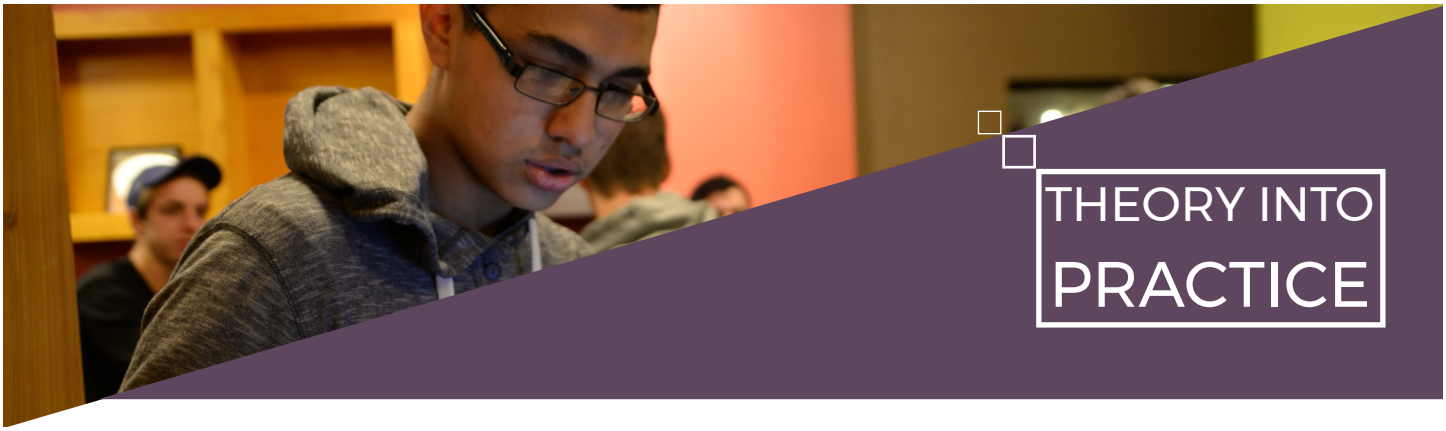

THEORY INTO PRACTICE

THEORY: THE SWEET SPOT FOR LEARNING: VYGOTSKY'S ZONE OF PROXIMAL DEVELOPMENT AND INSTRUCTIONAL SCAFFOLDING

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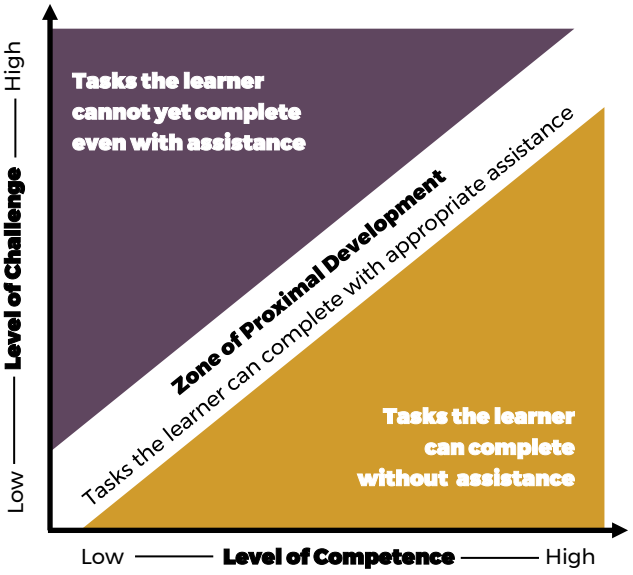
Early stage theories of child development assumed that a child's stage of development determined the child's capacity for learning. (Vygotsky, 1978). (For example, early stage theorists claimed that young children could not engage in deductive reasoning because they lacked the cognitive development necessary to process information in this way.) A child's development or maturation was viewed as a precondition of learning (Vygotsky, 1978).

Positioning himself against early stage theorists, Lev Vygotsky argued that learning could actually accelerate the child's development (Vygotsky, 1978). Rather than defining a child's developmental by what the child can do independently, he argued that we should define a child's development by what a child can do with assistance. He refers to the distance between a child's "actual development as determined by independent problem solving and potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" as the Zone of Proximal Development (ZPD) (1978, p. 33).



