome is a clear concise statement that describes what a student should be able to know, do, and value by the end of a programme, course or topic. Learning outcomes should not just focus on content, but should emphasise how the student would apply what they have learned in applicable contexts. A learning outcome identifies the knowledge, skills and attitudes a student should be able to demonstrate, how they will do so, and in what context or at what level they should do so (Biggs and Tang, 2007).
Metacognition	Metacognition refers to people's abilities to predict their performances on various tasks (e.g. how well they will be able to remember various stimuli) and to monitor their current levels of mastery and understanding (Brown, 1975; Flavell, 1973). It entails learners thinking about thinking and/or making thinking visible (Ritchhart et al., 2011).
Muddiest point	This is a formative assessment method where students are asked to write down the most difficult or confusing point of a lesson, topic or concept. Angelo. T. A., & Cross. P. K (1993). *A classroom assessment technique: A handbook for college teachers*.

TERM	DEFINITION
Pedagogy	A concept that embraces virtually all teaching and learning processes. Within the context of classroom settings, pedagogy is a term that includes *what* is taught (the content), *how* teaching takes place (the teaching process) and *how what* is taught is taught (the teaching methods). Chapin, J., & Warne, V. (2020). *Gender responsive pedagogy in higher education: A framework*. INASP. https://www.inasp.info/publications/gender-responsive-pedagogy-higher-education. Adapted from Mlama, P., Dioum, M., Makoye, H., Murage, L., Wagah, M., & Washika, R. (2005). *Gender responsive pedagogy (GRP): A teacher's handbook*. Forum for African Women Educationalists. https://issuu.com/fawe/docs/gender_responsive_pedagogy_-_a_teac.
Peer assessment	Peer assessment involves students taking responsibility for assessing the work of their peers against set assessment criteria. They can therefore be engaged in providing feedback to their peers (sometimes referred to as peer review), summative grades (moderated by the facilitator of learning or their colleagues), or a combination of the two. Peer assessment is particularly useful in helping students to develop judgement skills, critiquing abilities and self-awareness. Peer assessment - Engage in Assessment - University of Reading
Peer learning	Peer learning is a teaching and learning strategy which encompasses a broad sweep of activities. For example, researchers from the University of Ulster identified 10 different models of peer learning (Griffiths, Housten, & Lazenbatt, 1995). These ranged from the traditional model in which senior students tutor junior students, to the more innovative learning cells, in which students in the same year form partnerships to assist each other with both course content and personal concerns. Other models involved discussion seminars, private study groups, parrainage (a buddy system) or counselling, peer-assessment schemes, collaborative project or laboratory work, projects in different sized (cascading) groups, workplace mentoring and community activities. Adapted from: What is Peer Learning and Why is it Important? | Tomorrow's Professor Postings (stanford.edu)
Psychomotor domain	Psychomotor domain is one of the three domains in Bloom's Taxonomy. It refers to the use of motor skills, coordination and physical movement. Measurements of learning may be gauged in terms of speed, coordination, dexterity and technique, for example. Simpson's Taxonomy has a focus toward the progression of mastery of a skill from observation to invention.
Reflection (in the context of reflective practice)	Reflection is a deliberate and conscientious process that employs a person's cognitive, emotional and somatic [relating to the body] capacities to mindfully contemplate on past, present or future (intended or planned) actions in order to learn, better understand and potentially improve future actions. Harvey, M., Coulson, D., & McMaugh, A. (2016). Towards a theory of the ecology of reflection: Reflective practice for experiential learning in higher education. *Journal of University Teaching and Learning Practice*, 13(2). http://ro.uow.edu.au/jutlp/vol13/iss2/2

TERM	DEFINITION
Rubric	A rubric is an assessment tool that clearly indicates achievement criteria across all the components of any kind of student work, from written to oral to visual. It can be used for marking assignments, class participation, or overall grades. There are two types of rubrics: holistic and analytical. Rubrics: Useful Assessment Tools | Centre for Teaching Excellence | University of Waterloo (uwaterloo.ca)
Self-assessment	Self-assessment requires students to reflect on their own work and judge how well they have performed in relation to the assessment criteria. The focus is not necessarily on having students generate their own grades, but rather providing opportunities for them to be able to identify what constitutes a good (or poor) piece of work. Some degree of student involvement in the development and comprehension of assessment criteria is therefore an important component of self-assessment. Self-assessment - Engage in Assessment - University of Reading
Sex	Sex refers to a person's biological status and is a fact of human biology: we are born male, female or intersex (this refers to atypical features that usually distinguish male from female such as sex chromosomes, internal reproductive organs and external genitalia). Gollifer, S., Gorman, S., Hamisi, M., Fabian, F., Kilonzo, R., Bottomley, R., Walker, J., Dennis, A., Chapin, J., Reggev, M., & Friis Laustsen, C. (2018). Gender mainstreaming in higher education toolkit. INASP. www.inasp.info/gendertoolkit.
Significant learning	Learning that lasts and has an impact on how students live their lives after the course is over and even after university (Fink, 2013).
Soft skills	Soft skills are generic, transferable skills that do not require a dedicated course or teaching unit, but can be acquired by the student through well-designed activities in the curriculum. They are also referred to as "power skills". They can be skills required in the workplace, irrespective of a specific role, for example, communication, teamwork, critical thinking and problem-solving skills; namely the skills, capabilities and dispositions found in the TSL (soft) skills matrix, first introduced in the Programme Alignment workshop. Gosling. D., "Supporting student learning" in Fry, H., Ketteridge, S. & Marshall, S. (2008). A handbook for teaching and learning in higher education: enhancing academic practice.–3rd ed. Routledge
Summative assessment	The goal of summative assessment is to evaluate student learning at the end of a unit or course by comparing it against some standard or benchmark. It is also known as *assessment of learning*. They are often *high stakes*, which means that they have a high point value. Examples of summative assessments include a midterm exam or a final project. Information from summative assessments can be used formatively when students or faculty use it to guide their efforts and activities in subsequent courses. Formative vs Summative Assessment - Eberly Center - Carnegie Mellon University (cmu.edu)

TERM	DEFINITION
Synchronous learning	Synchronous learning refers to all types of learning in which learners and instructors [in our case facilitators of learning] are in the same place, at the same time, in order for learning to take place. This includes in-person classes, live online meetings when the whole class or smaller groups get together. In synchronous learning, students usually go through the learning path together, accompanied by their instructor who is able to provide support while students are completing tasks and activities. Asynchronous vs. Synchronous Learning: A Quick Overview | Bryn Mawr College
Taxonomy of Significant Learning	The Taxonomy of Significant Learning aims to create meaningful learning experiences in higher education. It is a taxonomy that describes various ways in which learning can be significant. It consists of six interwoven learning dimensions (or kinds of learning): foundational knowledge, application, integration, human dimension, caring and learning how to learn. Each dimension encompasses a unique perspective on the learning process, and when collectively applied to curriculum and course re/design, significant learning occurs (Fink, 2013). Fink, D. (2013). "Chapter 2 - A Taxonomy of Significant Learning." Creating Significant Learning Experiences, Jossey-Bass, page 27-33.
Teaching and learning strategies and activities	Strategies are over-arching orientations that guide design choices at the level of individual activities and assessments. Strong teaching strategies are responsive to a variety of factors in a context, including disciplinary context, and student and staff profiles. Strategies tend to be broader and more generic than activities, while activities focus on the student and the learning they are engaged in and are more detailed and specific. Strategies can include peer learning, group work, real-life projects for example. While activities can sit under the umbrella of a strategy. For example, a strategy might be group work, but within the group work, students could be performing a series of different learning activities at the learning session level such as conducting a literature review (inquiry), discussing the findings (discussion), preparing a presentation to share findings (production), and so on. During this workshop, the focus is more on identifying what approaches will help students reach the learning outcomes, as opposed to differentiating too closely between strategies and activities.
Topic	A topic is a category or class of ideas, which unlike a concept, is more about a specific time, people, thing and/or place. It can often sit comfortably under a number of different concepts.
Transformative learning	By definition, transformative learning is a type of experience that causes a shift in an individual's perspective or attitude. It's based on a learning theory propounded by Jack Mezirow (1978, 1991, 2000) and proposes that learning is "the process of making new interpretations based on the meaning derived out of experience". What this means is that, rather than focusing on surface experiences, transformative learning challenges the simplicity behind learning. Transformative Learning (edapp.com)

TERM	DEFINITION
Transformative Learning Cycle	The 'Transformative Learning Cycle' is a termed coined by Charles Kingsbury of AFELT to refer to teaching and learning that aligns with the four areas of Kolb's (1984) learning styles. The cycle is a matching of Kolb's styles with Mezirow's (1978, 1991, 2000) Transformative Learning theory.
Twenty-first century skills	Twenty-first century skills is a shorthand phrase for the capabilities, dispositions and soft skills, including critical thinking and problem-solving, creativity and imagination, communication, collaboration and digital literacy that will not only help students to lead successful careers in the modern workplace but to become positive contributors to wider society. Students are expected to develop these types of soft skills while learning and generating content in their courses.
The University Promise to the students	This is a coherent expression (in the form of a statement) of whom the student will become after graduating from the university, based on the Ideal University Graduate Profile.

APPENDIX C. PERSONAL REFLECTION FORM

Personal reflection leads us to make meaning from our learning experiences. It helps us to understand the significance of those experiences to us personally on our journey to being better facilitators of learning. Reflection also helps us uncover assumptions we have about teaching and our work as facilitators of learning. This provides us with the evidence to evaluate those assumptions so that we can then challenge our beliefs and values and therefore continue to grow and learn.

The purpose of this daily personal reflection is to help you critically reflect over what has been happening in the workshop and in any readings, as it pertains to your life and your experiences throughout the workshop. Enter your comments as reflections on your reactions to what you have encountered, rather than simply summaries of what took place in the workshop or in the reading assignments.

