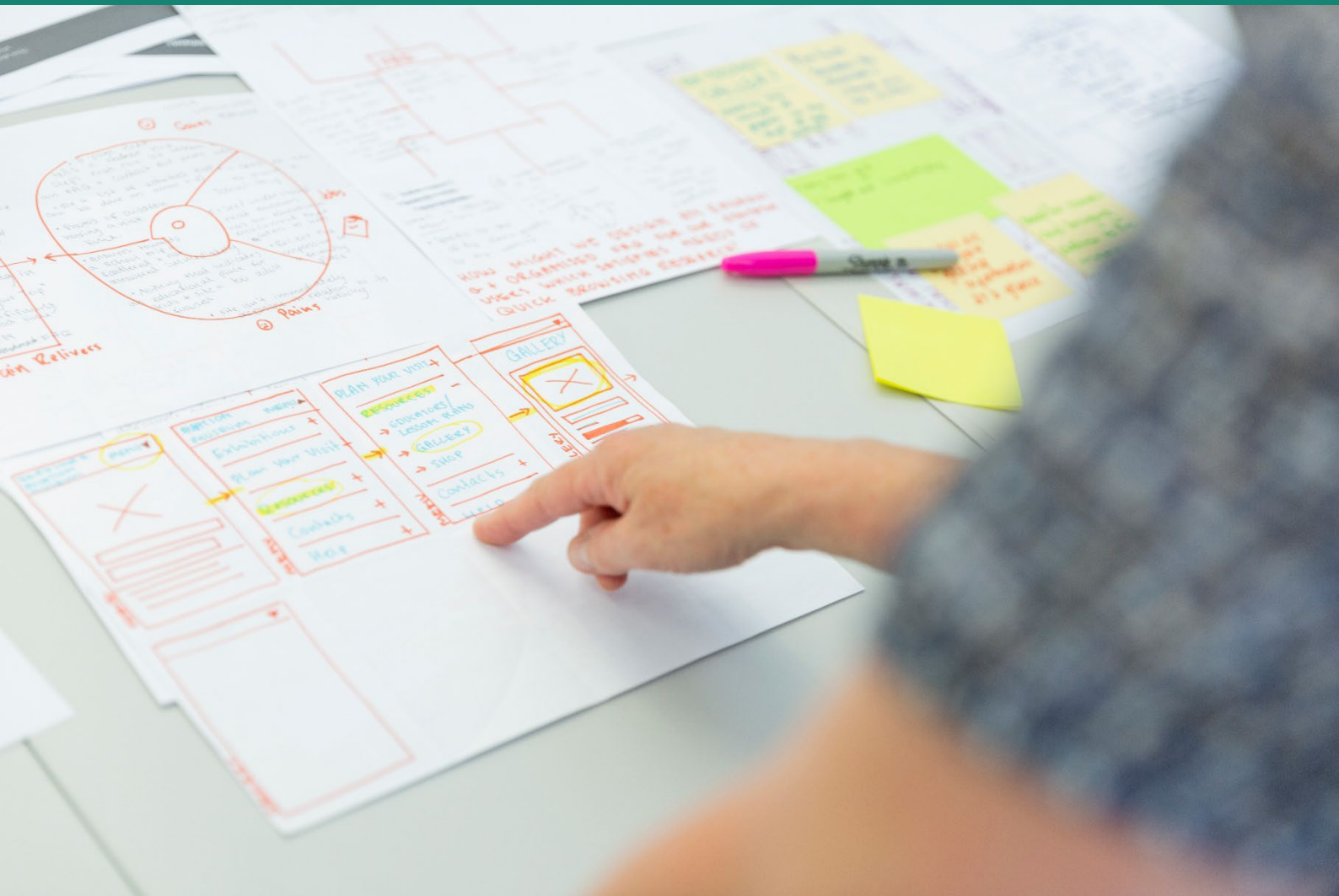


**FOCUS ON: LEARNING DESIGN**

# **ALIGNING TEACHING, LEARNING, AND ASSESSMENT TO LEARNING OUTCOMES**



# CONSTRUCTIVE ALIGNMENT – AN OVERVIEW

Designing effective and inclusive learning requires aligning programmes and modules in terms of their outcomes, teaching, learning and assessment strategies. This is known as constructive alignment. It ensures the teaching and learning experience on a programme is consistent, transparent and robust.

