

Webinar #1 Topic: *Scaffolding learning for constructive alignment*

Webinar #1 Challenge:

Critically review and provide feedback to a subject lead on an existing tertiary subject.

The aim is to scaffold learning for constructive alignment, ensuring that learning outcomes, activities, assessment, and experiences are aligned.

The session involves analysing the alignment of a fictitious scenario, identifying areas for improvement, and proposing strategies for coherence enhancement. The focus will be on redesigning learning outcomes, aligning activities and assessments accordingly, and creating engaging learning experiences.

Participants will be divided into a cross-disciplinary team for hands-on design, brainstorming, and share their group discussion in a collegial supportive environment.

By the end of the session, participants will have valuable insights and guidance to effectively scaffold learning and create a coherent learning journey that aligns all aspects of the subject.

Targeted participants are adult learners across subject teaching teams and learning designers seeking to enhance their skills and knowledge in scaffolding learning for constructive alignment. Learners from diverse backgrounds and experience levels are all welcome!

Breakout group – what to do:

In your group, you have 20mins to complete this activity:

- Carefully review the case study scenario (next page).
- Consider and discuss the two core questions about how Rebecca can scaffold learning for constructive alignment.
- Add your (re)design ideas in the Google slides (link to be provided during the session).
- Present your group's (nominate a speaker or everyone) ideas and designs back to the main forum. Aim for 3-5mins.

Core questions to be discussed in group:

1. What did Rebecca do well in this subject design?
2. What could Rebecca do better to scaffold learning for constructive alignment?

Other questions to ponder:

1. What are the theories in play here?
2. Do you notice any framework applied by Rebecca?

CASE STUDY SCENARIO

Background

Dr. Rebecca Lawson is a passionate chemistry Senior Lecturer teaching a second-year undergraduate chemistry unit. Rebecca firmly believes in the importance of constructivist learning and wants her students to actively engage in the subject matter. She aims to align her teaching practices and assessments with the subject learning outcomes to enhance student understanding and achievement.

Previous semester's student feedback highlighted limitations in real-world application of activities, difficulty grasping theoretical concepts, and challenging assessments, leading to a low success rate. Students expressed the need for accurate experimentation in science units. Based on this feedback, Rebecca has made changes to the activities and assessments to address these concerns. Rebecca's proposed subject changes are provided below.

NOTE: *Feel free to make up your own assumptions.*

Subject name: CHEM2FO Chemistry Intermediate

Teaching context: Undergraduate, second year core unit with 150 students

Teaching format: 2 x 1.5hr lectures (online) and 1 x 2hr laboratory session per week (face to face)

Teaching resources: Textbook, lecture slides, laboratory manuals

Assessments: Weekly quizzes (10%), Laboratory reports (30%), Midterm exam (20%), Final exam (40%)

Subject learning outcome: Apply theoretical knowledge of chemistry to solve real-world problems and conduct experiments accurately.

Teaching Approach: Constructivist Learning Theory - Rebecca adopts a constructivist teaching approach, emphasising active learning and hands-on experiences. She incorporates interactive elements, discussions, and problem-solving activities into her lectures to encourage students to construct their understanding of chemical concepts. By using real-world examples and case studies, she aims to bridge the gap between theory and practical applications.

Activities: Laboratory Sessions (2 hours per week)

- Laboratory experiments mirror real-world scenarios, allowing students to apply theoretical knowledge in practical settings.
- Students work individually, conducting experiments, analysing data, and drawing conclusions.

Assessment: Laboratory Reports (30%)

- Students submit detailed laboratory reports, documenting their experimental procedures, observations, and data analysis.
- The assessment focuses on students' ability to apply theoretical knowledge, accurately conduct experiments, and interpret results.

Activities: Problem-Solving Sessions (Integrated into lectures)

- Challenging chemistry problems are presented during lectures, encouraging students to actively participate in solving them.
- Students work individually or in small groups to apply their theoretical knowledge and problem-solving skills.

Assessment: Midterm and Final Exams (20% and 40% respectively)

- The exams assess students' understanding of theoretical concepts and their ability to apply them to solve complex chemistry problems.
- The questions require critical thinking, analysis, and application of knowledge to real-world scenarios.

--End of case study scenario --