Complete the form in **soft copy**, one form for each day of the workshop.
The following questions are here to help guide your reflection:

TITLE OF COURSE UNDER REDESIGN:		**REFLECTIONS FOR DAY NO.**	
QUESTION	**RESPONSE**		
What new learning did I experience during today's sessions and activities?			
What did I learn about myself as a learner as I worked through the sessions and activities?			
How did my work in today's sessions and activities challenge my beliefs and values about my teaching?			
What assumptions did I uncover? **What evidence do I need to gather to (in)validate these assumptions?**			
Additional thoughts/insights			

Continue overleaf

Briefly explain how you intend to improve students' learning after this workshop in relation to transformative learning and gender responsiveness. Provide some examples:

Please share any suggestions for improvement for similar workshops in the future:

Any other comments:

APPENDIX D. KEY POINT SUMMARY OF DAY 1 COMPULSORY READING

SOME KEY POINTS FROM:

Bransford, J. D., Brown, A. L., & Cocking, R. R. (eds.) 2000. *How People Learn: Brain, Mind, Experience, and School*. Committee on developments in the science of learning. Washington, D.C.: National Academy Press.

Available at: https://www.nap.edu/read/9853/chapter/3

Ideally everyone should read the reference before Day 1. However, if you have been unable to read it, the following are some key points paraphrased or quoted from the text.

The text discusses teaching practices that align with a "metacognitive approach to learning". Metacognition refers to people's abilities to predict their performances on various tasks, for example, how well they will be able to remember various stimuli, and monitor their current levels of mastery and understanding.

Applying approaches based on this thinking, leads to teaching practices that "focus on meaning making, self-assessment, and reflection on what worked and what needs improving. These practices have been shown to increase the degree to which students transfer their learning to new settings and events". (p. 12)

KEY FINDINGS

1. **"Students come to the classroom with preconceptions about how the world works."** This means that their initial understanding needs to be engaged to grasp new concepts. Otherwise they may learn information just for a test and then "revert to their preconceptions outside the classroom". (pp. 14-15). The book notes that a "critical feature of effective teaching is that it elicits from students their pre-existing understanding of the subject matter to be taught and provides opportunities to build on—or challenge—the initial understanding". (p.15)

2. **"To develop competence in an area of inquiry, students must: (a) have a deep foundation of factual knowledge, (b) understand facts and ideas in the context of a conceptual framework, and (c) organise knowledge in ways that facilitate retrieval and application."** (p.16).

   The reading notes that the ability to plan a task, to notice patterns, to generate reasonable arguments and explanations, and to draw analogies to other problems are all intertwined with factual knowledge. (p.16) As people become more expert in an area then they get better at seeing patterns, relationships, or discrepancies that are not apparent to novices. Their conceptual understanding allows them to identify relevant knowledge and extract a level of meaning from information that is not apparent to novices, and this helps them select and remember relevant information. (pp. 16-17)

3. **"A 'metacognitive' approach to instruction can help students learn to take control of their own learning by defining learning goals and monitoring their progress in achieving them."** (p. 18)

   The reading discusses how children can be taught metacognitive strategies, including the ability to predict outcomes, explain to oneself in order to improve understanding, note failures to comprehend, activate background knowledge, plan ahead, and apportion time and memory. (p. 18) The teaching of metacognitive activities must be incorporated into the subject matter that students are learning and these strategies are not generic across subjects. (p. 19)

IMPLICATIONS FOR TEACHING

1. "Teachers must draw out and work with the pre-existing understandings that their students bring with them." (p.19) Students should be seen as more than vessels to be filled. It is important to give lots of ongoing feedback and to learn to perceive student preconceptions.
2. "Teachers must teach some subject matter in depth, providing many examples in which the same concept is at work and providing a firm foundation of factual knowledge." (p.20) This means that they should teach more in-depth about fewer topics. They should also be familiar with how thinking works in their discipline and assess for depth of understanding.
3. "The teaching of metacognitive skills should be integrated into the curriculum in a variety of subject areas." (p.21) Each discipline uses different internal questions for metacognition and there is no universal best teaching practice.

DESIGNING CLASSROOM ENVIRONMENTS

1. "Schools and classrooms must be learner centered." (p.23) In designing learning spaces it is important to consider students' cultural backgrounds and their preconceptions of what intelligence is.
2. "To provide a knowledge-centered classroom environment, attention must be given to what is taught (information, subject matter), why it is taught (understanding), and what competence or mastery looks like." (p.24)
3. Assessment should be student-friendly and provide opportunity for revision. (p.24)
4. "A community-centered approach [to learning] requires the development of norms for the classroom and school, as well as connections to the outside world, that support core learning values." (p.25) Teachers promote intellectual camaraderie and cooperation, link in-class learning to the rest of students' lives.

APPENDIX E. KEY POINT SUMMARY OF DAY 4 COMPULSORY READING

Ritchhart, R., Church, M., & Morrison, K. 2011. Chapter 1. In Making Thinking Visible: How to Promote Engagement, Understanding, and Independence for all Learners. Jossey-Bass.

Available at: www.pz.harvard.edu/sites/default/files/Chapter%201%20MTV%20Ritchhart%20Sample.pdf

Ideally everyone should read the reference before Day 4. However, if you have been unable to read it, the following are some key points paraphrased from the text.

LOOKING AT TEACHING THROUGH A LENS OF THINKING

The word "**think**" is the twelfth most used verb in the English language and is a word that is often used by teachers. When teachers use the word "think", what do they intend? Ritchhart et al. state that it is common to find teachers unclear on what they expect their students to do when they ask them to think. On the other hand, when students hear it, how do they interpret it? Does it lead to actions on their part? This chapter discusses the idea and practice of **making thinking visible** and on **understanding the role of "understanding" in learning**.

LOOKING BEYOND BLOOM:

Teachers are mostly familiar with the three domains of Bloom's taxonomy: affective, psychomotor and cognitive. They are also aware of the cognitive domain objectives that move from lower-order to higher-order thinking namely *knowledge, comprehension, application, analysis, synthesis, and evaluation*. However, Ritchhart et al. state that Bloom's objectives were not determined based on research and so they must only be used as a starting point to think about thinking. In the 1990s, Bloom's former students, Anderson and Krathwohl identified *remembering, understanding, applying, analysing, evaluating and creating* as a revised taxonomy following levels of lower-order to higher-order skills respectively. Ritchhart et al. critique both the taxonomies. They state that the idea of levels is a problematic way to understand thinking. They also view the categorisation of "understanding" as a lower-order skill in the revised taxonomy that was put forth by Anderson and Krathwohl lacking because it fails to recognise that **understanding is the outcome and the chief goal of thinking as opposed to a type of thinking**. The authors of this reading believe that thinking cannot be divorced from context and that understanding is a deep and complex skill that is a result of applying, analysing, evaluating and creating.

BEYOND MEMORISATION, WORK, AND ACTIVITY

There are current challenges in the school systems that obstruct teaching for understanding. It is common to find teachers imparting what they consider to be important skills and knowledge and asking the students to practise it. Another common practice is experiential learning. Neither "tell and practise" nor "experiential or enquiry-based learning" can lead to understanding unless they are designed with the goal of teaching for understanding. In a school system that is based on an industrial model, imparting knowledge and skills is preferred as opposed to developing understanding. How do we then engage in teaching for understanding?

A MAP OF THINKING INVOLVED IN UNDERSTANDING:

The following are identified in the reading as the thinking moves that are integral to understanding:

1. Observing closely and describing what's there.
2. Building explanations and interpretations.
3. Reasoning with evidence.
4. Making connections.
5. Considering different viewpoints and perspectives.
6. Capturing the heart and forming conclusions.
7. Wondering and asking questions.
8. Uncovering completely and going below the surface of things.

These thinking moves can be applied in maths, science, social science, etc. They have interdisciplinary applications. If students haven't been actively engaged in building explanations, making connections, or having the opportunity to look at things from more than one perspective, then there would likely be significant holes or gaps in their developing understanding. However, understanding is not the sole goal of thinking. Some other types of thinking that are useful in areas of problem solving, decision making and forming judgements include: 1) Identifying patterns and making generalisations, 2) Generating possibilities and alternatives, 3) Evaluating evidence, arguments and actions, 4) Formulating plans and monitoring actions, 5) Identifying claims, assumptions and bias, and 6) Clarifying priorities, conditions and what is known. Being clear about the thinking students need to do to develop understanding or to solve problems effectively allows us to target and promote those kinds of thinking in our questioning and interaction with students.

UNCOVERING STUDENTS' THINKING ABOUT THINKING:

An awareness of one's own learning processes and one's control over them is referred to as "meta-learning". A research study conducted by Ritchhart et al. revealed that students don't have much knowledge of the strategies they might employ to facilitate and direct their thinking. Without this knowledge, they are more likely to be less effective, less independent, less engaged and less meta cognitive learners. Hence, if teachers clarify the goal of thinking and what they mean when they ask students to think, thinking can be made visible to facilitate greater understanding among students. In conclusion, helping students to develop greater awareness of thinking processes will help them to become more independent learners capable of directing and managing their own cognitive actions.

APPENDIX F. EVIDENCE DOCUMENT FOR PROGRAMME ALIGNMENT, COURSE REDESIGN AND TRANSFORMATIVE LEARNING

Introduction

This document is introduced to you on the first day of the Programme Alignment – Profiling the Ideal Graduate workshop. The purpose of this document is for you to capture (in soft copy) the key evidence relevant to the redesign of your course. You will draw upon this evidence to support you, as a facilitator of learning, in the completion of your standard university course outline template, which you will start on Day 4 of the Course Redesign for Significant Learning and Transformation workshop. Make sure that you have this document with you at all times during the three workshops, as you will need to draw on your inputs in this document to support your learning in the sessions.

You will need to enter key information related to your institution (section 1) as well as the key outputs you generate through participating in the Programme Alignment, Transformative Learning and Course Redesign workshops (sections 1–8).

