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Gently stretching to reach all students

Inclusive learning through scaffolding and flexible pedagogy

This article is based on a workshop offered at the 2020 VALE/ACRL-NJ/NJLA-CUS Users' Conference.

Being flexible and responsive to students' unique learning needs is a powerful skill in any teaching context, but it is perhaps especially valuable in one-shot library instruction, when a librarian has limited time with students and is often meeting them for the first time. Because librarians frequently enter the classroom with limited information about a class's dynamics and its students' current understandings, abilities, and interests, we often find ourselves needing to adapt in the moment of teaching more than we would if we had a more extensive connection to that class.

At the same time that librarians are skilled in being flexible and adaptable in the moment, we also recognize the need for designing and structuring learning experiences in advance with learners' needs and interests in mind.

This article explores how flexible pedagogy (which fosters student choice and agency) can work in tandem with instructional scaffolds that provide structured guidance for learning. A flexible approach to scaffolding that balances structure and pliancy can foster more inclusive learning environments that honor students' unique strengths, interests, and needs. This helps to optimize the potential for learning for all students.

As stated in Ryerson University's "Flexible Learning Resource," "A movement towards flexible learning supports a more equitable experi-

ence of education for all learners."¹

Flexible scaffolding

Scaffolding, perhaps one of the most widely discussed approaches to structuring learning experiences, involves opportunities for incremental learning experiences that build on students' prior knowledge and skills. As students grow their understandings and abilities, they are able to approach problems and tasks more independently. Instructional supports can then be gradually removed in order to foster deeper and more self-directed learning. Though scaffolding is sometimes viewed as rigid, it can be used flexibly, being added, removed, or bent as needed for the given situation.

While scaffolding can be developed more extensively for credit courses and academic programs, it is also an important element of shorter-term instruction, including library instruction sessions. Librarians often incorporate some degree of scaffolding intuitively, sometimes without recognizing that this is what we are doing. Think-Pair-Share activities are a good example of this: first students are asked to develop a response to a given prompt, a process that activates prior knowledge and prepares students to build on it. Next students articulate their thinking to someone else and

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listen to that person's ideas, during which time both people can consider different viewpoints and potentially generate new understandings or ideas together. Finally, pairs share their ideas with the larger group, a process through which individuals are exposed to a still wider range of perspectives and can further build on or challenge prior learning.

This is just one example of how scaffolding is often characteristic of how librarians design instruction, even if it isn't labeled as "scaffolding." Think-Pair-Share activities also reflect that scaffolding, while providing structure, can bend to the particularities of a situation. Within the overall frame of a Think-Pair-Share activity (e.g., an open-ended discussion prompt, the three parts of the activity) there can be a great deal of room for differing ideas and interpretations and for engaging with a question from varying angles or degrees of depth.

Flexible pedagogy and the messiness

As Think-Pair-Share activities illustrate, scaffolding can take many forms and can involve varying degrees of structure and open-endedness. While a scaffolded set of class sessions or online tutorial modules might look on paper like a linear and neat process, librarians know first-hand that learning is messy, with starts and stops, circling back, relearning, and sometimes the need for unlearning. Learning tends to look less like an escalating one-directional staircase and more like a spiral, as is suggested in Jerome Bruner's idea of a "spiral curriculum."² Within a spiral, curriculum core concepts are returned to repeatedly in order to invite learners to engage with those concepts with increasing levels of depth, as they draw on prior learning and deepen their understanding and abilities over time.

In comparison to the concept of scaffolding, the terms *flexible pedagogy* and *flexible learning* appear in education to be less commonplace and less well defined. Though there is no single clear definition of flexible education,³ flexible pedagogy is in principle about "giv[ing] students choices about when, where, and how they learn." Often this is described as the "pace, place, and mode of learning."⁴

As explained by Stuart Palmer, flexibility can be offered through:

- pacing/timing,
- content (topics covered, sequencing, the types of learning materials, assessment methods),
- instructional approach/design (group learning, individual or independent learning, format of learning resources), and
- delivery (place of study, methods of support, communication channels).⁵

As students exercise greater choice and agency in their learning process, they also construct meaning and connect new understandings and knowledge with their lived experiences.

Flexibility in higher education: Why now?

Flexible learning and flexible pedagogies are receiving growing attention as the landscape of higher education continues to shift, with fewer students following a traditional four-year path of completing college as full-time students or entering college shortly after high school graduation. Instead, many students complete college with multiple starts and stops, come to higher education at a later time in their lives, and/or work full-time while completing their degrees. Students thus bring with them a range of professional and life skills and experiences, while also juggling multiple responsibilities and demands.

Engagement with flexible pedagogy principles and practices involves considering the "pedagogical questions that arise about the purposes and outcomes of HE [higher education] in an era of increasing 'flexibility' informed and facilitated by technological changes, globalisation of the sector, rising participation and changing employer expectations." It also can help "build the capability of learners to anticipate and engage with the future and to navigate through complexity, uncertainty and change."⁶

At the same time, the many paths through which students enter and move in and out of higher education present challenges to developing sequential curricula. Even when students have completed a sequential curriculum they

usually have not fully “mastered” the content. The emphasis in flexible education on allowing for multiple entry points into learning and of allowing more room for student choice and agency is in many ways better aligned with the nonlinear and organic nature of learning.

That said, the concept of flexible pedagogy is not free from critique. Much of the rhetoric around flexible pedagogy falls in line with the increased commodification of higher education and limited focus on college as little more than career training that uncritically reinforces the status quo and unequal power structures. Critically examining how flexible pedagogy and flexible learning are enacted in different contexts is essential to meaningful and critical engagement with it.

