

# Students' Perceptions of Constructive Alignment: Validation of a Data Collection Instrument

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# Development of the concept of constructive alignment

- ▶ Prof John Biggs
- ▶ Prof John Biggs later collaborated with Prof Catherine Tang on research related to Constructive Alignment

Biggs, J., & Tang, C. (Eds.). (2011). *Teaching for quality learning at university* (4th ed.). McGraw-Hill and Open University Press.

# Constructive Alignment

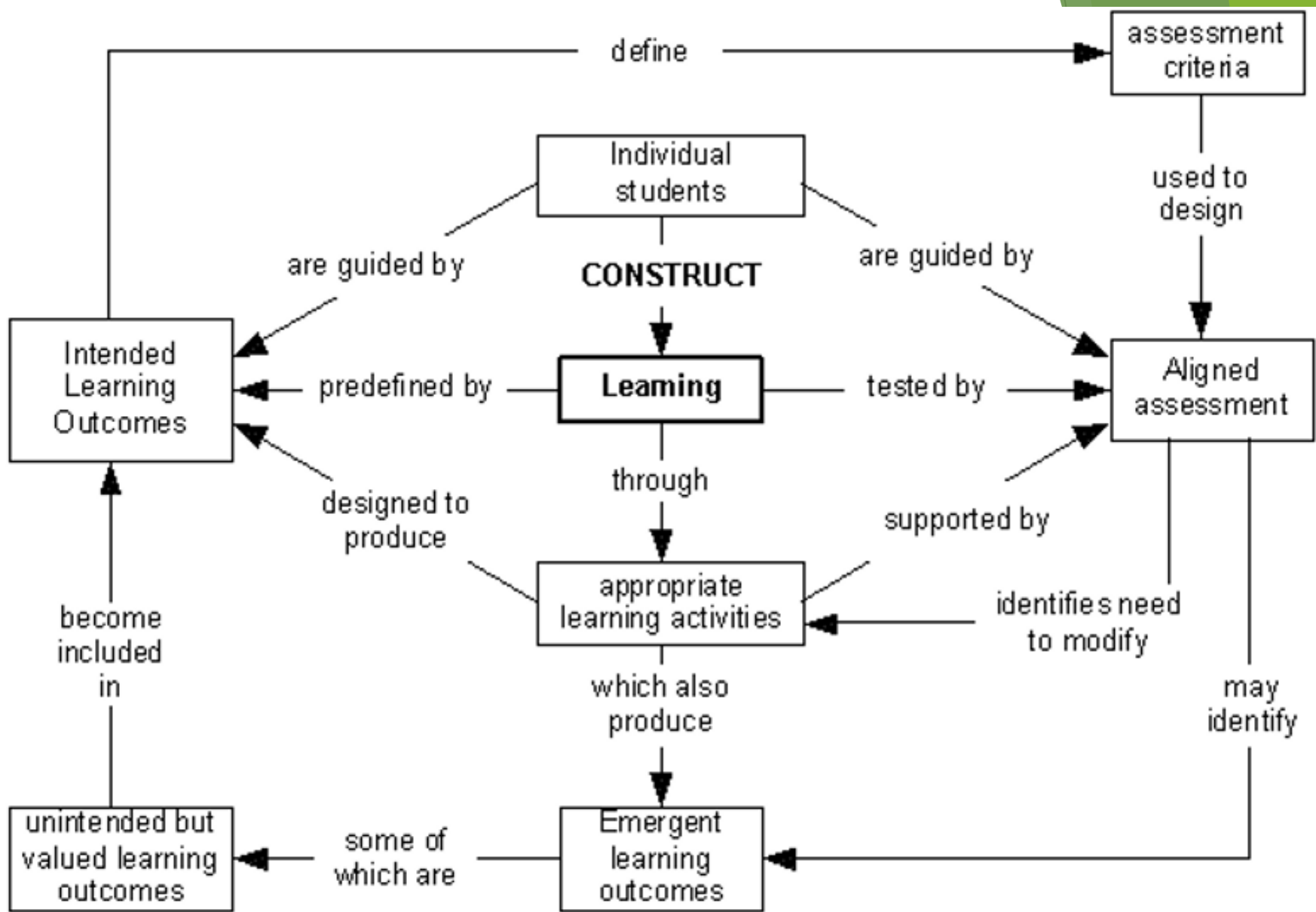
A principle used for devising teaching and learning activities, and assessment tasks, that are related to and directly address the intended learning outcomes



Developed to open up the opportunity to utilise alternative assessment tasks, such as portfolios.

# *Constructive Alignment*

- ▶ Describe the intended learning outcomes (ILOs) using a verb or verbs that denote how the content is dealt with by the student and in what context.
- ▶ Create a learning environment using teaching/learning activities (TLAs) that address that verb and that are therefore likely to bring about the intended outcome.
- ▶ Use assessment tasks (ATs) that also contain that verb, together with rubrics that enable judgements as to how well students' performances meet the criteria.
- ▶ Transform these judgments into standard grading criteria, using agreed rubrics, to which the student is privy, by means of which the quality of the solution as a whole may be judged.



