Constructive Alignment

The constructive alignment model was developed by the Australian psychologist John Biggs. It integrates learning outcomes, learning rooms, and exams. A central idea of this model is that it tests only those skills that are announced, worked through, and trained.

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Teaching A-Z: Constructive Alignment

Have you ever had the experience of disappointing results from a course: students who lack independence, who passively sit in a lecture room, barely motivated, and who believe their exam results are unfair? Students bored by long monologues, who have exam anxiety, who can't anticipate what will be on the exam, who don't understand their grades because there are no clear criteria for them except for a simple point system?

Such courses hinder the possibilities of what a university can and should actually provide and don't sufficiently prepare students for their later professional life. How is this situation viewed under the lens of constructive alignment?

An example

A typical teaching-learning scenario in which the constructive alignment is missing looks something like this: teachers think about what subjects they want to teach, but not in terms of what students can do with the subject at the end of the course. Your teaching goals are written something like: "Students know the fundamental principles of..." By this teaching goal you mean, for example, that students can work out concepts from the literature and that they can use them to find their own theory-driven arguments for their points-of-view. Or that they can design structures that can be supported by appropriate calculations and technical specifications, whose selection they can justify. The teaching goals that teachers have in mind are mostly in the area of instrumental procedural knowledge ("knowing how"), but are presented as lists of content and therefore are thought of by the students as declarative knowledge ("knowing what") that they simply "need" to "know."

If you work according to the constructive alignment model, you avoid "gaps" between your expectations and the performance of students. You write a learning outcome that makes transparent what competency levels you want your students to strive for. You design learning rooms in which the actions of students are precisely described, and design an exam that confirms whether your students can achieve the complexity that they should have.

"Learning is constructed by what activities the students carry out; learning is about what they do, not about what we teachers do. Likewise, assessment is about how well they achieve the intended outcomes, not about how well they report back to us what we have told them." ($\overline{\Delta}$ John Biggs)

The constructive alignment model can be illustrated with a triangle in which the three elements of the learning process are related to each other: you as a teacher, the students, and the goal of the course.



Relationship of the teaching goal

Teachers know what students must be able to do in order to be well-trained graduates in their field: what knowledge they need, the kind of logical thinking they should possess, and the types of cognitive and motivational processes they should be able to complete with this knowledge. You as teachers have a broad overview of all the major subject areas as well as a deep understanding of the subject-specific action requirements, both of which serve as a basis for your course concept.

Relationship to student goals

Students have an idea of the subject and its contents, but are not yet capable of competent action in terms of this content – precisely what your course should provide. Your teaching should be designed so that the students can be self-reliant, and find the motivation to learn so that they can acquire new concepts and integrate them into their existing knowledge.

Relationship teacher-students

Your task is therefore to create learning activities for students so they can develop the necessary competencies. You yourself have already gone through this learning process as part of your professional and academic training. Because of your training and expertise, it is often a challenge to break up a topic into small steps so that students can act in their field competently and independently. Three tools can help guide the learning activities: a well-formulated \neg Learning Outcome; clearly structured \neg Learning Rooms for the duration of the course; and reliable, valid exams with transparent grading criteria.

With constructive alignment you can also:

Teacher-students relationship

- explain to students what they will learn
- develop learning rooms that enable goal-oriented competence acquisition

Teacher-goal relationship

- formulate performance criteria in terms of what students should be able to generate

Students-goal relationship

- design exams so that they really test what should be learned (validity), and
- objectively identify from the results what level of performance was achieved (reliability)



References

<u>Ahttp://www.johnbiggs.com.au/academic/ constructi-ve-alignment/ (22.10.2014)</u>

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