FLORIDA LITERACY AND READING EXCELLENCE
PROFESSIONAL PAPER

VYGOTSKY

Scaffolding and the Zone of Proximal Development

“The only good kind of instruction is that which marches ahead of development and leads it; it must be aimed not so much at the ripe as at the ripening functions.”

Lev Vygotsky

Thought and Language (revised edition), 1986, p. 188

VYGOTSKY IN CONTEXT

Lev Vygotsky, a Russian psychologist, is most noted in the pedagogical world for his research related to thought and language development. Vygotsky was born in 1896 to a middle class Jewish family in the town of Orscha in Belorussia. His father, manager of a bank, was well educated, actively supported the local library through monetary gifts, and provided his children with an unconventional education. Lev Vygotsky was educated at home by tutors until the junior high school years when he attended the Jewish gymnasium. Vygotsky excelled at the gymnasium, and his writings show that he was an accomplished intellectual as a teenager.

Even though Vygotsky had the highest academic credentials for admission to the University of Moscow, his Jewish heritage limited his opportunity to participate. He was accepted to the Medical School of Moscow University by a lottery process, which allowed for three percent placement of Jewish students. Soon after gaining entrance, he changed his major graduating in 1917 with a degree in law; and upon graduation Vygotsky became a teacher in a provincial school near his parents’ home. Then, in his mid twenties and with declining health, he took a position at the local teacher’s college (Vygotsky, 1978; 1986).

Vygotsky’s doctoral thesis and subsequent lectures elevated him to academic prominence in his late twenties. His genius was immediately recognized by Alexander Luria who provided a research fellowship at the Moscow Academy of Psychology. Although Vygotsky never received formal psychological training, he was recognized as an original thinker about methods of psychological study. Conflicting philosophies and theories existed in Russia and throughout the world concerning the emerging science of psychology in the 1920’s and 30’s, including those of Piaget (constructivism), Watson and Skinner (behaviorism), Freud (psychoanalysis), Koffka (Gestalt psychology), and Montessori. Vygotsky espoused the belief that the field of psychology could not limit itself to direct evidence only, but should take into account the unseen conscious mind (Bodrova, & Leong, 1996; Vygotsky, 1978; 1986).

The political climate following the Russian revolution and the ascendancy of communism limited the advancement of the science of psychology. Pressure was put on Vygotsky, and others, to adapt their theories to comply with Marxist ideology. Even so, Vygotsky continued to lecture, conduct research, and publish in the field of psychology. At the time of his death from tuberculosis in 1934, he had written 180 works in a variety of fields (Vygotsky, 1978).

Vygotsky’s work remained unknown in America for decades. His work was not published in English until 1962, when the monograph, Thought and Language, was first translated. Intensive decade-long projects at Harvard University and The Massachusetts Institute of Technology have provided educators and researchers with translated, edited scholarly versions of Vygotsky’s work. Many more manuscripts remain to be translated (Bodrova, & Leong, 1996; Vygotsky, 1978; 1986, 1987).
THE VYGOTSKIAN FRAMEWORK

A summary of the Vygotskian framework includes these basic underlying principles:

- Children construct knowledge.
- Development cannot be separated from its social context.
- Learning can lead development.
- Language plays a central role in mental development (Bodrova & Leong, p. 8).

THOUGHT DEVELOPMENT AND SOCIAL INTERACTIONS

Social context is critical to the development of mental processes and the acquisition of knowledge. Vygotsky had unique insight concerning how children can learn mental processes through shared experiences with adults. No longer do we consider cognition as internal mental processes only accessible to the individual (Bodrova & Leong). According to Vygotsky, social interactions have a profound effect on how and what people think. The close relationship between first-born children and the parent usually results in a child with a larger vocabulary than subsequent children. Social interactions are powerful motivators and provide models of language and problem solving. Similarly the larger structures of the family, school, and the wider cultural context of the society affect the way a person thinks (Pressley, 2002). A baby born in Africa who daily rides upon the back of its mother as she cultivates a garden will have different thought and language patterns from a child who rides a subway daily to nursery school in Chicago.

INNER SPEECH AND THOUGHT

Vygotsky wrote about the concept of inner speech as the brief words and fragments of speech that support the thought processes of adults as they engage in routine and complex tasks. He observed that inner speech was more evident in complicated tasks than in simple tasks. Other psychologists have noticed that some people actually subvocalize their inner speech when engaged in highly challenging tasks. Sokolov found that subvocalization of reading became more intense as texts and associated tasks that were assigned became more challenging (Pressley, 2002).