Constructive alignment is linked with deep learning, enhanced engagement, inclusive learning environments and positive outcomes for mental health. Apart from benefits for students, constructive alignment can ease staff workload by minimising duplication of content, ensuring skills are scaffolded and developed across a programme, and reducing the need for extrinsic motivators (e.g., assessing attendance) for engagement.

## WHAT IS CONSTRUCTIVE ALIGNMENT?

Developed by educational psychologist John Biggs, constructive alignment – also commonly known as an “outcomes based approach” – is the theoretical foundation of learning design in higher education. It has two core components:

- Students “construct” meaning through relevant learning activities
- Educators design learning opportunities that support students achieving the learning outcomes (LOs) and assessments that directly address the LOs

The alignment between learning outcomes, teaching, learning and assessment is visualised in Figure 1 overleaf.

### Does it work?

Learning environments that align LOs, teaching and learning methods and assessment tasks **promote learning and enhance students’ learning experiences** (Biggs & Tang, 2007). A vast body of literature supports this, including the below.

A mixed method study by Wang et al. (2012) compared an intentionally constructively aligned programme with one that adopted these principles on an ad hoc basis. An analysis of a post-course questionnaire revealed that learners in purposefully constructively aligned courses were more likely to take a “**deep learning**” approach to their study on the course.

This finding is supported by Roßnagel, Fitzallen, and Lo Baido (2021), who surveyed 56 second-year students across different programmes. They found that “**good course design alone** – in terms of constructive alignment – may **boost student motivation**, sparing instructors the need to come up with additional, ‘extrinsic’ ways (e.g., bonus assessments) to increase motivation.”

### UoR students want assessments aligned to LOs

In 2021, [the Student Panel](#) was asked whether assessment criteria are linked to learning outcomes on their course or not. While they did not use the language of constructive alignment, they agreed constructive alignment principles were beneficial for their learning. One student said clearly outlining “what learning objectives a specific assignment seeks to address ... is useful because it demonstrates how the assignment fits into the module and shows its purpose and how it help you in the long-term with the overall module.”

### How to constructively align your teaching and assessment

Achieving constructive alignment requires three basic steps:

1. Define effective learning outcomes – see [CQSD-ADE’s learning outcomes guide for advice](#).
2. Design authentic formative and summative assessment methods that will support students’ learning and enable accurate evaluation of whether students have met the LOs or not. See [CQSD-ADE’s Assessment for Learning advice](#).
3. Design teaching and learning activities that will a) support learners to construct meaning, b) undertake the assessment and c) meet the learning outcomes.

“Constructive alignment’ starts with the notion that the learner constructs [their] own learning through relevant learning activities. The teacher’s job is to create a learning environment that supports the learning activities appropriate to achieving the desired learning outcomes. The key is that all components in the teaching system - the curriculum and its intended outcomes, the teaching methods used, the assessment tasks - are aligned to each other. All are tuned to learning activities addressed in the desired learning outcomes. The learner finds it difficult to escape without learning appropriately.” – Biggs (2003)

