Scaffolding Student Learning: Forest Floor Example

Increased disengagement of today’s generation of post-secondary students from traditional lectures, combined with the increasing pervasiveness of digital technologies, has prompted interest in blended learning. Often, blended learning is implemented through instructional scaffolding, where a variety of instructional techniques move students progressively toward a stronger understanding and greater independence in the learning process.

In an article recently published in *Natural Science Education*, researchers described the development of a scaffolding instructional module focused on forest floor for the second-year Introduction to Soil Science course at the University of British Columbia. Forest floor, as a mixture of various vegetative residues found at the soil surface in different stages of decomposition, offers a rich learning example of a complex natural ecosystem.

The scaffolding module includes a campus-based lecture and demonstrations, online educational resources, a self-guided activity performed on the university campus aided by a mobile game application, and other activities. In addition to discipline-specific knowledge, the module allows students to develop a range of skills such as teamwork, project management, and management of complex issues. These represent skills needed in the natural resource management industries.

A scaffolded module may take longer to implement, but in the end, it results in a rewarding experience for both students and instructors. This study provides a framework for incorporation of the instructional scaffolding to other post-secondary courses, especially those that are interdisciplinary and applied in scope.


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