Treat this as a dynamic document, completing the sections as you navigate your learning journey through the three aforementioned workshops and make time to revisit your inputs, reflect upon them and revise where necessary. As a final note, this evidence document will prove to be a valuable contribution to your teaching portfolios (if you maintain one).

If you have any questions about this document, don't hesitate to ask your workshop facilitators for more guidance.

1. INSTITUTIONAL INFORMATION

(most of this information exists already within your institution and/or you will need to draw on what is generated in the Programme Alignment workshop).

Complete the table below.

UNIVERSITY NAME:		
FACULTY/SCHOOL NAME:		
DEPARTMENT NAME:		
UNIVERSITY VISION:		
UNIVERSITY MISSION:		
UNIVERSITY MISSION OUTCOMES:	**UMO1:**	
	UMO2:	
	UMO3:	
	UMO4:	
	UMO5:	
	UMO6:	
UNIVERSITY CORE VALUES:		
THE UNIVERSITY PROMISE TO THE STUDENTS:		
FACULTY/SCHOOL VISION:		
FACULTY/SCHOOL MISSION:		
FACULTY/SCHOOL MISSION OUTCOMES:	**FMO1:**	
	FMO2:	
	FMO3:	
	FMO4:	
	FMO5:	
	FMO6:	
FACULTY/SCHOOL CORE VALUES:		
THE FACULTY PROMISE TO THE STUDENTS ON THE PROGRAMMES:		
THE IDEAL UNIVERSITY GRADUATE PROFILE:		

2. PROGRAMME LEARNING OUTCOMES

(you will need to draw on what is generated in the Programme Alignment workshop)

These are clear and short statements of the knowledge, competencies or skills you expect students to have acquired by the end of the programme.

List your programme learning outcomes (**PLOs**) in the table below.

PLO1:	
PLO2:	
PLO3:	
PLO4:	
PLO5:	
PLO6:	
PLO7:	
ETC.	

2.1 FACULTY/PROGRAMME OUTCOMES MATRIX

Next, list the programme learning outcomes (**PLOs**) down the left-hand column and then indicate which PLO contributes to which faculty/school mission outcome by marking with an **X**.

PROGRAMME LEARNING OUTCOMES (PLOS)		**FACULTY/SCHOOL MISSION OUTCOMES**					
		FMO1	**FMO2**	**FMO3**	**FMO4**	**FMO5**	**FMO6**
PLO1:							
PLO2:							
PLO3:							
PLO4:							
PLO5:							
PLO6:							
PLO7:							
ETC.							

2.2 PROGRAMME (CURRICULUM) MATRIX

Hard skills are technical or subject-specific skills that require a dedicated course or teaching unit. They can be understood as the ability to research or carry out specific tasks that require specialist knowledge and/or experience, for example engineering design, credit risk assessment or software programming.

Soft skills are generic, transferable skills that do not require a dedicated course or teaching unit, but can be acquired by the student through well-designed activities in the curriculum. They are also referred to as “power skills”. They can be skills required in the workplace, irrespective of a specific role, for example, communication, teamwork, critical thinking and problem-solving skills and so on, namely the skills, capabilities and dispositions found in the TSL soft skills matrix.

Differentiate between the programme learning outcomes (**PLOs**) that inculcate hard skills and those which inculcate soft skills and list them down the first empty column. Then next list the Y1, Y2, Y3 and Y4 courses that contribute to each specific PLO listed.

PROGRAMME LEARNING OUTCOMES (PLOS)		YEAR 1 COURSES	YEAR 2 COURSES	YEAR 3 COURSES	YEAR 4 COURSES
HARD SKILLS PROGRAMME LEARNING OUTCOMES					
PLO1:					
PLO2:					
PLO3:					
PLO4:					
SOFT SKILLS PROGRAMME LEARNING OUTCOMES					
PLO5:					
PLO6:					
PLO7:					

3. PERSONAL TEACHING AND LEARNING PHILOSOPHY

(you will need to draw on what you developed at the Transformative Learning workshop)

You can revisit the following five questions to help refine your personal philosophy:

1. What is the value you intend to create through your facilitation of this course?
2. What approach will you use to facilitate learning?
3. What kind of learning environment do you intend to create to allow for a great learning experience?
4. What is your attitude towards the content you are facilitating learning about?
5. What will your attitude be towards your students?

Enter the description of your personal teaching and learning philosophy in the table below:

4. GENERAL COURSE INFORMATION

(most of this information exists already within your records; you will just need to draw on Day 3 of the Transformative Learning workshop for the Big Dream for the students taking the course).

Complete the table below.

COURSE CODE:			
COURSE TITLE:			
THE BIG DREAM FOR THE STUDENTS TAKING THE COURSE:	**By the end of this course, the student will be able to know...** [please complete] **in order to be able to do...** [please complete] **so that they become...** [please complete]		
NUMBER OF CREDITS:			
MODE OF DELIVERY: Select one option and mark with an X.	Face to face: ___	Online: ___	Blended: ___
PREREQUISITES: Particular courses to have already completed, specific knowledge or skills a student should have before beginning the course (e.g. use of the computer, ability to read architectural plans, etc.)			

5. COURSE CONTENT

(you will need to draw on what is generated in the Course Redesign workshop)

5.1 CONCEPT MAP

A concept map or graphic representation of the content of the course should be inserted here (for example by taking a photo):

5.2 DESCRIPTION OF COURSE CONTENT

(you will need to draw on what is generated in the Course Redesign workshop)

Brief descriptions, in the form of bullet points, of the key content that will be covered under each concept of the course.

Complete the table below.

CONCEPTS	DESCRIPTION OF THE CONTENT
	• • •
	• • •
	• • •
	• • •
	• • •

5.3 RATIONALE FOR THE SEQUENCE

(you will need to draw on what is generated in the Course Redesign workshop)

The rationale for the sequence of the course, especially if you are not using an assigned text in chapter sequence (e.g. a historical approach with topics arranged chronologically, a progression from simple to more complex procedures or concepts, or a series of theoretical principles followed by applications).

Enter your rationale in the table below.

6. COURSE LEARNING OUTCOMES

(you will need to draw on what is generated in the Course Redesign workshop)

Clear statements of the knowledge, capabilities or skills you expect students to have acquired by the end of the course. Differentiate between the course learning outcomes (CLOs) that inculcate hard skills and those that inculcate soft skills, then list them in the table below.

HARD SKILLS COURSE LEARNING OUTCOMES	
CLO1:	
CLO2:	
CLO3:	
ETC.	
SOFT SKILLS COURSE LEARNING OUTCOMES	
CLO4:	
CLO5:	
CLO6:	
ETC.	

7. ASSESSMENT

(you will need to draw on what is generated in the Course Redesign workshop)

A description of assessment methods or tasks that will be used during the course, aligned to each course learning outcome. The description of each assessment method or task should provide significant detail as to how it will assess the course learning outcome/s, i.e. the specific knowledge, capabilities, skills and habits of mind being developed.

Complete the table below.

COURSE LEARNING OUTCOMES	FORMATIVE ASSESSMENT METHODS/TASKS	SUMMATIVE ASSESSMENT METHODS/TASKS
CLO1:		
CLO2:		
CLO3:		
CLO4:		
CLO5:		
ETC.		

8. TEACHING AND LEARNING STRATEGIES (OR ACTIVITIES)

(you will need to draw on what is generated in the Course Redesign workshop)

A description of the teaching and learning strategies or activities that will be used during the course, aligned to each course learning outcome (e.g. lectures, seminars, laboratory or clinical activities, group projects, etc.)

Complete the table below.

HARD SKILLS COURSE LEARNING OUTCOMES	**TEACHING AND LEARNING STRATEGIES (OR ACTIVITIES)**
CLO1:	
CLO2:	
CLO3:	
ETC.	
SOFT SKILLS COURSE LEARNING OUTCOMES	**TEACHING AND LEARNING STRATEGIES (OR ACTIVITIES)**
CLO4:	
CLO5:	
CLO6:	
ETC.	

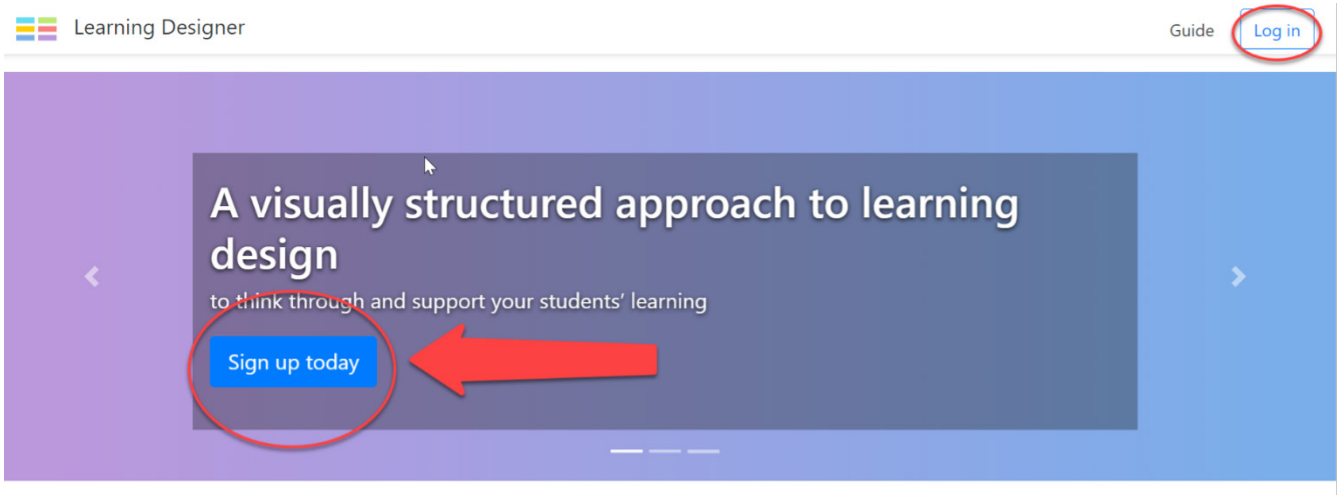
APPENDIX G. USING THE LEARNING DESIGNER

This guide, developed by Roisin Manning, is an introduction to using the Learning Designer software, available for free at: www.ucl.ac.uk/learning-designer/index.php

