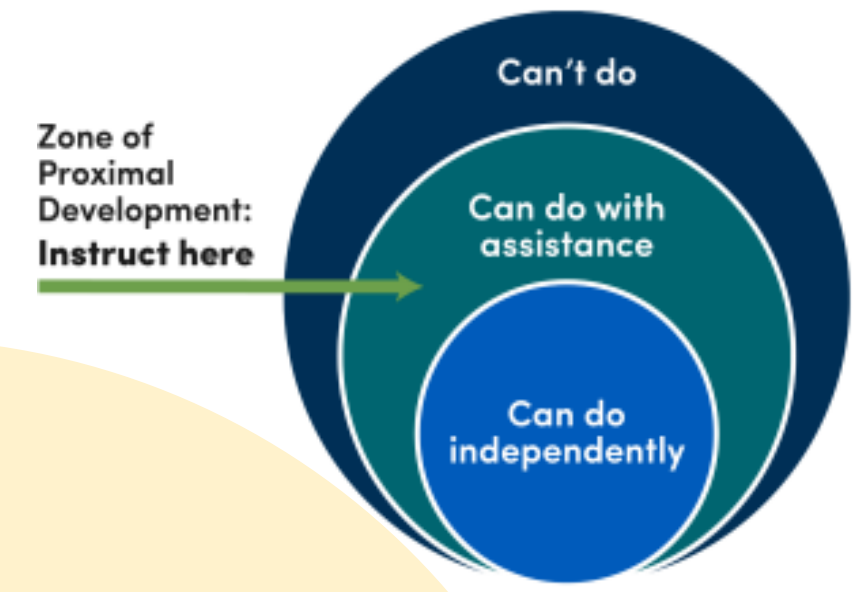


Lev Vygotsky's Theory of Cognitive Development

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Introduction

Lev Vygotsky was a Russian psychologist and teacher, (1896 ---- 1934).

"Vygotsky's sociocultural theory views human development as a socially mediated process in which children acquire their cultural values, beliefs, and problem-solving strategies through collaborative dialogues with more knowledgeable members of society."

Vygotsky was a Constructivist like Piaget. However, he took a socio-cultural stand-point and believed there was no independent structure or framework to development outside of social and cultural influences and upbringing.

He stressed the "fundamental role of social interaction in the development of cognition" because he believed community was central to the ability to form meaning and methods in which we reason.

CONSTRUCTIVISM: "an approach to learning that holds that people actively construct or make their own knowledge and that reality is determined by the experiences of the learner" (Elliott et al., 2000, p. 256)."

