**Planning your teaching: curriculum, course design and delivery**

There are four simple principles for planning your teaching that apply whether you are lecturing, tutoring, demonstrating or offering clinical training, and apply whether you are designing a whole course, a part of a course or even delivering a course designed by someone else:

1. Learning objectives: What do I want my students to learn?
2. Teaching and learning methods: What is the best way for them to learn this?
3. Assessment: How will I know if they have learned it?
4. How can I align the learning objectives, teaching and learning methods and assessment?

Applying these four principles enables you to design a course or subject, and to plan a lecture, tutorial, lab, clinical session or other teaching.

1. **Introductions**
2. **How the process of course design and planning is useful for all teachers in all contexts**

Planning your teaching and course design is important for designing a course or subject from scratch, and also for designing how you will teach when you have been given a course or subject to teach. It is just as pertinent for thinking through course delivery and every kind of teaching, as it is for thinking through course design. Even when you do not have a ‘course’ as such – for example clinical teaching – the same thinking process is involved, but it happens on the spot rather than before

1. **The process is fundamental to thinking like a teacher**

To think like a teacher you focus on students rather than on yourself or your content. Not about what you know or what you will cover, but what your students already know and what you want them to learn.

1. What do I want my students to learn?
2. How can they learn it?
3. How will I know if they have learned it?
4. How can I align the learning objectives, teaching and learning methods and assessment?

These are the things that teachers focus on, the questions they ask themselves when planning their teaching.

1. **The process is called instructional alignment (sometimes constructive alignment)**

See: Biggs, J and Tang, C. (2007) 3rd edition, *Teaching for Quality Learning at University* (or see later editions)

* Align objectives, method of teaching and assessment
* Constructive in the sense of about what students do to learn to construct an understanding for themselves. Based on what the students should do – the student outcomes – and what students should do to reach these outcomes. Different from content based design – what content the lecturer will cover.

1. **Demonstrate how I have used instructional alignment in this course**

The Pdf of instructional alignment in course design describes how I designed instructional alignment for this workshop. Note that I can only assess the understandings of participants who are viewing this on the video if they send me their filled in forms for some feedback.

*How would you explain instructional alignment in your own words? share*

*What questions does this raise for you? Discuss*

1. **Design learning objectives**

Work out the learning objectives for students in one of your courses or teaching situations. The handout on verbs for course design will give you some suggestions.

*What do you want your students to learn? Share*

1. Be precise about the kind of learning objective: Sometimes we state the wrong kind of objective. For example, we might say we want students to ‘know’ x, when we actually want them to understand, apply, recognise, compare or explain. Distinguish knowing, understanding, applying and valuing, being able to and doing. Consider what you actually want students to learn rather than rely on a vague verb like ‘know’ or ‘understand’. It is probably more than merely being able to repeat back what you have told them, and might instead involve explaining it in their own words or using the knowledge to solve something, make something or do something. Instead of ‘knowing’ the learning objective might actually be that students recognise the significance of the knowledge and act appropriately (eg they don’t just know what blood pressure is, and how to measure it, but they recognise when it is too high or too low and what to do about it)
2. Be concrete: Pick something that you want students to learn. What would students do, say or ask if they had learned this? What exactly are you looking for if students have met the learning objective? It is important to be concrete so you can get alignment between the learning objective and the teaching methods and assessment. You cannot determine the best teaching method, and you cannot assess learning unless you know exactly what you want students to learn. For example, saying that you want students to be able to think outside the box is too abstract to teach or assess. If you instead say you want students to be able to devise multiple solutions to problems, then you have a better idea of how you might teach it (assign students problems and have them practice solving them in multiple ways) and how you might assess it (how many solutions can your students devise?).
3. Make the learning objectives explicit for students: Also a fair assessment will make the learning objectives explicit for students, so they know what you are looking for. And, one quick teaching method is simply to be explicit about the learning objectives – if we tell our students what we want them to learn, they are more likely to learn this.
4. Rank the learning objectives and focus on the most important: Only teach the most important learning objectives – these are often the most sophisticated learning objectives. For example, we want students to be able to apply theories and formulae, not merely memorise them. We want students to understand the central principles, concepts and big questions, not simply collect a number of isolated facts related to these.
5. **Design assessment methods**

Next consider how you will know that students have met these objectives – both summative assessment with grades and formative assessment that happens as part of the learning process.