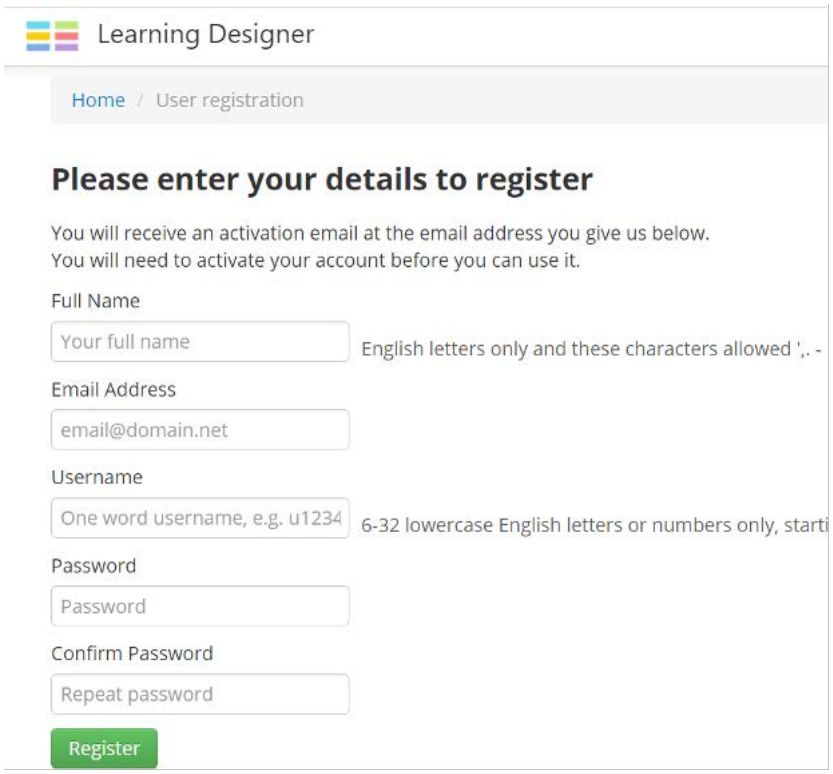
The Learning Designer has been developed to support learning design that follow Diana Laurillard's Conversational Framework. You can find out more about this here.

Getting started

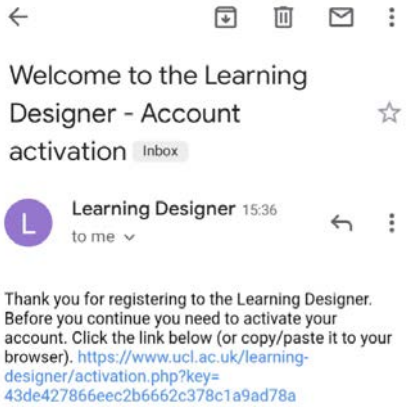
1. Navigate to www.ucl.ac.uk/learning-designer/index.php and click **Sign up today** to start. If you already have an account, click **Log In**.



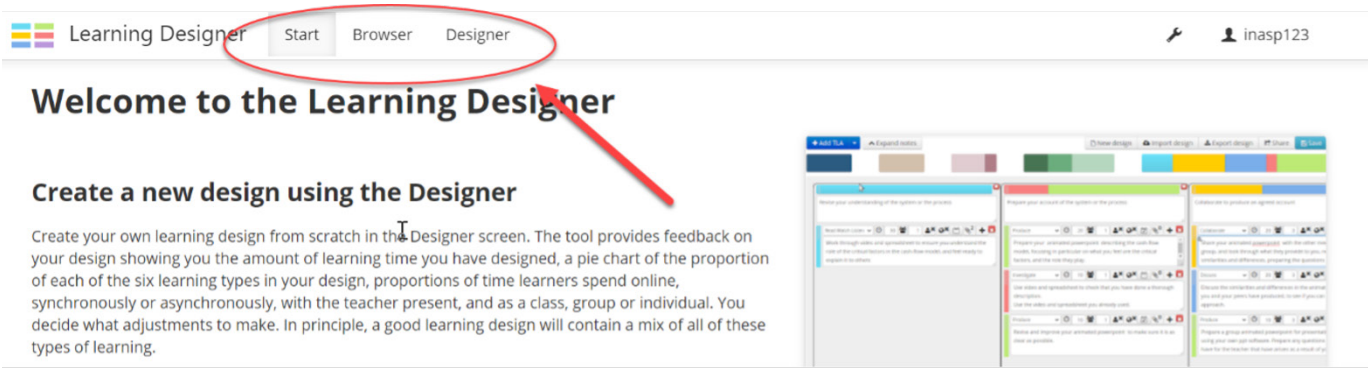
2. Enter your details and create a password to register. Note that the software will only accept passwords with lowercase English letters or numbers only. Passwords must start with a letter, must contain at least one number and must be at least 8 characters long.



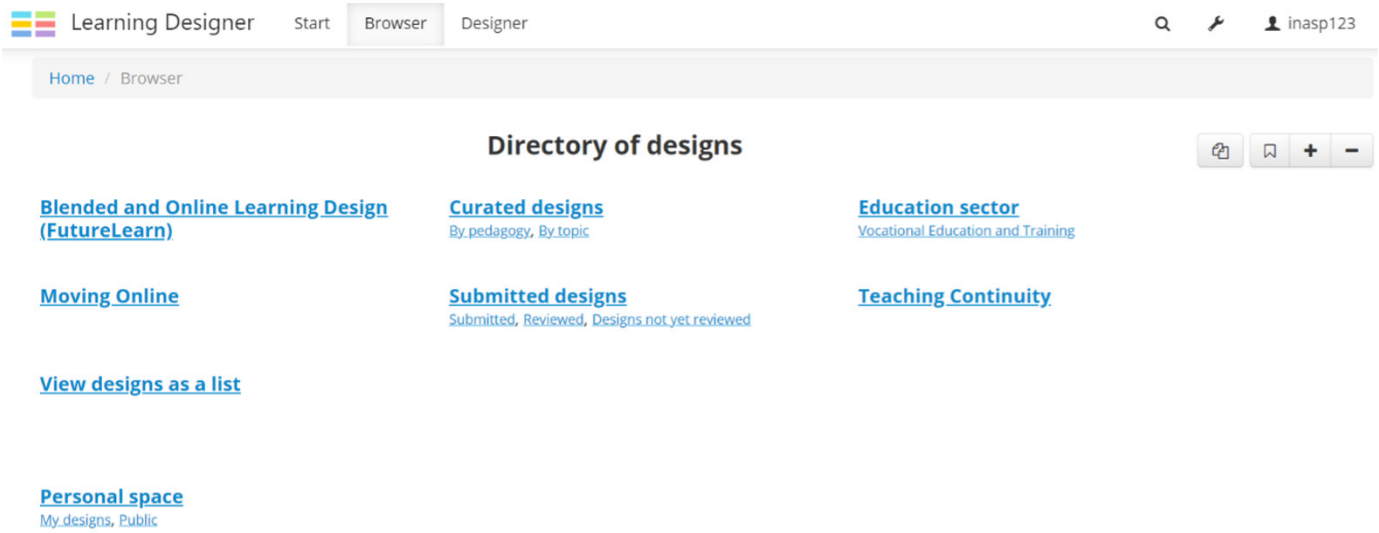
3. You will then receive an email to the email address provided in the form to register your account. Make sure you check your spam or junk folder if you cannot see the email in your main inbox. By clicking the link in the email, you will then be able to log in to your account.



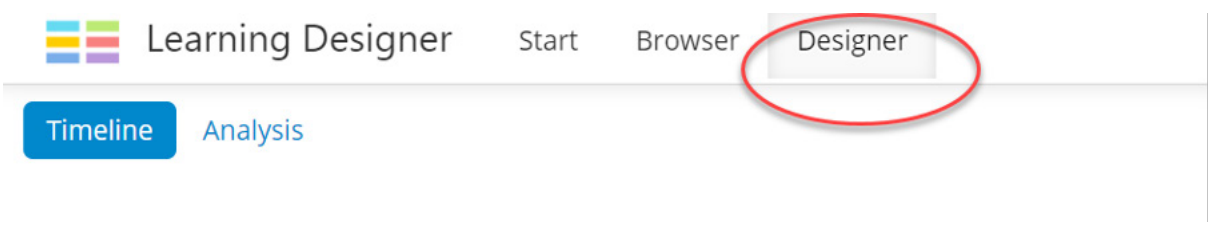
4. After logging in, you will see three tabs – Start, Browser and Designer.