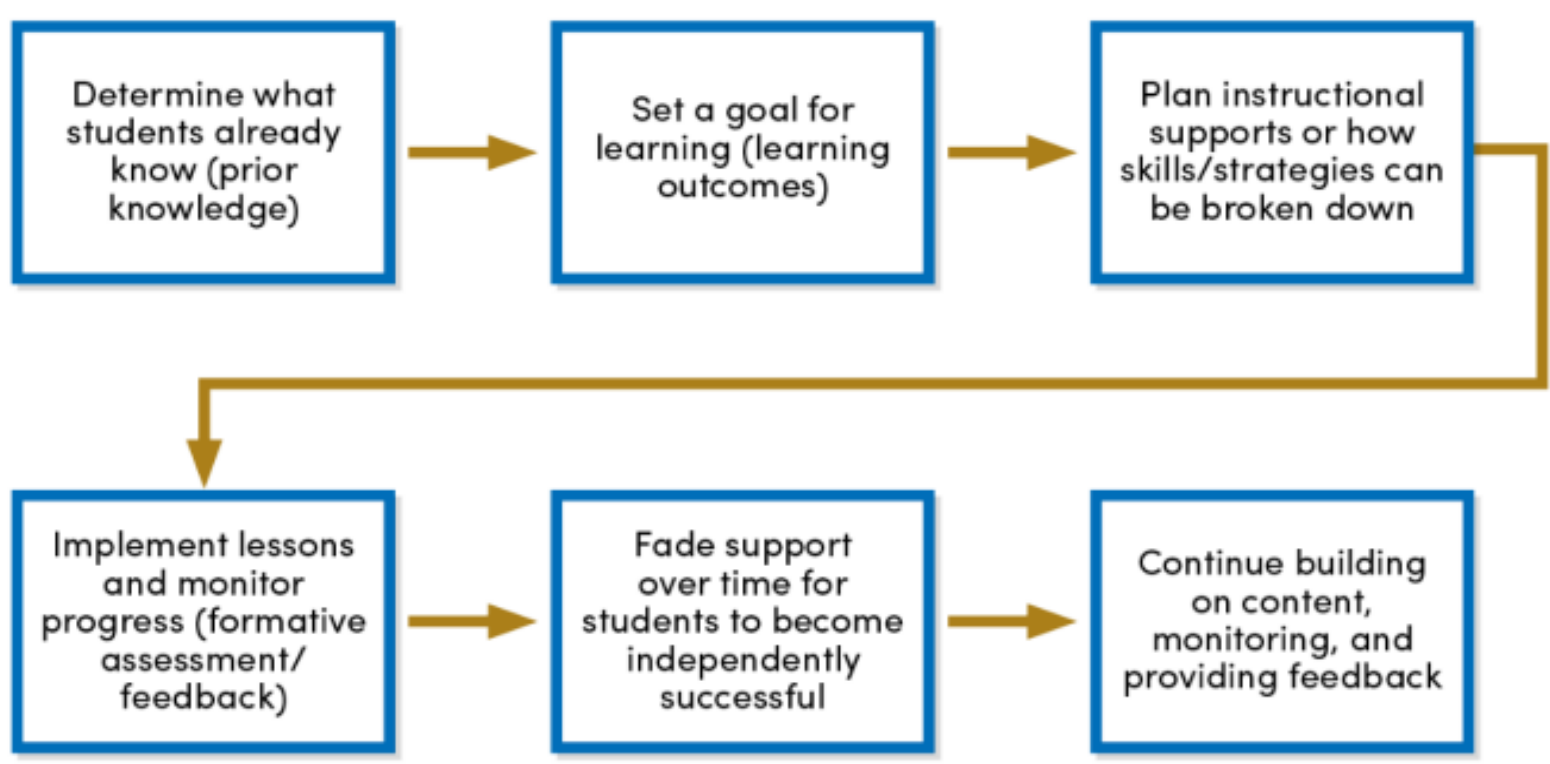
"Constructivism's central idea is that [...] learners build new knowledge upon the foundation of previous learning."

SOCIO-CULTURAL THEORY: Examines " the relationships between external and internal processes" in relation to social, societal, and cultural influences. It "focuses on the creation and usage of mediating tools that play a role in how humans think."

THE ZONE OF PROXIMAL DEVELOPMENT (ZPD):

"Is the distance between the actual developmental level as determined by independent problem solving and the level of potential as determined through problem solving under adult guidance or in collaboration with more capable peers." (Cole, 1962.)

A child's actual developmental level shows their level of mental development, i.e., the functions they have already developed and matured at that time. A child's ZPD establishes functions that are in the process of developing. This allows us to focus on what to help them mature next and predict the future process of their development.



Application and Approaches in Teaching - Scaffolding

"Instructional scaffolds are temporary support structures faculty put in place to assist students in accomplishing new tasks and concepts they could not typically achieve on their own. Once students are able to complete or master the task, the scaffolding is gradually removed or fades away—the responsibility of learning shifts from the instructor to the student."

The Northern Illinois University's 'Center for Innovative Teaching and Learning' says that scaffolding helps create a supportive learning environment. It helps the teacher become a mentor and facilitator of knowledge and learning, and the class becomes more student-centered and led. Teachers can use scaffolding one-on-one or with the whole class. Scaffolding is particularly important to use when one or more students are finding it hard to understand or progress in class.

Instructional scaffolding for demonstrating a task can be structured as so:

1. The teacher does it
2. The class does it
3. The group or pair does it
4. The individual does it

Teachers can also provide materials and resources to help students progress through these levels, such as cue cards, question stems, examples, mind maps, stories, charts, or diagrams.

Application and Approaches in Teaching - ZPD

"We operate best when faced with tasks that are just a little challenging to us but not so hard that they become overwhelming.

Vygotsky said the same is true for learning. He said we learn best when new material is in the [Zone of Proximal Development \(ZPD\)](#) - not too easy, and just challenging enough that, with a little help from a more learned individual, we can master the material and shift our Zone upward."

The main points of his theory were to

- Make new material challenging but not too difficult
- Ensure students receive some coaching assistance as they learn

East Tennessee State University suggests providing as many resources and support as possible so that students can access however much they need depending on their ZPD.

Some examples of supportive resources may include:

- Modelling or giving a demonstration to give the students an example of what to do.
- Video talk-through or demonstration. This may be particularly helpful to students who may have certain kinds of Special Education Needs like dyslexia or ADHD, or who just find it easier to listen or watch instructions rather than read off a page or slide.
- Checklists. This helps break down larger tasks into smaller, more manageable ones.
- Extra materials or resources for further research and learning. These may be links to content online or a list of books available from the school or library.