Vygotsky's (1978) Zone of Proximinal Development

The ZPD is sweet spot of learning— the space between what a learner can do independently and without much effort and tasks that are so challenging that a learner finds them frustrating. In this space, a learner can acquire knowledge and skills with support or guidance from teachers or more knowledgeable peers.

INSTRUCTIONAL SUPPORT OR SCAFFOLDING

Within a learner's ZPD, instructional scaffolding can help the learner bridge between dependence and independence in learning. Defined by Wass, Harland, and Mercer, scaffolding is "the support a learner is given to attain a goal or engage in a task otherwise out of reach" (2011, p. 319), in a movement from high teacher-dependence to low teacher-dependence (p.323). Stone, as cited in van de Pol, Volman, and Beishuizen, poses this process as "a fluid, interpersonal process in which both participants are active. Both participants build a foundation of common understanding or intersubjectivity through communicative exchanges in which the student learns from the perspective of the more knowledgeable other" (2010, p. 272). Instructional scaffolding within a learner's ZPD prompts learners to "take responsibility for their own thinking and maintain engagement with complex issues" (p. 323). However, scaffolding requires students to be proactive, which is not always comfortable.

PRACTICE

FORMAL STRATEGIES FOR SCAFFOLDING

Formal strategies for scaffolding include: the spacing and pacing of assignments, the careful selection of supporting texts or activities, and a focus on critical thinking. Informal strategies for scaffolding include peer support, peer and teacher conversations, and role-modeling by the faculty member. Other strategies include:

EARLY ASSESSMENT OF STUDENTS' KNOWLEDGE AND SKILLS. Information about students' knowledge and skills can help a faculty member assess the range of experiences in a class and design effective support structures.

FEEDING BACK*. Providing students with frequent and timely information about their own performance can help students to determine where they stand in acquiring new skills.

INSTRUCTING*. Direct communication about specific processes can assist students and internalize those processes.

CONNECTING WHAT IS NEW TO WHAT A LEARNER ALREADY KNOWS. Students' prior knowledge serves as a scaffold for their future learning. For this reason, explanations that involve analogies are especially useful in a student's learning.

HINTS OR QUESTIONING*. Clues or suggestions from faculty or peers can help students see the start of the path forward through a particular concept, assignment, or course. Hints can draw attention to some aspect of a problem that students may be missing and may be presented in the form of leading questions.

ASSIGNING PARTIALLY WORKED PROBLEMS. Partially worked problems help students to focus on one aspect of problem-solving at a time. This strategy assists students in grasping a problem-solving sequence and practicing different problem-solving skills.

EXPLAINING OR MODELING*. Clarifying expectations, processes, or critical thinking procedures can give students confidence in moving through problem-solving. Demonstrating skills, habits, or processes as models worthy of imitation can help students visualize and achieve particular outcomes. This is especially useful if a faculty member can articulate their own strategies for disciplinary problem-solving.

BREAKING DOWN COMPLEX PROBLEMS, TEXTS, OR PROCESSES INTO THEIR COMPONENT PARTS. When learners encounter new information, they can easily be over-burdened cognitively. When faculty break complex problems or processes down into their component parts and help students to master each of these parts they help to ease a learner's cognitive load.

COLLABORATIVE GROUP PROBLEM-SOLVING. More knowledgeable peers can serve as instructional scaffolding for less knowledgeable peers and model different problem-solving strategies.

*Strategies found in 10 years of scaffolding research (in van de Pol, Volman, and Beishuizen p. 278).

BIBLOGRAPHY

Redd, Brandt. (2014, December 20). The Zone of Proximal Development [Digital image]. Retrieved April 6, 2017, from http://classroom-aid.com/2014/12/20/game-design-and-the-zone-of-proximal-development/

van de Pol, Volman, M., & Beishuizen, J. (2010). Scaffolding in teacher—student interaction: A decade of research. *Educational Psychology Review*, (3), 271.

Vygotsky, L. S. (1978). Mind in society: The development of higher mental process. Cambridge, MA: Harvard UP.

Wass, R., Harland, T., & Mercer, A. (2011). Scaffolding critical thinking in the zone of proximal development. *Higher Education Research and Development*, (3). 317.