



Vygotsky's philosophy of education

School resources

Lev Vygotsky (1896-1934) was part of a group of revolutionary scholars who were working at the beginning of the twentieth century to create a new school of Soviet psychology. Vygotsky himself produced an impressive corpus of works in the span of his short lifetime. He is credited with establishing the foundation of cultural psychology and cultural-historical theory, which emphasised that human change and development, particularly the development of our thinking, is influenced by society and culture. This theory has been widely explored in relation to education, and has also provided support for fields such as positive psychology. His work was repressed under the Stalin regime and a lot of his theories were not widely disseminated until the 1980s. Because Vygotsky developed his work in a radically different social, cultural and political context, it is important to appropriate and recontextualise his work for our own time and situation.

The main features of Vygotsky's theory of education

Like [Piaget](#), Vygotsky emphasised learning as a meaning-making process, although Vygotsky's cultural-historical approach is characterised by an insistence that human thinking be understood as both an individual and a socio-cultural phenomenon. While he emphasised social, cultural and historical influences on thinking, Vygotsky also maintained a focus on the individual, with his concept of the **zone of proximal development**, for example (more on this below).

According to Vygotsky's theory:

Human action is situated in sociocultural, historical settings, and is mediated by tools and signs. All human actions, including thinking, are mediated by material and symbolic objects (tools and signs) that are culturally constructed and socially used. For example, a verbal explanation of a word meaning, or a procedure for a science experiment, works to mediate (intervene in, influence or change) the student's thinking. The ways in which students think, solve problems, and use concepts are related to their social and cultural context.

Students' development has a social origin. Vygotsky saw new cognitive capabilities for students, particularly higher mental processes such as problem-solving, logic and concept formation, as emerging first in interaction with others before being taken up by the student independently. For example, a teacher may help a student to solve a mathematical word problem by working through a set of questions to identify what they know and what they need to learn. The next time the student encounters a similar problem, he or she runs through the same questions in their mind, and the questions become a tool for the student's thinking.

Mediation of various kinds is crucial for human psychological and social development. All kinds of social processes and cultural resources are used by individuals in their thinking, and schools are a primary source for introducing students to many different mediational means, such as tools and artefacts, symbol systems, and specialised discourse. For example, discipline-specific concepts and language can help students to talk about the phenomena they notice in science, while number grids and squares in mathematics are tools that can help children to see the relationships between numbers more easily.

Learning precedes development. Vygotsky saw learning as leading development (rather than being dependent on it). Learning creates the conditions needed for development, so teaching should be aimed at the next stage of a child's development.

Cognitive development at any point in time is limited to a particular range known as the zone of proximal development (ZPD). The ZPD describes the learning an individual student is capable of, which is just beyond what he or she can achieve independently (it is 'proximal'). Students can only learn knowledge and skills that are in their particular ZPD, and will require the support and help of a more capable peer, the teacher or other mediational resources such as dictionaries, number lines and diagrams.

Scientific concepts are built on, and transform, everyday concepts. Everyday or spontaneous concepts ('dog', 'lizard') are based on our everyday experience of the world as it appears through our senses, while scientific concepts ('mammals', 'reptiles') are more systematic, so they can be more easily reflected upon and manipulated. For example, an understanding of the geometric concept of 'circle' is based on students' experiences of coins, wheels, and pizza, but enables a more generalised understanding of the shape.

What empirical evidence is there for this philosophy in practice?

Research does show that, generally, mediation improves language and thinking skills¹. In relation specifically to Vygotsky's theory of mediation, studies have found that mediating learning can result in improved thinking skills, performance and ability to learn independently², as well as independent problem solving and dealing with new challenges³. There is also some evidence to support the use of the ZPD in teaching⁴.

Vygotsky's influence on teaching practice

Vygotsky's theory and the idea of the ZPD in particular have had an impact on a variety of educational practices, including peer tutoring and scaffolding. Vygotsky's theory can also be considered to have had an impact on key practices such as assessment for learning, while most teachers are aware of capitalising on student's culture, community and environment as an influence on their learning and development, described here as a 'funds of knowledge' approach.

Scaffolding

The aim of scaffolding (which was not Vygotsky's term) is to offer assistance to ensure that a student is successful in their learning, so it has strong parallels to Vygotsky's concept of mediation in the ZPD. Rather than adapting the task, scaffolding supports students to complete it in one or more of the following ways:

- modelling the thinking or behaviours needed
- simplifying the student's role through intervention
- structuring problem-solving by reducing the degrees of freedom
- highlighting the critical features of the task
- providing a sounding board for students to discuss their ideas

At the earliest stages of the ZPD a student needs a sequence of simple and precise instructions. They come to understand tasks and directives as a result of performing them under guidance ('performance before competence'). As they gain understanding, they may only need encouragement or prompts. In

the school setting, scaffolding is often understood as the provision of frameworks (such as opening sentences or a series of headings), worked examples, clear performance criteria, or guidelines to help students to structure their learning. It is important to ensure that these more fixed and predetermined scaffolds are specifically responsive to each student's ZPD as Vygotsky intended.

Peer tutoring

Peer tutoring enables more students to be supported to reach a higher level of competence than would be possible if the teacher was the only mediator. Students need to be paired carefully, and may need coaching so that they are able to effectively assist each other. Peer tutoring might also involve students having different roles in the same task. For example, in learning a second language, it might be possible to pair a student who has strengths in vocabulary with a student who has strengths in grammar.

Funds of knowledge

A 'funds of knowledge' approach to teaching establishes social relationships with families to facilitate an understanding of how students' home lives can help mediate their learning in the classroom. Funds of knowledge are the strategies, adaptations and knowledge that families develop to assist them in their daily lives, and which can be drawn upon as a basis for learning academic concepts and procedures in the classroom. For example, if teachers learn that a family is involved in the cultivation and gathering of medicinal plants, they might relate these botanical funds of knowledge to the classroom science curriculum.

Assessment for learning (AfL)

AfL is a pedagogy in which teachers and students evaluate the student's current performance together, and agree strategies to address gaps in what they need to know or be doing to perform better. As such it represents an example of the student moving ahead of their current level of performance with the support of a more knowledgeable adult. However, where AfL conversations are constrained within pre-set goals and targets regulated by summative assessment routines and the need to help students to achieve particular grades and outcomes, there may be less overlap with Vygotsky's concept of ZPD, which is more individual, co-constructed and open to the intentions and motivations of the learner.

Reciprocal teaching

Reciprocal teaching is related to the concept of the ZPD. It is used in reading instruction, where a portion of text is read aloud or silently, before a 'learning leader' helps the group to comprehend what was read by engaging in specific reading strategies (questioning, clarifying, summarising and predicting). The teacher is the first learning leader and models strategy use, before each student has the responsibility of being learning leader. The aim is for students to monitor their own comprehension and to internalise some strategies for improving comprehension.

Dialogic teaching

Vygotsky's theory has been used to inspire a focus on interactive and collaborative organisations of teaching and learning that encourage students to learn from social interactions with peers and with the teacher. Dialogic teaching focuses on the co-construction of knowledge in social settings where students learn to use specific reasoning and argumentation strategies particular to specific domains of knowledge and to verbally elaborate, compare and discuss their developing concepts.

References & further reading

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Endnotes

1 Flavian, 2019.

2 Flavian, 2019.

3 Flavian, 2019.

4 Moll, 2014.

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