Scaffolding
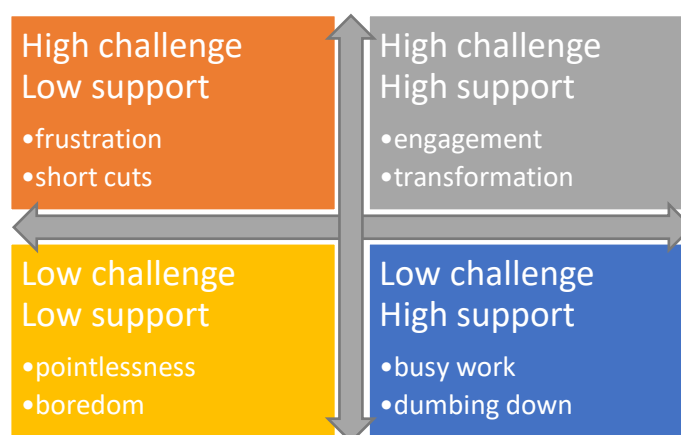
What is scaffolding for learning?

Scaffolding describes the support that leads to learner development and, ultimately, learner autonomy. Effective scaffolding helps learners to construct knowledge and perform tasks beyond their current capacity thus building confidence and capability and enabling learners to perform more advanced tasks once the scaffolding support is removed.

Guidelines for effective scaffolding

Scaffolding should be carefully planned to develop learners' capability to achieve a defined goal and to undertake more complex problems in the future. You should attempt to:

- Challenge learners with tasks which are beyond their capacity. Match 'high challenge' tasks with relevant 'high support'. If the support is poor or unavailable, learners will soon lose interest, be frustrated or lose confidence.
- Avoid low challenge tasks which could be perceived as futile, uninteresting and "busy work".

High challenge Low support	High challenge High support
•frustration •short cuts	•engagement •transformation
Low challenge Low support	Low challenge High support
•pointlessness •boredom	•busy work •dumbing down

Source: Mariani's Scaffolding framework in Wilson, K. & Devereux, L. (2014)

Scaffolding is a four-staged process that moves students beyond their current skill and knowledge level. Scaffolding must occur in a supported learning environment.

Stage 1: Estimate foundation knowledge

Estimate the knowledge and skills learners currently have, including what a learner can do *with* guidance and assistance and what the same learner can accomplish *without* that.

Stage 2: Introduce new task

Familiarise learners with a new task they cannot do on their own. Model the performance of the task. Learners work with you and with each other on similar tasks to become acquainted with it.

Stage 3 Provide appropriate scaffolds

Design learning activities and formative assessment tasks (practice activities, sub-tasks, reference resources, templates, examples, graphic organisers, flow charts etc) for learners to access as they work on tasks that are more complex than the one previously undertaken, and build their capability.

Stage 4 Demonstrate mastery of new knowledge

At this stage, learners are able to independently demonstrate mastery of the task, unaided by the instructor. Summative assessments may fall into this category.

Scaffolding for assessment

Assessment is a critical area where scaffolding learners is necessary. Formative assessment is a common strategy that instructors use to move learning forward. Generally, the higher the stakes, the stronger the scaffolding required. A suggested process would be to:

1 Critique all assessments individually and across the unit. Determine the prerequisite knowledge and skills necessary to successfully complete each assessment. Make a list of these.
2 Decide whether it is reasonable to expect learners to have these prerequisite knowledge and skills. If not, these are the skills and content that learners need assistance with and scaffolded in.
3 Review the unit to identify where such learning experiences can be purposefully introduced.
4 Develop a series of learning experiences and a variety of learning opportunities specifically targeted to build the necessary knowledge and skills allowing students the opportunity to learn and practice before attempting any summative assessments.
5 Design and sequence a series of sub-tasks within a high-challenge task (eg. A summative assessment) ensuring that the support is commensurate with the challenge.
6 Link this intentional connection of scaffolding to content by requiring learners to demonstrate their mastery through a well aligned assessment.
7 Provide a curriculum map demonstrating the relevance of the deliberately designed scaffolding activities and how they intentionally build learners' capability towards undertaking the assessments.
8 Offer alternative and additional scaffolding experiences for those learners who have not demonstrated the required understanding as part of formative feedback.

Examples of scaffolding writing, research & group work tasks:

- Select short readings to embed in *Before Class Activities* and direct attention to specific aspects to extract notes from. This could be done with the use of a document builder and questions to answer during the text reading

  These short answer research questions can then be revisited during class discussion and later used to build longer written responses in the form of illustrating central concepts in essays and journal type assessment tasks

- Templates for research projects may involve a Google Doc/Wiki with structured heading sections for the group to contribute to throughout the block and culminating in a group report and presentation

- After-Class revision Interactive Learning Objects (H5P) highlighting an understanding of key material

  The next step could be in drawing on this understanding to analyse a specific case study and identifying the concepts in various scenario perspectives. This could be in the form of a decision making/ branching scenario Learning Object (H5P).

Ultimately, this guided incremental process will develop the ability to construct an original proposition that can be clearly and convincingly tested and delivered in later University years.

Tips

1 Be critical of the scaffolding assistance you provide. Not all assistance is helpful as assistance can disempower and create a dependency for support.
2 Learners should be able to stand alone as a result of undertaking the scaffolding process and be independent rather than be reliant on the instructor support. Gradually decrease the support and shift the responsibility for learning to the learner.
3 Design tasks that require learners to transfer their learning to other related tasks that are a level more sophisticated or complex.

Want to know more?

Websites

- Scaffolding your students' learning, *Inclusive Teaching in higher Education* (2018). University of Wollongong <https://www.uow.edu.au/dvca/socialinclusion/inclusiveteaching/UOW157268>
- Zone of Proximal Development and Scaffolding in the Classroom. Psychology 102: Educational Psychology. <https://study.com/academy/lesson/zone-of-proximal-development-and-scaffolding-in-the-classroom.html>

Related articles

- Wilson, K. & Devereux, L. (2014). Scaffolding theory: High challenge, high support in academic language and learning (ALL). *Journal of Academic Language & Learning*. 8(3) 91-100. <http://journal.aall.org.au/index.php/jall/article/viewArticle/353>