Transfer in the Classroom: Strategies to Improve the Transfer of Writing Skills

[adapted from Ambrose et. al., *How Learning Works* (2012); Fitzgerald, “The Problem of Transfer” (March 2013); and O’Malley “Understanding Transfer” (2009)]

Focus on Prior Knowledge:

- **Gauge the Extent of Prior Knowledge:**
  
  - Use Exercises that Generate Prior Knowledge
  - Explicitly Link New Material to Prior Knowledge
  - Teach through Analogy and Example to Everyday Knowledge Explicitly Identify Expected Prior Knowledge
  - RemEDIATE Insufficient, Inaccurate Prior Knowledge Highlight Conditions of Applicability
  - Explicitly Identify Discipline-Specific Conventions
  - Ask Students to Make and Test Predictions
  - Ask Students to Justify Their Reasoning
  - Provide Multiple Opportunities for Students to Use Accurate Knowledge
  - Allow Sufficient Time

Focus on How Students Organize Knowledge:

- Concept Map: draw connections
- Task Analysis: chart developments
- Organizational Schema: spell out steps
- Contrasting and Boundary Cases: analyze through comparison
- Deep Features: emphasize underlying structures
- Multiple Organizational Schema: encourage taxonomic thinking
- Sorting: expose surface vs. deep learning

Focus on Teaching for Transfer

- Discuss Conditions of Applicability
Apply Skills of Knowledge to Diverse Contexts
Generalize to Larger Principles
Specify Context to Identify Skills or Knowledge
Specify Skills or Knowledge to Identify Contexts

Focus on Motivation By Establishing Value and Expectancies

Connect Material to Students’ Interests
Provide Authentic, Real World Tasks
Demonstrate Relevance of Higher-Level Skills to Future Endeavors
Identify and Reward What You Value
Articulate Expectations
Ensure Alignment of Goals, Assessment and Strategies
Provide Rubrics
Identify Appropriate Level of Challenge Provide Opportunities for Early Success Provide Targeted Feedback Provide Opportunities to Reflect

Before Instruction

Deciding What to Teach

Design instruction around principles and concepts that have transfer potential. Most knowledge is what investigators label “inert,” “passive,” “local,” or “contextually bound” meaning that it does not transfer. Much of what is taught in schools falls under the umbrellas of these terms. If we don’t see the possibility for transfer in what we plan to teach, it is highly unlikely that the students will.

A motivational consideration: select transfer tasks (especially initial ones) that are challenging but not impossible. The concept of transfer may be new to students. You may be placing them in unfamiliar territory when you ask them to transfer. If they perceive transfer to be unachievable, you may lose the game after a single move.

Target Near Transfer

The literature suggests that “far transfer” occurs rarely. Build lessons around problems or tasks that you believe will appear reasonably similar to the learner. Widen the distance between initial learning and novel task as students encounter success and grow more confident

Salomon and Perkins (1988) discuss “hugging” as a strategy for promoting near transfer. Hugging involves organizing your lesson so that the initial learning (e.g. a skill) “hugs” the most desired transfer task closely.
WAC Academy: What do we really value?
Summer 2014

Time for Learning

Set aside sufficient time for initial learning that is deep and thorough. Some investigators found that transfer failed because the initial learning did not occur. Do not ask students to transfer what they have not mastered.

Rubrics

Develop rubrics that include transfer as a criterion and discuss them with students so that students are made aware of the value that you’ve assigned to it. Noting how infrequently studies report successful acts of transfer, you may want to weight the transfer criterion lightly or feature for “bonus points” (see rewarding transfer below) until you get reasonable evidence that your transfer instruction is actually working.

During Instruction

Make Transfer Explicit

Explain transfer and its value to students. Be very explicit in describing transfer as the instructional target. We are more likely to do something if we are aware of it, know what it is, and are convinced of its value.

Model Transfer

Show your students examples of transfer. Ask them to work together, engage in some “mindful exertion,” and generate examples of their own.

“Bridging”

Salomon and Perkins (1998) use the term “Bridging” use to describe strategies for teaching “far transfer.” They recommend tasks that invite students to complete analogies (e.g. Civics 1, K-3 “A classroom without a teacher is like a __________ without a ___________?”) and describe applications (e.g. History 2, 6-8 “In what other circumstances might the skill of analyzing for credibility prove valuable?”).

Use Visual Representations

Create graphic organizers that you can use frequently and that leave durable imprints. Invite students to describe their initial learning in the blank spaces to the left and the transfers they’ve made or propose in the blank spaces to the right.

Time Between Learning and Transfer Task

Expose students to the transfer task shortly after they have mastered the initial learning
(at least when you first start working with transfer). Try to get students to see the transfer possibilities quickly. Be patient as you look for the evidence of transfer, however. It may come days later after students have had time to process and incorporate other understandings.

Multiple Contexts

Teach the instructional target (principle or concept) in multiple contexts and make the connections between initial learning and varied contexts explicit.

Patterned Instruction

Present principles and concepts in patterns that allow the students to see the learning target stripped from its original context and deployed or assimilated in a new context:

- Contextualize – decontextualize – then recontextualize.

Teach the principle or skill in an initial context.

Remove the principle from its context and examine it with the students.

Then, demonstrate the vitality of the principle or concept in a new context

Prompt then Wean

Studies indicate that transfer is most likely to occur when students are given prompts that draw their attentions to the initial learning and the possibility of transfer (e.g. “Can you think of something you did earlier that might be relevant or that might help you find a solution?”). Wean them off the prompts as they begin prompting themselves.

“What if” Problem Solving & Generalizing

Introduce students to a problem after initial instruction (e.g. teaching a skill, principle, concept). Encourage them to use the initial learning to come up with a solution. Then, make adjustments to the problem (e.g. “‘what if’ the problem changed in the following way ______? Would your solution still work? If not, try to find a solution that solves both problems."

After you introduced a few “what if” problem modifications, ask the students to refine their solutions so that the solutions apply to most or all of the modified problems. Discuss the generalizability and value of the new solutions.

After Instruction
Reward/recognize transfer (as well as attempts at it)

Metacognitive Activities

Coach students to ask themselves questions about how learning might be transferred. Encourage them to think regularly about transfer and the ways in which principles and concepts might span contexts.

Transfer Homework

Assign homework involving transfer like tasks that engage students in the search for analogies, examples, and applications of the initial learning.