Constructive alignment is a process that helps an instructor identify teaching and learning activities as well as assessment tasks that are directly linked to the intended learning outcomes. Through this process, the course instructor actively considers how course level outcomes, learning tasks and teaching strategies, and course assessments align with each other, as shown in the integrated approach to course design depicted in Figure 1.



Figure 1: Integrated Approach to Course Design (Adapted from Fink, 2003)

The essence of constructive alignment is a holistic approach to course design that considers each component or building block of a course/lesson not in isolation from each other, but as organic and interconnected components of a single unified experience. All elements are purposely developed to fit in with each other, not unlike pieces of a puzzle, to connect with other elements and align with their requirements, and to facilitate the learner's progress to successfully achieving the intended learning outcomes as measured by objective criteria.

Establishing good alignment between your teaching and learning activities and the course learning outcomes will ensure that students are provided the information and practice they need to gain the knowledge and skills emphasized in the course. Similarly, an obvious link between assessment tasks and the course learning outcomes will help the instructor in determining whether students have reached the learning goals set out for them. Finally, teaching and learning activities that emulate how students will be asked to demonstrate their knowledge and skills in assessment tasks further reinforce the learning cycle.

One of the many reasons constructive alignment must receive special consideration in an online context is the lesser degree of immediate feedback inherent to the medium. In a face-to-face classroom setting where synchronous interaction between instructor and students is oftentimes the norm, the re-alignment of outcomes, activities, and forms of assessment is a continuous if not instantaneous process as new needs arise and potential gaps or instances of misalignment are revealed. The mostly asynchronous nature of online learning tends to 'freeze' these elements at the time of their publishing (i.e., once they are made available to students), which in turn places greater importance on ensuring that constructive alignment is fully and consistently established in the planning and development phase.

A useful first step in the process of establishing constructive alignment is to examine all components (outcomes, activities, and forms of assessment) of a course by 'testing' them along the following spectrum of questions:

- What is to be done? What am I trying to achieve?
- What do I want my students to achieve through completing this component?
- How can I realize this goal in an online environment? How do I need to change this component from a face-to-face/in-class to an online context to ensure the achievement of this goal?
- If I change this component, how will the changes impact on all other components?
- How do I need to change any other component to establish or maintain an overall alignment between all of them?
- What else (e.g., follow-up activity) do I need to modify to align the rest of my course with the change I am introducing now?
- What is going to tell me if my realignment of the components was successful? How am I going to measure this?
- What do I need to do to communicate this change to my students?
- What is my backup plan in case the alignment proves unsuccessful?

If your starting point is a fully developed in-class course with a rich history and a wealth of already existing resources, consider using our course design template to help you design online courses with constructive alignment embedded from the ground up.

Learning Outcomes

Learning outcome is a term to describe what learners will be able to do/demonstrate, know/comprehend, or feel/value by the end of a lesson or a course. 'Outcome' defines the learning intention by clarifying what the learner should be able to know, think, value, or do by the end of the lesson.

Aligning learning outcomes with the learning activities and course assessments will also help students to orient their learning and monitor their own progress (Biggs & Tang, 2011). Moreover, it helps the instructor to limit course content to the most important areas of learning and to select the content and activities that will best allow the learner to achieve the outcomes in the time allowed. For these reasons, it is helpful to use action verbs to help communicate to your learners what they should know/be able to do by course/lesson end.

Teaching and Learning Activities

Teaching and learning activities include everything an instructor does to facilitate student learning, from content transmission to active learning strategies. Active learning invites students into the learning process by requiring them to engage in meaningful hands-on learning activities. Active learning is often contrasted to the traditional lecture where students passively receive information from the instructor (Bonwell and Eison, 1991). To be actively involved, students must engage in such higher-order thinking tasks as analysis, synthesis, and evaluation (Wiggins & McTighe, 2005).

Assessment

Assessment is an ongoing process to improve student learning, assist in communicating expectations of both instructor and student; to establish criteria for learning; and for the purpose of systematically gathering, analyzing, and interpreting evidence in order to determine student achievement of course learning outcomes (Angelo, 1995, Harlen, 2012). Assessment cannot be considered in isolation but rather within the context of a course, and thus contributing to the constructive alignment of the course. Student performance on course assessments help in communicating to learners and course instructors student understanding of course content and to what extent students are achieving course learning outcomes (Biggs, 1996; McDowell, 1996).

There are two main types of assessment: formative and summative assessment. Formative assessments are used to gather information about students' learning (Weston & McAlpine, 2004), and may or may not involve grading. By contrast, summative assessment is used for the purpose of reporting and decision making about the learning process that has (or has not) taken place (Harlen, 2012). This type of assessment is typically done at the end of the learning process and will involve marking and the assignment of grades to students. It is important that assessment be both continuous as well as summative.