DEVELOPMENT OF INNER SPEECH

Vygotsky learned that young children under the age of two years do not associate language with thought. By two years of age, children begin to exhibit what is known as egocentric speech. Egocentric speech occurs when preschoolers talk about their actions as they are performing them. For example, a toddler may say, “I’m washing my hands” as they rub their hands back and forth under a water faucet at a sink. Just as with inner speech, the amount of vocalization increases as the task becomes more difficult. Egocentric speech becomes more “covert and abbreviated” as children mature but can reappear when the child faces a difficult task. This phenomenon is evident in school aged children as well. Children who read text automatically or fluently usually read silently; but when words are encountered that are difficult, subvocalization may reappear as a tool to support thinking for word solving. Teachers often notice students “sounding out” difficult words while reading (Pressley, 2002, p 95).

THE ZONE OF PROXIMAL DEVELOPMENT (ZPD)

The National Research Council in How People Learn provides this summary of Vygotsky’s original work concerning the zone of proximal development:

The zone of proximal development is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers (Vygotsky, 1978, p. 86). What children can do with the assistance of others is even more indicative of their mental development than what they can do alone (p. 85).

The zone of proximal development embodies a concept of readiness to learn that emphasizes upper levels of competence. These upper boundaries are not immutable, however, but constantly changing with the learner’s increasing independent competence. What a child can perform today with assistance she will be able to perform tomorrow independently thus preparing her for entry into new and more demanding
collaboration. These functions could be called the “buds,” rather than the fruits of development. The actual developmental level characterizes mental development retrospectively, while the zone of proximal development characterizes mental development prospectively (Vygotsky, 1978. pp. 86-87) (Brandsford, Brown, & Cocking, 2000, p. 81).

Newman, Griffin, and Cole (1989) provide deeper understanding of the ZPD with the following ideas:

1. Both the child and the teacher struggle to understand each other within the zone.
2. Knowledge is co-constructed by the child and the adult within the zone.
3. No matter how many times we describe the goal of instruction the child will probably not fully understand it until he has learned the particular concept, skill, or strategy. (Bedrova & Leong, p. 44)

SCAFFOLDING AND MODELING

Students require intensive instructional support when learning important skills and strategies that are challenging and in the zone of proximal development. The gradual release of responsibility model requires variable amounts of assistance. In the first stage, the teacher has high responsibility for modeling and explaining the learning task. In the second stage, the teacher and student share responsibility for learning. The student practices or approximates the task, and the teacher gives constructive feedback. When students are ready for the third and final stage, they take on all or nearly all of the responsibility for the work. This model of gradual release is known as scaffolding.

Teachers who assess students to provide the right amount of challenge and reflect on how they can provide just the right support and its gradual release will have students who attain high levels of achievement (Morrow, Gambrell, & Pressley, 2003).

FURTHER IMPLICATIONS FOR INSTRUCTION

The instructional practice of using “think alouds” is related to the development of inner speech. Pressley reports that, “there were a number of American analyses suggesting that the development of self-directive speech plays an important role in the development of children’s self-regulation (e.g., Kohlber, Yaeger, & Hjertholm, 1968; Patterson & Mischel, 1976; Wozniak, 1972).” Pressley also notes that subsequent studies by Meichenbaum and Asarnow (1979) demonstrated that “comprehension strategies could be taught to middle-school students who could decode but were experiencing difficulties understanding what they read.” Today we would describe these instructional practices as “think alouds” to teach the in-the-head strategies or self-talk needed to maintain comprehension. Teacher modeling of self-talk regulation or think alouds is effective for teaching: main idea, sequence of events, and characterization (Pressley, p. 247-248).

CONCLUSION

The major learning from Vygotsky is that cognitive skills and strategies are taught from one generation to the next. Parents and teachers lead students to think and act in ways that they would not know or discover on their own. Children learn from listening and talking with a more knowledgeable person, but they also require scaffolding through demonstration, and actual participation in the task or activity in a realistic context. Effective teachers know that they cannot leave learning to discovery but must structure activities at the just-right level and support learning through conversation, modeling, and active participation in tasks (Pressley, 2002).
REFERENCES