# Student Evaluation of Teaching and Learning

- ▶ University of Tasmania gathers student feedback at the end of each semester through eVALUate – Student Evaluation of Teaching and Learning Surveys
- ▶ Occurs at the end of units
- ▶ Questions are broad and general
- ▶ Other forms of student evaluation are time consuming and laborious - e.g., student interviews



## Putting the Student Spotlight on Constructive Alignment

- ▶ The goal was to develop and validate a tool to gather evidence of students' perceptions of a given unit in relation to:
  - (1) the intended learning outcomes of the unit,
  - (2) how well the teaching/learning activities in that unit help students achieve those outcomes,
  - (3) how well the assessment tasks address what students are supposed to learn, and
  - (4) how feedback given to students supports expected learning.

# Designed the Constructive Alignment Learning Evaluation Questionnaire (CALEQ)

- ▶ Four sections that align with core principles of Constructive Alignment and Feedback
- ▶ Administered online to students from five 1<sup>st</sup> or 2<sup>nd</sup> year units
- ▶ Administered during the semester break after results had been submitted to the Examinations Office
- ▶ Likert Scale responses - five levels of agreement
- ▶ 120 participants



# Clarity of ILOs

- ▶ I had a clear idea of what I was supposed to learn.
- ▶ I was given a clear idea of what I needed to be able to do with the topics learnt.
- ▶ I was never in doubt about what I was supposed to be learning in this unit.
- ▶ The unit documents clearly outlined what I was supposed to learn.
- ▶ I was constantly reminded of what I was supposed to learn during the unit.



# Teaching Alignment

The teaching and learning activities addressed what I was supposed to learn.

The teaching and learning activities helped me learn what I was supposed to learn.

I was provided the opportunities to actively participate in what I was supposed to learn.

I was provided a variety of activities that helped me learn what I was supposed to learn.

I was given clear and specific instructions as to what to do in learning what I was supposed to learn.

# Assessment Alignment

- ▶ The assessment tasks addressed what I was supposed to learn.
- ▶ It was explained clearly to me how the assessment tasks were related to what I was supposed to learn.
- ▶ The assessment tasks provided opportunities for me to demonstrate how well I had achieved what I was supposed to learn.
- ▶ The grades that I received indicated fairly how well I had achieved what I was supposed to learn.
- ▶ I received useful feedback on how well I had achieved what I was supposed to learn.

# *Feedback Effectiveness*

- ▶ I received feedback that related directly to the assessment criteria.
- ▶ I received feedback that was clear and specific to what I was supposed to learn.
- ▶ I received feedback that helped me prepare for the next assessment task.
- ▶ I could take action to improve my own learning based on the feedback provided.
- ▶ I was able to make informed judgments about my own work from the feedback provided.



- ▶ *Clarity of ILOs (a = .92)*
- ▶ *Teaching Alignment (a = .93)*
- ▶ *Assessment Alignment (a = .92)*
- ▶ *Feedback Effectiveness (a = .95)*

Cronbach  
Alphas ( $\alpha$ )  
calculated




# Internal Consistency

- ▶ Cronbach's alpha is an indication of how closely related a set of items are as a group.
- ▶ Where  $\alpha$  exceeds .9, the scale is considered highly internally consistent and reliable.
- ▶ Given the very high Cronbach's alphas of each scale it is justified to use them in ensuing analyses.

# Preliminary Factor Analysis

## Oblique Rotation in Method - Oblimin

- ▶ Only two major scales and one minor scale were found.
  - ▶ 64% of variance was defined by *Clarity of ILOs and Assessment Alignment*.
  - ▶ The second factor of 8% of variance was defined by *Feedback Effectiveness*.
  - ▶ A small factor of 4% of variance was defined by *Teaching Alignment*.
- ▶ The strong association between ILOs and assessment could either mean that teachers teach to the test and the students focus on that or that the assessment tasks are aligned to the intended learning outcomes.

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- ▶ Although the factor analysis did not confirm that the four CALEQ scales were independent, each is conceptually distinct to the others.
  - ▶ Each scale addresses a different aspect of teaching; therefore, CALEQ has the potential to be used diagnostically to see where alignment or feedback may be deficient and so where attention and remediation may take place.



# References

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- ▶ Raeburn, P., Muldoon, N., & Bookallil, C. (2009). Blended spaces, work-based learning and constructive alignment: Impacts on student engagement. In R. Atkinson & C. McBeath (Eds.), *Same Places, Different Spaces. Proceedings ascilite 2009* (Proceedings of the 26th Annual ASCiLiTE International Conference, Auckland, Dec 6-9, pp. 820-831. Auckland: University of Auckland, Auckland University of Technology & ASCILITE, 2009. Retrieved from <http://www.ascilite.org.au/conferences/auckland09/procs/>
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