5. In the Browser screen, you can see previous designs by other people. Look at some of these before starting your own.

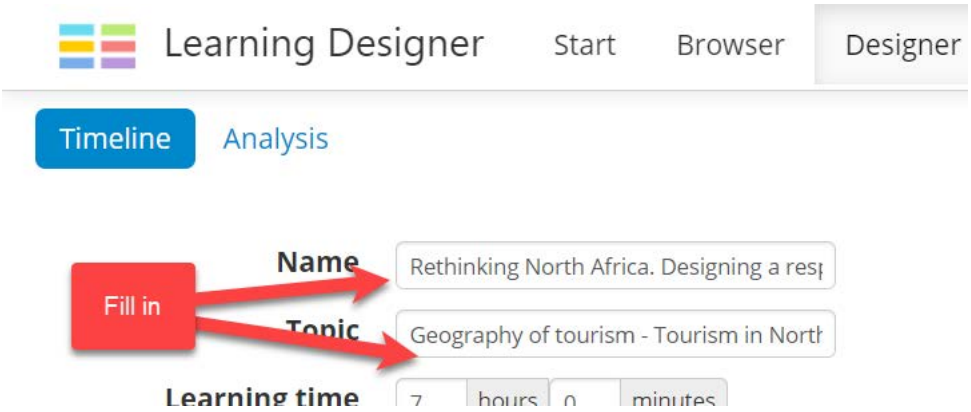


6. Make sure you are in the Designer screen to begin your design.



Adding details to your design

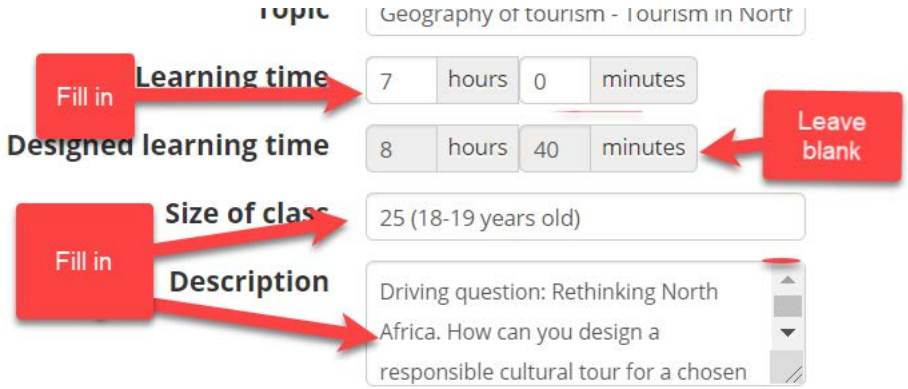
7. Begin by giving your design a name in the **Name** field and a topic in the **Topic** field. You might want to use one of the concepts you have developed for your course to fill in the **Topic** field and the name of your course to fill in the **Name** field. However, you do not need to use this method and can fill in the **Name** and **Topic** fields in any way that is meaningful to you.



8. Now fill in the **Learning time** field. This is the amount of time you have planned for the learners to complete the piece of learning you are designing. At university level, this will align with the time you have been allotted to teach the topic. Leave the **Designed learning time** field blank as the software will fill this in automatically as you complete your design. When you have finished your design, you can check back here to ensure that the learning you have designed does not exceed the actual time you have available for it.

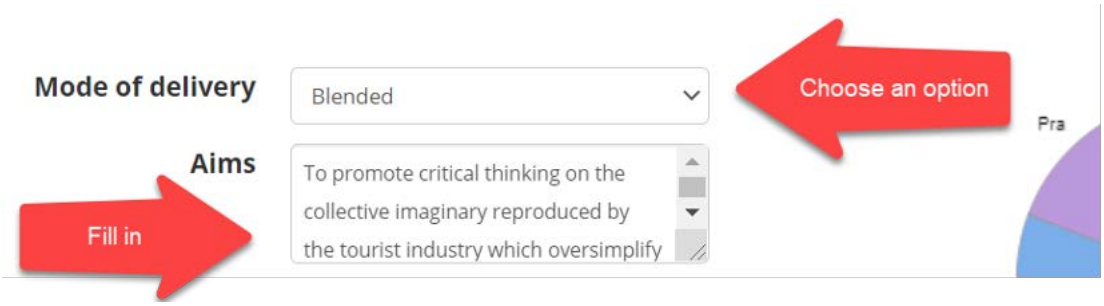
9. Indicate the class or group size in the **Size of class** field – this should be the total number of learners in the class

10. Include a description for this design in the **Description** field. This should be a brief summary of what learners will do during this piece of learning.

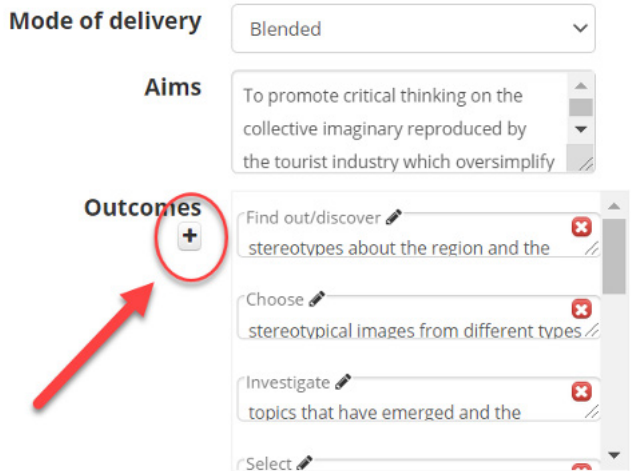


11. Beside the **Mode of delivery** field, we can choose an option from the dropdown menu. Choose 'wholly online' for learning that is completely digital, 'blended' for learning that mixes digital learning with face-to-face learning, 'classroom-based' for face-to-face learning and 'location-based' for learning that takes place on a location, for example, a work experience placement or field trip.

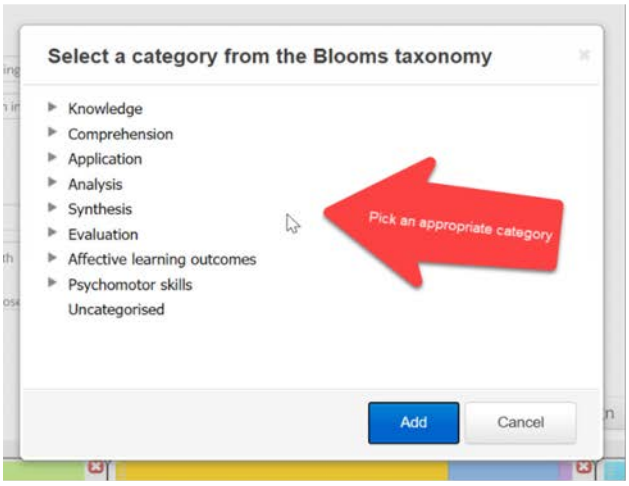
12. Now write the aims of the design in the **Aims** field. What are you as the facilitator of learning hoping to convey to the learners in this piece of learning?

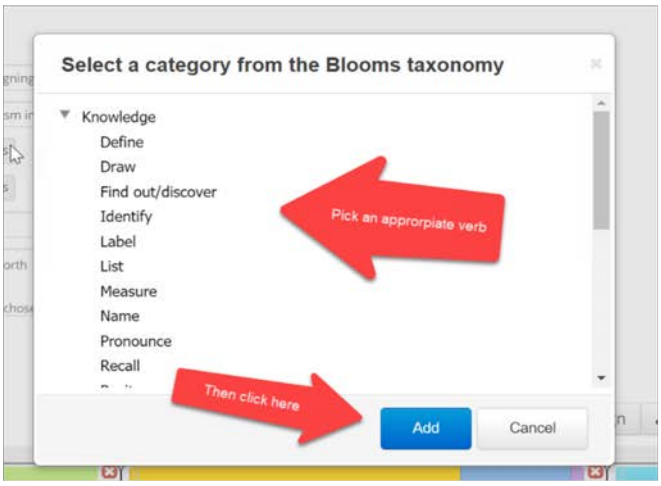


13. Now write the learning outcomes for the design in the **Outcomes** field. Click the + symbol.

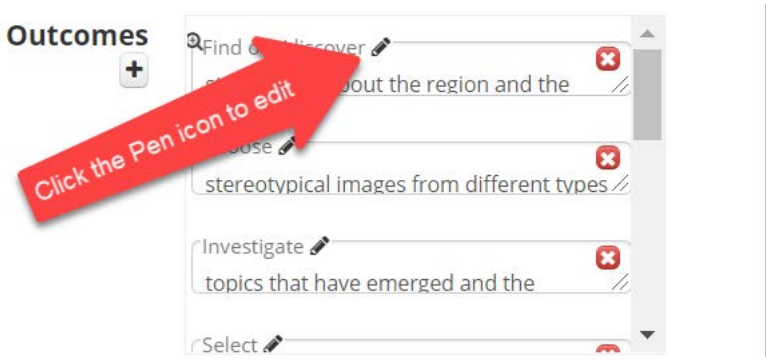


This gives you a menu of verbs from Bloom's Taxonomy, which you can use to help pick an appropriate verb for the first outcome. If you are using another taxonomy, such as the Taxonomy of Significant Learning (soft) skills matrix, you can select the **Uncategorised** label.

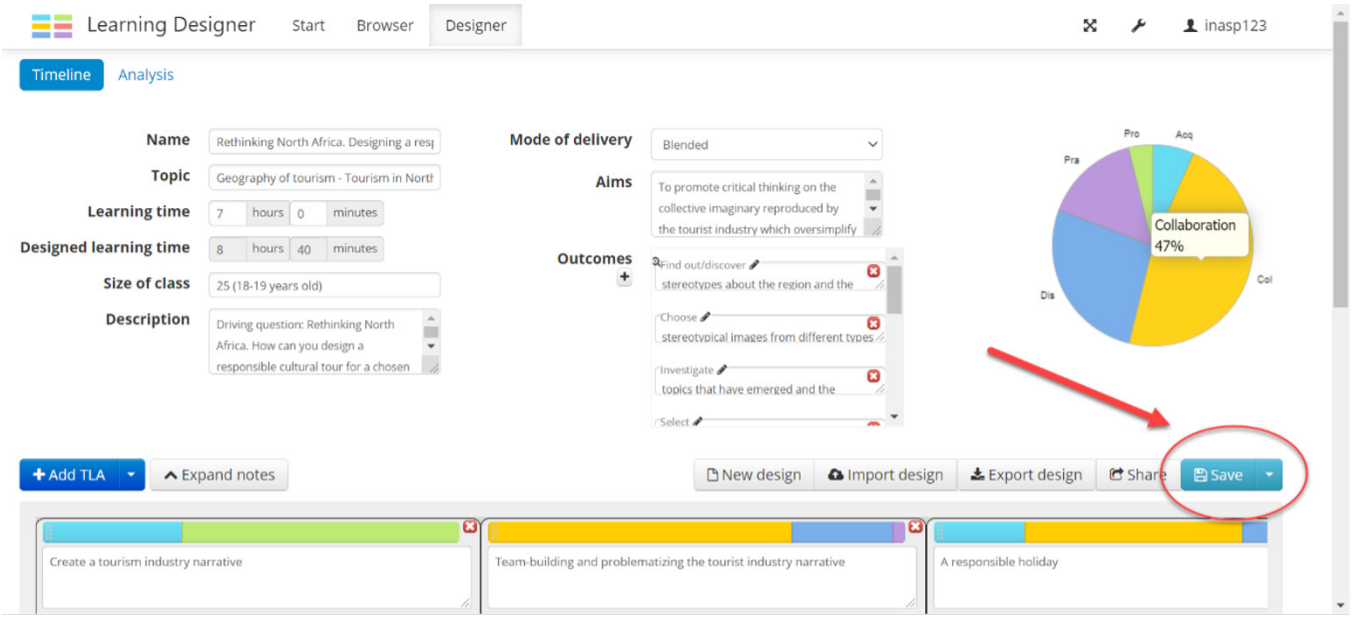




Now fill in the rest of the outcomes. Learning outcomes should feature an appropriate verb, the content to be addressed and the context in which it is being addressed.