## CONSTRUCTIVE ALIGNMENT IN ACTION

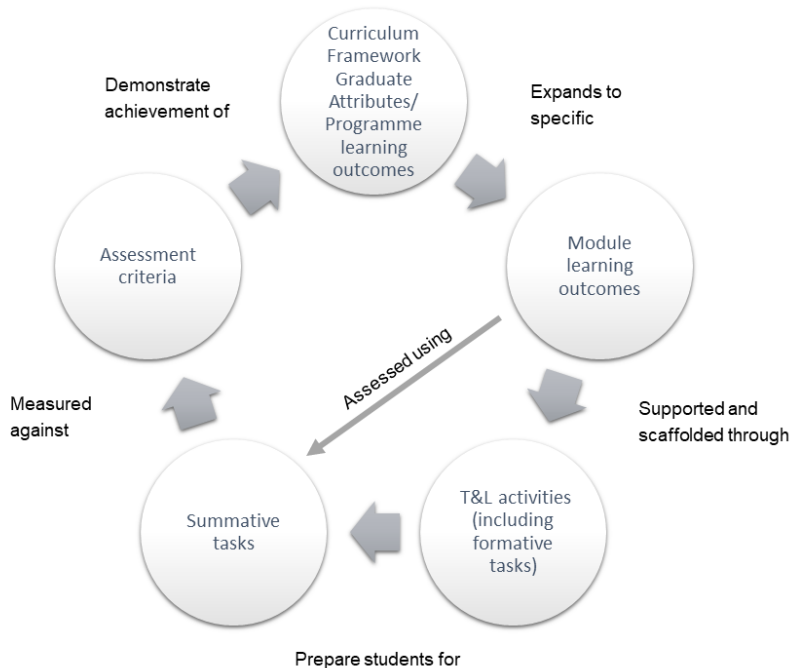


Figure 1. Adapted from Biggs, J. (2014). [Constructive alignment in university teaching](#). *HERDSA Review of Higher Education*, 1, 5-22.

Following constructive alignment principles will embed this clarity into your curriculum and teaching.

## CONSTRUCTIVE ALIGNMENT AND COHERENCY

The first principle of the [Curriculum Framework](#), which underpins teaching and learning activities at the University, is **coherency**. In the Curriculum Framework, this is taken to mean programmes are “purposefully designed to ensure that modules form a coherent integrated and blended whole.” Aligning teaching, learning and assessment to the learning outcomes of programmes and of associated modules – in other words, achieving constructive alignment – is essential to realising coherency. For more on this, see the [Coherent & Sustainable Programme Structures guide](#).

