

Learning That Transfers

Just because a student solves a new problem, reads a new text, conducts a new experiment does not mean they will gain the full benefits of learning that transfers. Students must intentionally call upon their conceptual organization when encountering a new situation. We can create a culture of transfer using the strategies found here.

Transfer Strategy #1: What Concepts Live Here?

To create learning experiences that leverage students' prior knowledge and create a culture of transfer, consider frequently posing the question, *What concepts live here?* alongside interesting quotes, pictures, videos, news headlines, historical documents, complex mathematical problems, etc. that can capture student attention (Paterson, 2019). Students can simply jot down or call out the concepts that they notice. This focuses student attention on the underlying structure of every situation and creates the habit of mind to access prior knowledge when encountering a new situation.

We have found this strategy fun and helpful as we go about our world. When scrolling through social media or reading the news, we can take any place, event, or problem of interest and think to ourselves, *What concepts live here?* This reflective step can propel our planning to new and uncharted territory. Rather than viewing our learning outcomes or standards as constraints that do not apply to different or relevant scenarios for our students, we can instead plan backward from real-world scenarios and see how they do indeed fit with our mandatory learning outcomes.

We believe this question can also be posed to students for them to analyze a novel scenario or real-world problem. Students can approach any task or learning experience with curiosity by asking themselves about the concepts or the conceptual relationships they see based on what they have learned prior to this moment. This simple question is a beautiful way to act as a catalyst for group brainstorming when contemplating any new context or lesson.

Transfer Strategy #2: Unlock and Refine

Once students build the habit of recognizing the concepts that apply in new situations, they should take it a step further by considering how the nuances of each new situation refines understanding. We do not want transfer to simply confirm student conceptual connections. Each new situation helps to refine our grasp of the organizational structure of our world. These four steps can be posted in the classroom to promote habitual reflection:

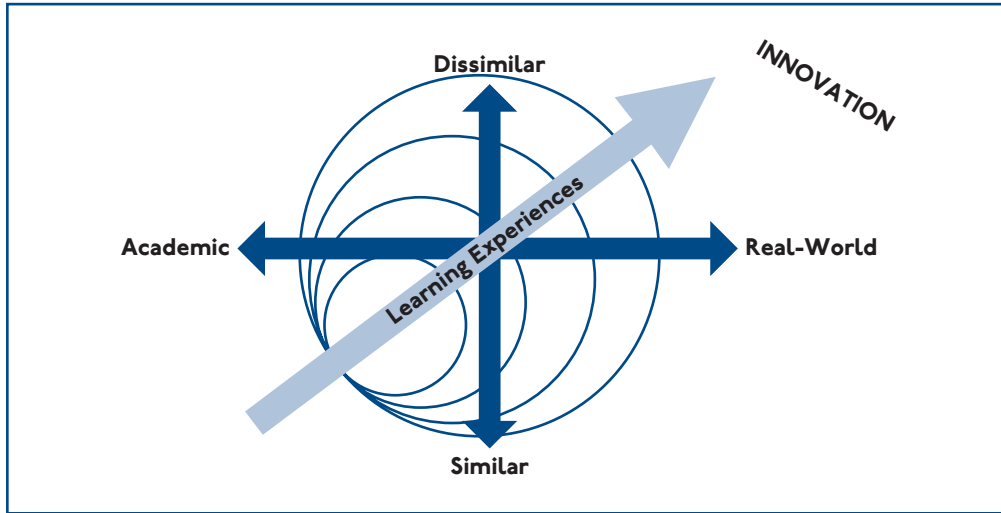
1. **Recognize the concepts that apply:** Which concepts are at play in this situation?
2. **Engage prior understanding of the conceptual relationship:** What do I already know to be true about the relationship among these concepts? What specific examples support my understanding?
3. **Determine the extent to which prior understanding applies:** What makes this new situation different from the situations I've seen in other learning

experiences? Does what I understand about the relationship between these concepts apply to this new situation? Which parts of my prior understanding transfer and which don't?

4. **Modify and refine understanding based on the new situation:**
How has transferring to this situation refined or reshaped my thinking? (Stern et al., 2017)

Considering these questions as we begin planning or co-creating learning experiences helps to ensure we're creating the best environment possible for students to transfer their learning. Figure 8.25 illustrates how learning would ideally progress throughout a unit or series of learning experiences moving from simple to complex transfer. We want to intentionally move from academic to real-world transfer and from similar to dissimilar transfer through learning experiences toward real-world, dissimilar transfer.

Figure 8.25 Leading to Innovation



SOURCE: Adapted from Stern et al., 2017.

We are designing instruction to help students acquire, connect, and transfer their understanding of concepts and conceptual relationships across the Learning Transfer Spectrum. The strategies presented up to this point should be woven throughout learning experiences to help students explicitly share and refine their current thinking.

An additional strategy that promotes students learning transfer is debate. Debates increase engagement and promote transfer by providing relevant topics, encouraging diverse perspectives, and creating space for critical thinking and reasoning. One of our favorite debate strategies is known as Divide and Slide.