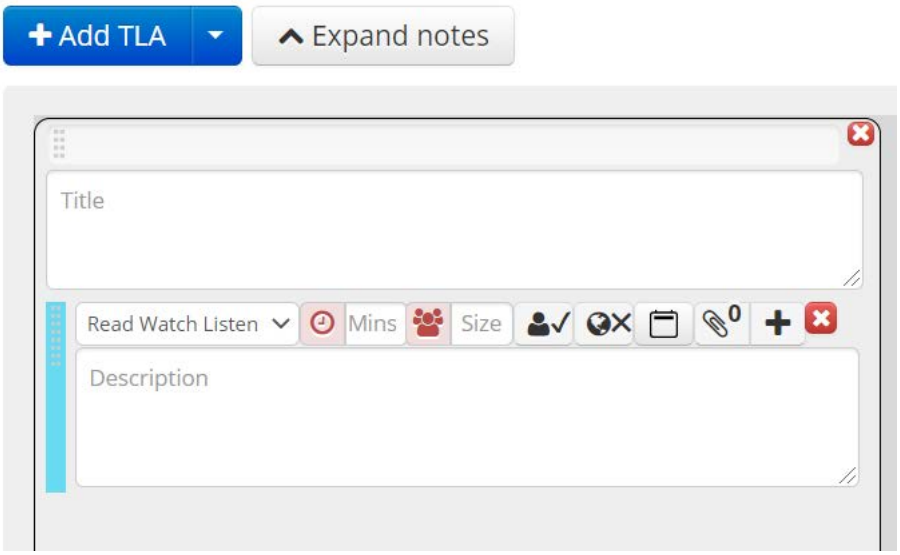


14. Remember to click the save button regularly to avoid losing any of your work.

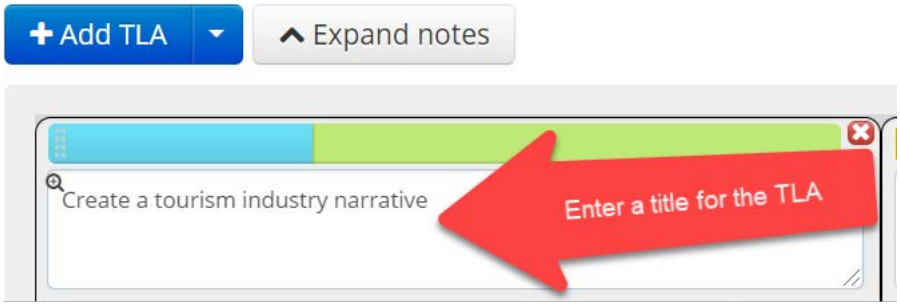


Adding a teaching and learning activity (TLA)

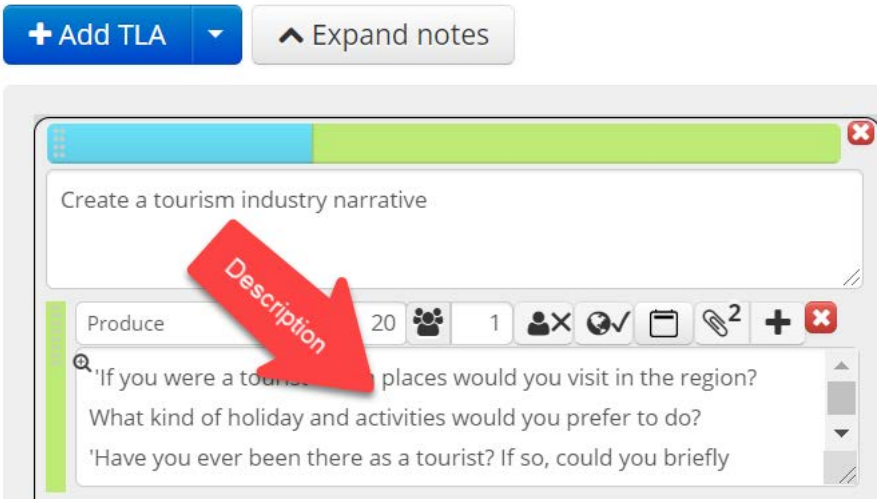
15. TLAs are for providing more detail on your design and the activities involved. Your first TLA already appears blank in the TLA section of your design.



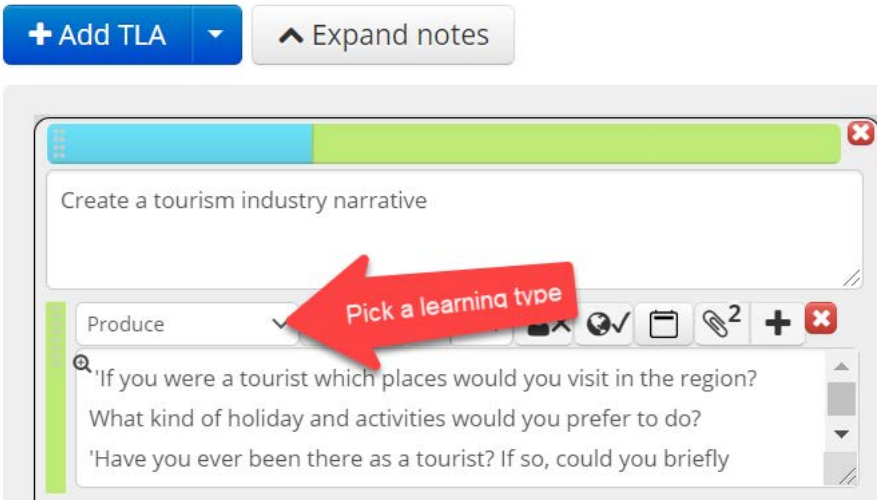
16. Give this an appropriate **Title** describing what learners will do in this TLA.



17. Below the Title box, you will see the box to add your first activity to the TLA. Start by entering a description of this activity.



18. Now decide on what type of learning this is. The dropdown menu provides the six types of learning from Diana Laurillard's Conversational Framework to choose from.



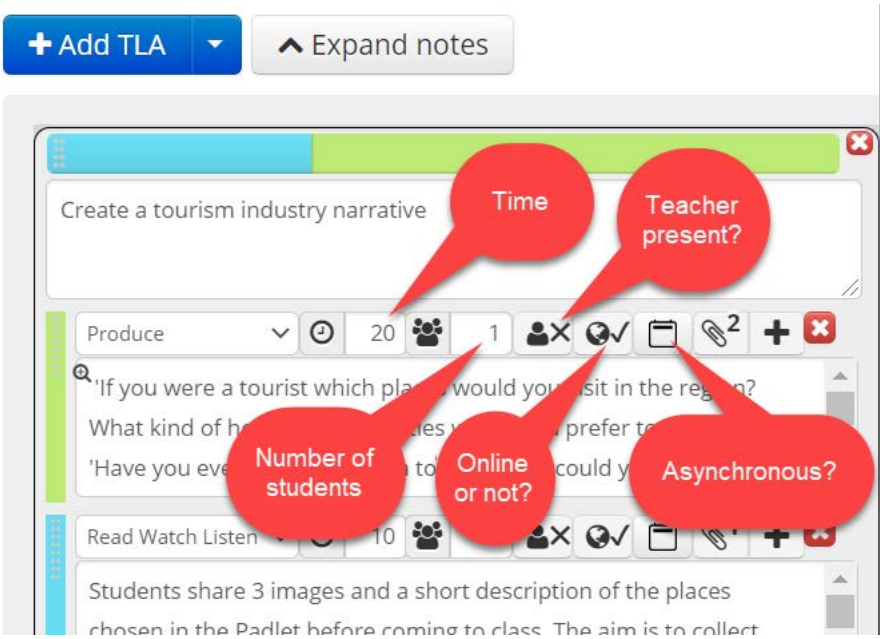
19. Enter a time needed to complete the activity in the **Mins** box.

20. Indicate how many students are involved in the activity in the **Size** box. If the activity is to be completed individually, you might put 1 here. For a small group activity, you might put 5 here (to represent groups of five people) or for an activity that involves the whole class, you would put the total number of learners in the class.