*How will you know students have met these learning objectives? share*

1. Frequent assessment: It is useful to have frequent informal assessment to get feedback on the performance of your students. You can use the assessment to inform your teaching (do I need to go over that topic again?) and the students can use the assessment to informs and improves their learning (do I need to restudy that topic?). Classroom assessment techniques (CATs) are useful for this purpose. Short assessment tasks used while you teach, for example, ask a multi-choice question in class and you can tell whether the class understands the topic by how many get the answer right.
2. Authentic assessment: The task should assess the most important learning objectives, and not something you did not teach, or something unimportant. For example, if the learning objective is that students must know how to engage in clinical reasoning, the assessment must involve them in clinical reasoning, and cannot be writing an essay about clinical reasoning. Isolate the important objectives and set an assessment task that focuses on this, or possibly bring together several objectives in one task.
3. **Design teaching methods**

Lastly, consider how you would enable students to develop these objectives. What will the students read and do so that they learn what you want them to learn? This could involve direct teaching so students hear about a new concept, but it could also include the tasks you set students, the environment that you immerse them in and the opportunities you give them.

*How can students learn what you want them to learn? share*

*What will you have students do so that they learn what you want them to learn? share*

* 1. Student centred: The methods you specify are what students will do in order to meet the learning objectives. It is not enough to say you will tell students about x topic – this will not lead to any learning. Better to have something like, students will hear about x topic in a lecture and explain it in their own words.
  2. Consider the sequence of the learning activities: Start with student initial understandings and misunderstandings and slowly take them to the intended outcome. In order for students to reach the learning objective z, they may have to move through x and y first. What misunderstandings do your students commonly have? How can you help them dispel these so they can develop the correct understanding by the end of your teaching? In order to learn a complex skill, students may have to first practice a number of simpler skills.
  3. Scaffold the learning: Provide students with the support they need (feedback, information, tools) that will enable them to do the task for themselves.
  4. Use the tools of teaching: Consider how you will use the teaching method to enable students to meet the learning objectives. For example, it is not enough to say I will use powerpoint. How exactly will you use powerpoint to help your students develop the needed skills and understanding? Will you put questions on the powerpoint and have students discuss in pairs? Will you show pictures and diagrams that get more and more complex on each slide to build student understanding?

1. **Using instructional alignment for problem solving about teaching**

The instructional alignment framework can be used to isolate specific teaching problems you need to resolve, and questions you want to address for further development and improvement of your teaching (or educational research). The question or problem might be one of the following:

1. What do I want students to learn? The learning objectives may not be clear enough, or you are redeveloping a course or programme and so are revising learning objectives.

* Do I want students to learn knowledge, skills, attitudes values or behaviours?
* How do I make the learning objectives clear for my students (and myself)?

1. How do I assess the development of student thinking? You may be clear about the learning objectives, but not be sure about how you might assess these particular learning objectives.

* What sort of task requires student to demonstrate their learning?
* How can the task be structured so that the learning is visible?
* What sort of evidence could I collect about the quality of this learning?
* What sort of criteria could I use to judge?
* What feedback can I give to students about their learning performance, and how can I give it?

1. What pedagogical challenges will I have to solve to teach this? You may be clear about what you want students to learn, and how you will tell whether they have learned this, but you may not know the best way to enable students to learn this.

* How can students best learn the learning objectives?
* What have the students already learned, and how can I tell?
* What is the learning path from pre-existing learning to the learning objectives I have set?
* How can I set up an environment that will enable students to learn the objectives?
* What teaching and learning methods would be best?