Nonetheless, the core principles of flexible pedagogy—considering how students can have more choice and agency in their learning and how teachers can be more responsive to students’ varying needs and interests—remain admirable goals. Flexible pedagogy’s limitations can be balanced largely (though not exclusively) with the use of *flexible* scaffolding and with an appreciation for both good faith efforts to support all students and the inevitable limitations of any teaching context.

Two catalyzing questions

Because flexible learning can take many shapes, it can be difficult to know where to begin in relating it to one’s teaching. Per Bernard Bergamin et al. offer two generative questions that can serve as starting points. Paraphrased, these are:

- In what ways do students have greater control over their learning? (In what ways are they active and constructive learners?)
- How are learning resources designed to meet learners’ varied needs?

Teachers’ responses to these questions, of course, depend greatly on context. Although more extensive contact with students presents more possibilities for assignments and activities in which students exercise greater choice (for example teaching a semester-long course), even in a one-shot session there are often more

possibilities for flexible learning than we might first see.

Consider, for example, a common scenario in a one-shot session: students are developing their research topics, and each is at a different stage in this process. Some have no idea what to research, others have identified a broad topic they will need to narrow, and another group has narrowed their topic but still hasn’t defined a focused research question. Some are familiar with library databases and advanced search strategies, while others are learning about library research tools for the first time. How can we develop learning activities that can support all of these students in their process during the session? Benjamin et al.’s questions may again be useful:

- In what ways do students have greater control over their learning? (In what ways are they active and constructive learners?)
- How are learning resources designed to meet learners’ varied needs?

To give students more control over their learning, perhaps a librarian allows class time for independent work, during which students can talk one-on-one with the librarian or course instructor about their topic and their research process. Or maybe students work in small groups to sharpen the focus of a shared research topic, and they prepare to share their process with the larger class. With either approach students can be active and potentially self-directly in their learning, while also having supports (or scaffolds) available to facilitate their process. Those scaffolds might include, for example, in-class modeling, small group work on a focused task, question prompts, worksheets, or individualized feedback from the librarian or instructor.

Another common situation in one-shot instruction is when students are identifying key search terms in order to locate sources for their research topics. Some students easily find useful keywords and relevant sources. Others have more challenging topics and are struggling to identify search terms. Perhaps the class is asked after a short period of searching to share about the successes and challenges they had with keyword searching, a conversation that

involves meaning making and an appreciation for the different research scenarios in which each person is engaged.

The class might then experiment in small groups and/or in the larger group with one of the more challenging searches. Or students might be given the option either to continue working individually or in pairs on keyword searching or to focus on other aspects of their research process, as the librarian checks in with individuals and small groups. These are just a couple of possible approaches: the direction that a class takes hinges upon students' interests and needs in that situation. Flexible pedagogy principles can help to generate thinking about those possibilities.

The familiarity of the two instruction scenarios described above illustrates that often librarians apply flexible learning and scaffolding principles automatically. But thinking more intentionally about how students can have greater control over their learning and how learning resources meet their different needs can strengthen these efforts, as we look to balance the degrees of structure and flexibility built into our instruction and as we seek more openings for students to experience greater choice and agency in their learning process.

Closing thoughts and questions

Balancing the need for structure and flexibility is often a delicate dance, especially when a librarian enters a classroom as a one-time visitor. How do we design learning experiences that are structured enough to provide students with helpful degrees of guidance, but that are open-ended enough so that students feel welcome to bring their own experiences, strengths, and interests to learning? While our answers to these questions are highly contextual and dynamic, the following considerations can facilitate more intentional engagement with flexible scaffolding and flexible pedagogy:

- considering students' prior knowledge and experiences,
- balancing structure and flexibility (including through the use or removal of scaffolds),
- identifying constructive places for choice,
- creating prompts for students' reflection on their own needs and interests, and

- fostering metacognition (thinking about one's own thinking and process) and self-regulated learning.

Identifying various ways that we scaffold our instruction may also help us to balance the needs for flexibility and structure in learning. Common scaffolds (e.g., Think-Pair-Share activities, warm-up activities like brainstorming and word clouds, question prompts, sequential assignments, online instruction resources) can simultaneously provide some structure and encourage flexible and self-directed learning. Particularly when so many students and educators are teaching remotely and seeking ways to experience more agency in the learning process, the principles of flexible pedagogy and flexible scaffolding can help to spark the creativity and curiosity that are at the heart of engaged teaching and engaged learning.

Notes

1. Michelle Schwartz, Natalie Roach, Saba Anwar, Jacalyn Tanner, Ryan Thistle, Learning and Teaching Office, and Ryerson Mental Health & Wellbeing Committee, Policy & Procedures Subcommittee, "Flexible Learning Resource," Ryerson University, p. 1, <https://www.ryerson.ca/content/dam/learning-teaching/teaching-resources/teach-a-course/flexible-learning.pdf> (accessed May 21, 2020).

2. Jerome S. Bruner, *The Process of Education* (Cambridge: Harvard University Press, 1960).

3. Schwartz et al., p. 2.

4. Schwartz et al., p. 6.

5. Stuart R. Palmer, "The Lived Experience of Flexible Education: Theory, Policy and Practice," *Journal of University Teaching and Learning Practice* 8, no. 3 (2011): 1–16.

6. Alex Ryan and Alex Tilbury, "Flexible Pedagogies: New Pedagogical Ideas," The Higher Education Academy, November 2013, https://www.heacademy.ac.uk/sites/default/files/resources/npi_report.pdf (accessed May 21, 2020), p. 4.

7. Per Bernard Bergamin, Simone Ziska, Egon Werlen, and Eva Siegenthaler, "The Relationship between Flexible and Self-Regulated Learning in Open and Distance Universities," *The International Review of Research in Open and Distributed Learning* 13, no. 2 (2012): 101–123. *✍*