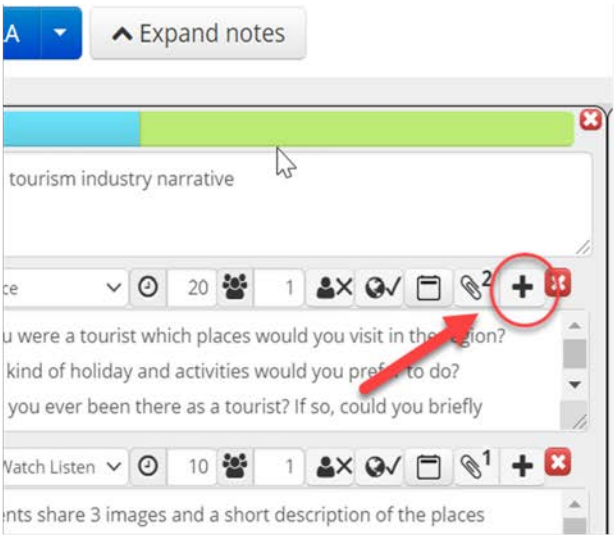
21. Indicate whether this is an activity the facilitator of learning needs to be present for by clicking the **Teacher present** button. If this button is ticked, the facilitator of learning does need to be present. If this is an activity that does not involve the facilitator of learning, for example if learners complete the activity online before coming to class, click the button to cross it out.

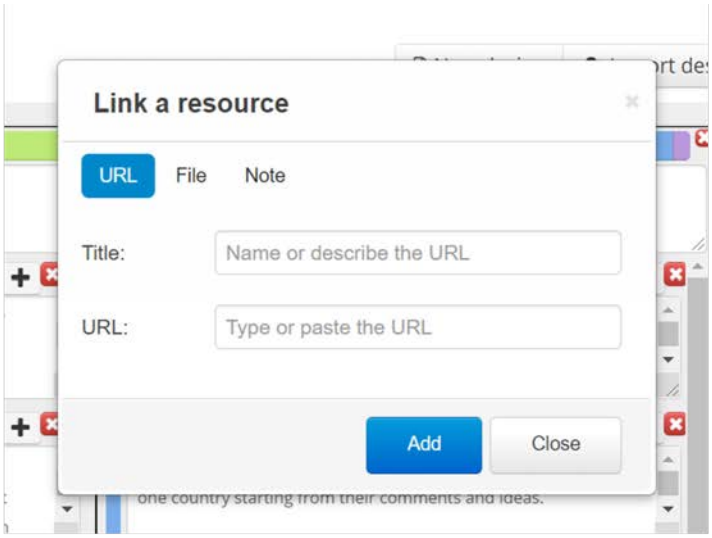
22. Indicate if this activity will be conducted online or not by clicking the **Online** button. For a face-to-face activity, you can leave this unticked.

23. If the activity will be asynchronous (not carried out by learners simultaneously, for example, an online discussion forum), you can indicate this by ticking the **Asynchronous** button. If the activity is to be carried out synchronously (for example, an in-class discussion or exercise), leave this unticked.

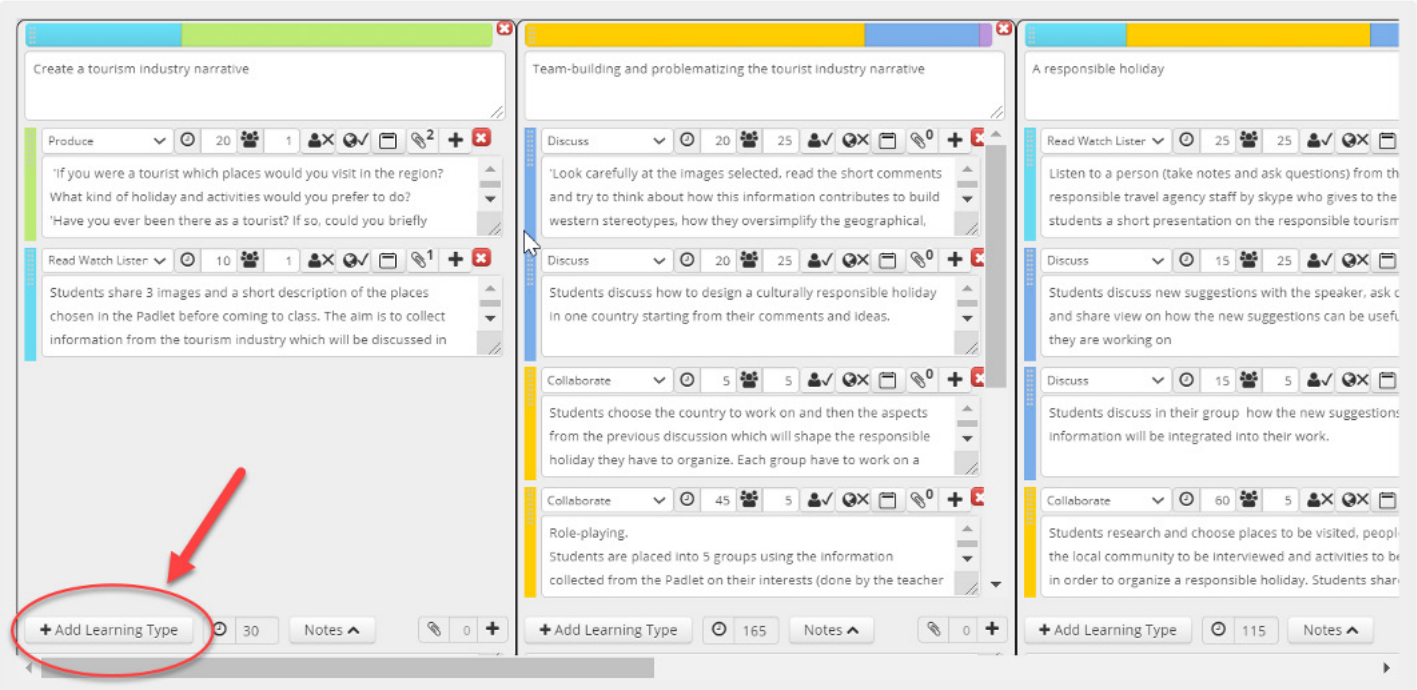


24. Link to the relevant resources for the activity by clicking the **Link resource** button. These can be URLs, files or you can add a note.