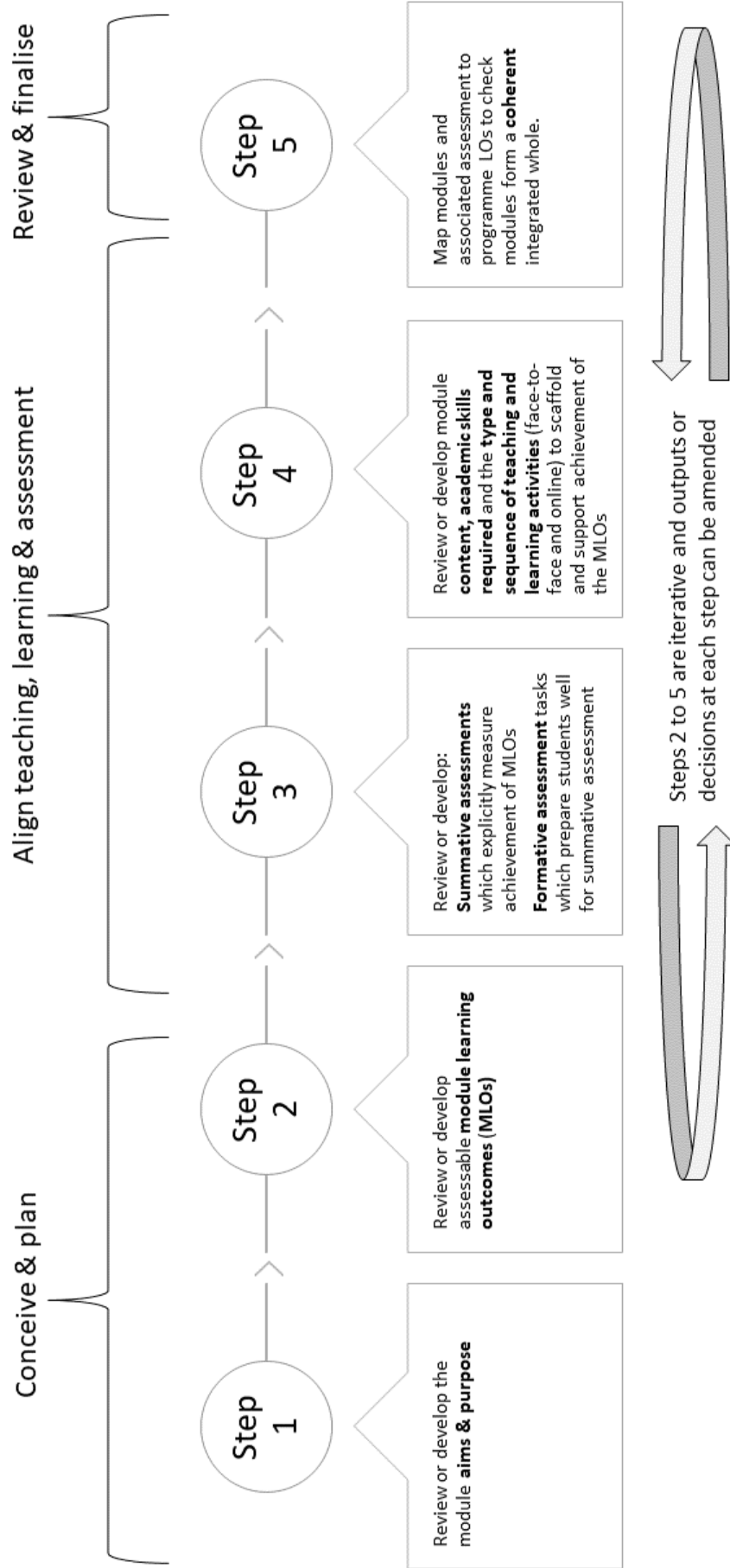
## CONSTRUCTIVE ALIGNMENT IN PRACTICE

On the next page (p. 4) is a step-by-step overview of how to constructively align your modules. This five-step model can be used for either new modules or established modules undergoing redesign. You can also [download a PDF version of this diagram](#) on CQSD-ADE’s website.

### Constructive alignment, clarity and student mental health

Following constructive alignment principles ensures your teaching will be delivered with clarity. Advance HE’s [Education for Mental Health Toolkit](#) highlights the “statistically significant” impact that clarity of teaching and assessment has on student motivation and learning. The following is adapted from the toolkit:

- Ensure taught content and learning activities are specifically designed to address LOs.
- Lessons must be systematically organised, focused on assessment *for* learning and moving towards summative assessment when student knowledge, comprehension, and competence are developed over time.
- A coherent curriculum needs to provide a narrative framework for concepts and facts to connect together. This will offer students “a sense of momentum in learning.”
- Clarity in teaching is required, including using multiple techniques and activities.
- Clarity in assessment – required academic skills and knowledge are embedded across the programme, so assessment supports learning.



## A QUESTION-LED APPROACH

The following questions will get you started with constructive alignment by helping you to focus on aligning the aims and purpose of the programme/module, the LOs, the T&L strategy or approach, and the assessment.

- What is its purpose of the programme/module?
- What do we want graduates to know and be able to do?
- What academic skills do students need to master to be successful at the assessment task?
- What teaching and learning approaches will best support students to develop the knowledge, skills and attributes necessary to achieve the LOs?
- What assessment tasks (and criteria) will help the design team and students demonstrate that the LOs have been met?

### Useful reference points for programme learning outcomes

Programme learning outcomes and possibly other aspects of the alignment at the programmatic level should be informed by relevant internal and external considerations, including UoR graduate attributes and QAA Subject Benchmark Statements. See the [LO guide for further advice](#).

## SUMMARY

Enhancing **engagement and inclusivity** begins with constructive alignment. If learners clearly understand the learning pathway through the programme, how they can achieve the aims and how its constituent parts link together, then they are more likely to engage with each learning and assessment opportunity.

To contact us to discuss how constructive alignment can work for your programme or module and explore other guides in our Focus On: series, please visit <https://www.reading.ac.uk/cqsd/teaching-resources>



## References and further reading

Biggs, J. (2003). Aligning teaching for constructing learning. *Advance HE*. <https://www.advance-he.ac.uk/knowledge-hub/aligning-teaching-constructing-learning>

Biggs J., & Tang, C. (2007). *Teaching for Quality Learning at University: What the Student Does* (3<sup>rd</sup> ed.). McGraw-Hill.

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Roßnagel, R.S., Fitzallen, N., & Baido, K.L. (2021). Constructive alignment and the learning experience: relationships with student motivation and perceived learning demands. *Higher Education Research & Development*, 40(4), 838-851. <https://doi.org/10.1080/07294360.2020.1787956>

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