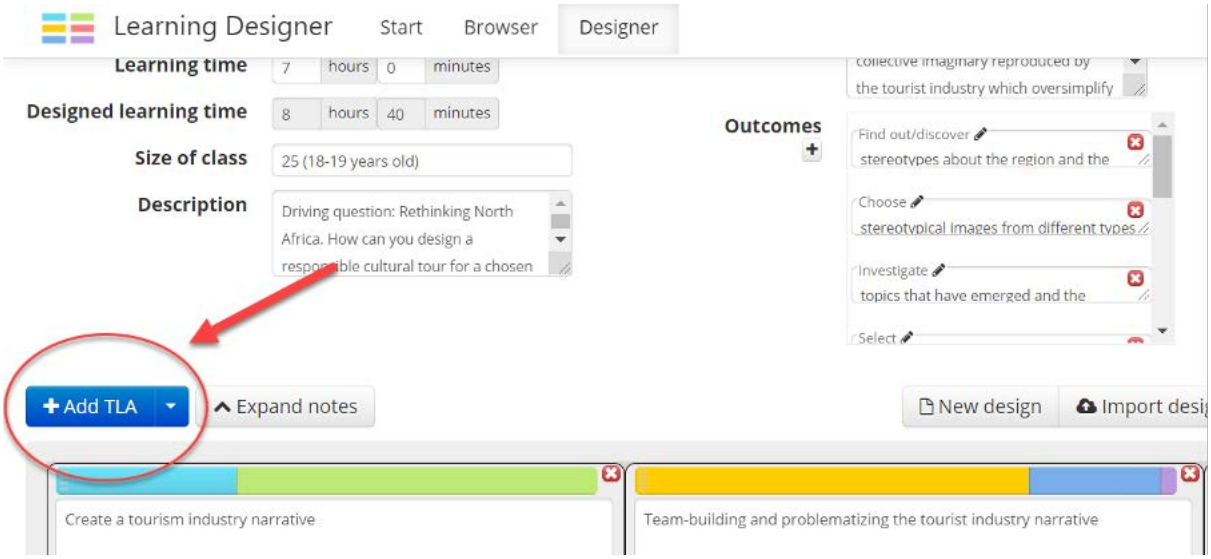




25. Add more activities to this TLA by clicking the **Add Learning Type** button.

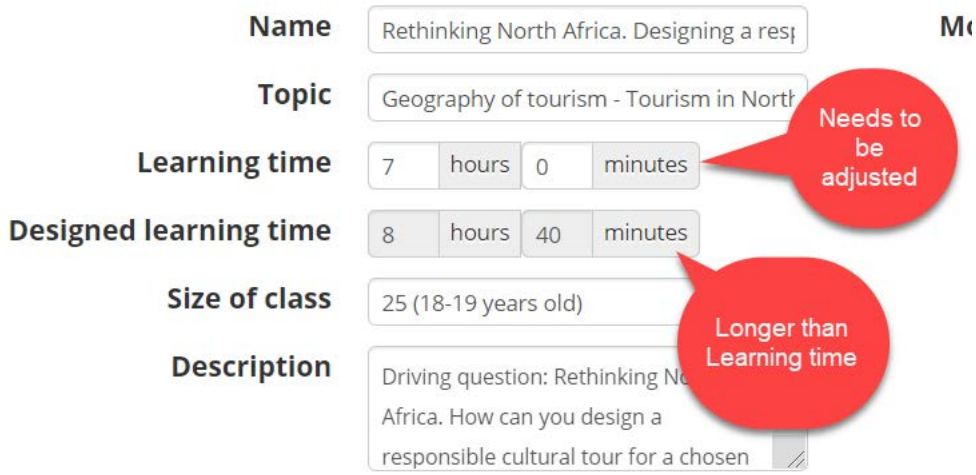


26. Add additional TLAs to the design by clicking **Add TLA**.

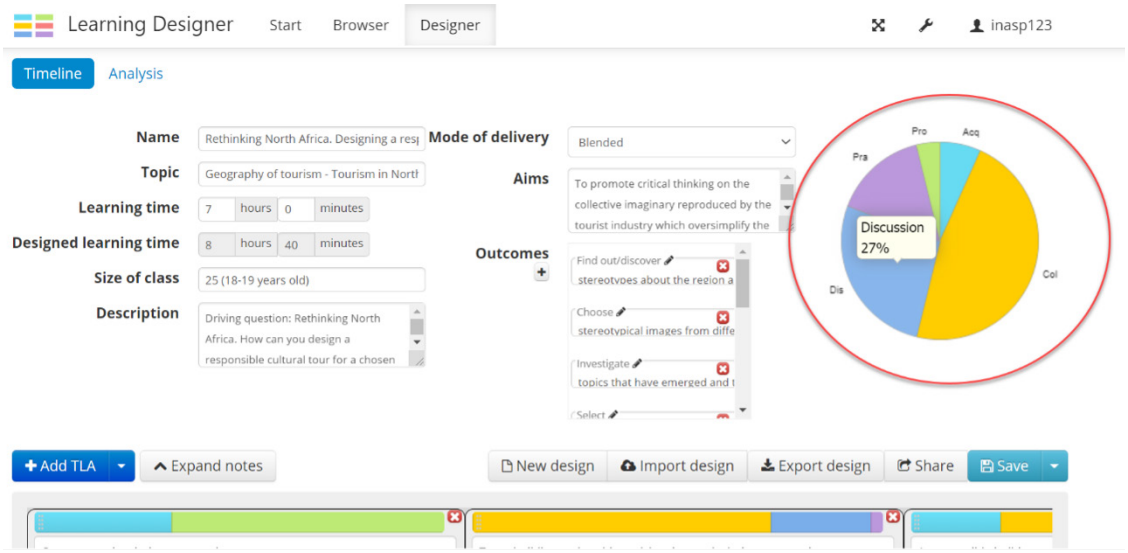


Finalising your design

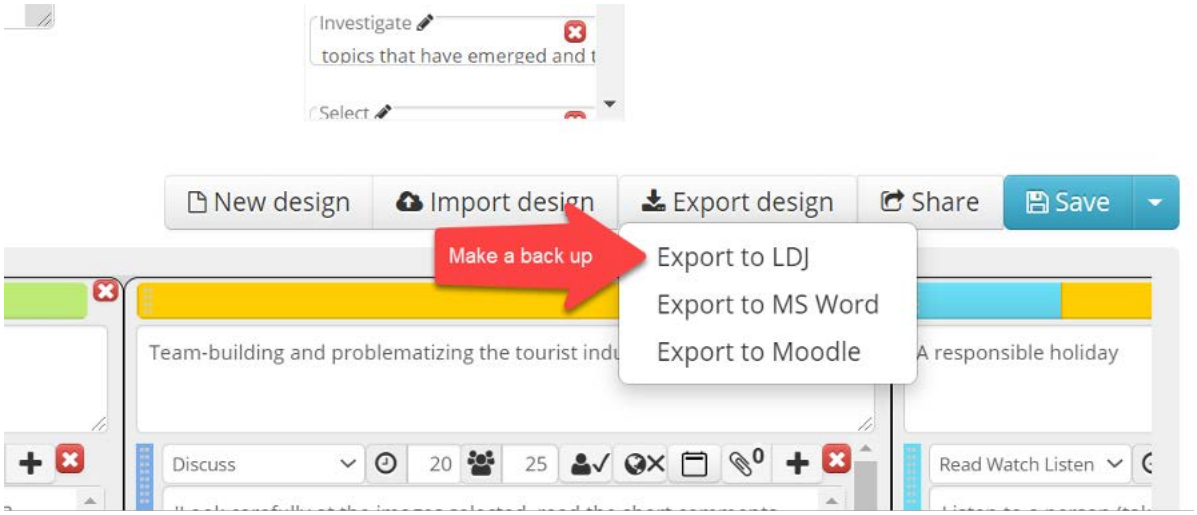
27. Check the learning time needed. The tool will automatically fill in the designed learning time field. This may be shorter or longer than the learning time estimated at the start in the learning time field, so this may need to be adjusted.



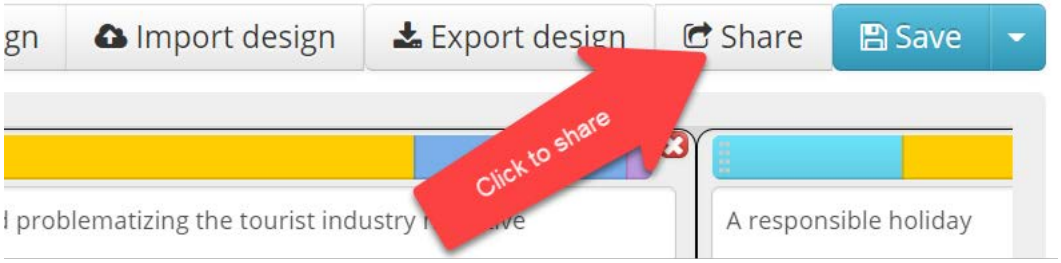
28. Check the pie chart which displays the different types of learning included in the design. This can be useful for alerting you if there is not enough variety in types of learning in the design.



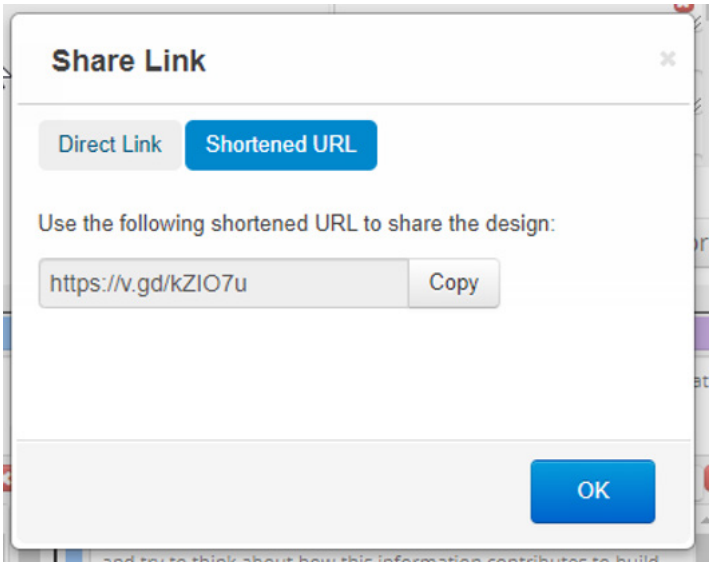
29. Export your design. To securely back up your design on your computer, click the **Export design** button and then LDJ format. This will create a backup file on your computer which you can import to learning designer if you ever lose the online version. You can also export your design as a Word document or to Moodle.



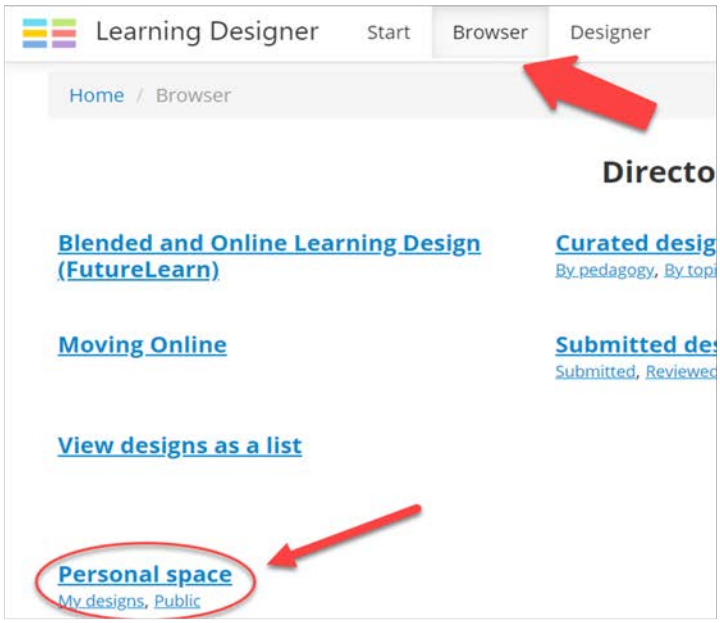
30. Share your design. Click **Share** to show the design to specific people.

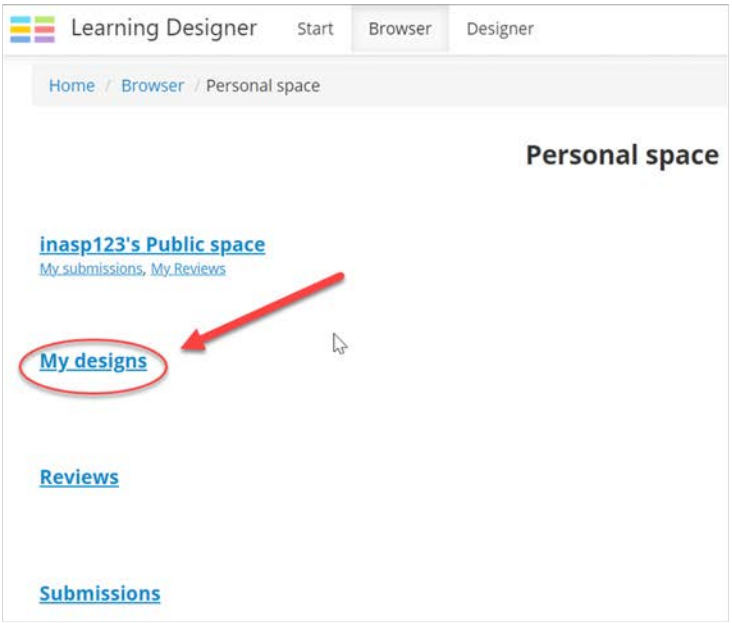


Select the shortened URL option and copy and share the link provided with anyone you want to view your design.



31. Finding your design again. Your design will now be visible in your Personal Space, which you can find in the Browser screen under Browser/Personal Space/My designs





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