The diversity of ZPDs in the classroom can be used for everyone's benefit. This can be done through group or pair work, teaching, and learning, or tutoring. Learners with higher ZPDs can help create scaffolding for those with lower ones. Giving more advanced students extra challenges may also be needed to keep them engaged and enhance their learning experience.

When moving on to new material, it is important to check students understand what was taught in previous lessons. Quizzes, or asking students to make a summary of or devise a question related to the previous learning can help confirm their understanding.

PERSONAL PHILOSOPHY OF EDUCATION:

I think that no single theory or principle of learning and knowledge acquisition can accurately cover and explain all developmental variations. A combination of these studies and techniques can, however, be effective to use in most classroom settings.

I have a particular interest in constructivist and socio-cultural beliefs. I think these theories are of particular use in settings where the arts or visual arts or creative studies and learning are taking place.

I think that good a teacher should act mainly as a facilitator and mentor for students learning. I think this method can help learners build passion and resilience for self-directed learning, which should prove helpful to them, as learning is a life-long process.

Student-centered learning and questioning to encourage involvement and the development of learners' own understandings of culture and society can be particularly important for having contextual references with which to form their own creative concepts and ideas.



	Piaget	Vygotsky
Sociocultural context	Little emphasis	Strong emphasis
Constructivism	Cognitive constructivist	Social constructivist
Stages	Strong emphasis on stages of development	No general stages of development proposed
Key processes in development & learning	Equilibration; schema; adaptation; assimilation; accommodation	Zone of proximal development; scaffolding; language/dialogue; tools of the culture
Role of language	Minimal – Language provides labels for children's experiences (egocentric speech)	Major – Language plays a powerful role in shaping thought
Teaching implications	Support children to explore their world and discover knowledge	Establish opportunities for children to learn with the teacher and more skilled peers

References / Bibliography

1. McLeod, S. (2019). 'Constructivism as a theory for teaching and learning,' *Simply Psychology organisation*. Available at: <https://www.simplypsychology.org/constructivism.html> [Accessed: 9/11/2022]
2. n.a. (2018). 'Sociocultural Theory,' *Communication Theory organisation*, in Cultural Communication, Psychology, Behavioural, and Social Science. Available at: <https://www.communicationtheory.org/sociocultural-theory/> [Accessed: 9/11/2022]
3. Kurt, S, PhD. (2020). 'Lev Vygotsky – Sociocultural Theory of Cognitive Development,' *Educational Technology, Frameworks and Theories*. Available at: <https://educationaltechnology.net/lev-vygotsky-sociocultural-theory-of-cognitive-development/> [Accessed: 9/11/2022]
4. McLeod, S. (2022). 'Vygotsky's Sociocultural Theory of Cognitive Development,' *Simply Psychology organisation*. Available at: <https://www.simplypsychology.org/vygotsky.html#:~:text=Vygotsky's%20sociocultural%20theory%20views%20human,more%20knowledgeable%20members%20of%20society> [Accessed: 9/11/2022]
5. Anders, M and Galant, M. (n.d.). 'Zone of Proximal Development,' *Cortland Education*. Available at: <https://web.cortland.edu/andersmd/VYG/ZPD.HTML> [Accessed: 9/11/2022]
6. East Tennessee State University. (n.d.). 'Vygotsky's Theory, What Can a Russian Child Development Theorist Tell Us About Teaching College Students?', *East Tennessee State University, Center for Teaching Excellence*. Available at: https://www.etsu.edu/teaching/resources/more_resources/vygotsky.php [Accessed: 9/11/2022]
7. HHuertaOTR, East Tennessee State University link. (2010). *Zone of Proximal Development*. YouTube [Online Video]. Available from: <https://www.youtube.com/watch?v=rX8lRn1u5IE> [Accessed: 9/11/2022]
8. Allman, B. (2018). 'Socioculturalism,' In R. Kimmons, *The Students' Guide to Learning Design and Research*. EdTech Books. Available at: <https://edtechbooks.org/studentguide/socioculturalism> [Accessed: 9/11/2022]
9. Northern Illinois University Center for Innovative Teaching and Learning. (2012). Instructional scaffolding. In *Instructional guide for university faculty and teaching assistants*. Available at: <https://www.niu.edu/citi/resources/guides/instructional-guide/instructional-scaffolding-to-improve-learning.shtml> [Accessed: 9/11/2022]
10. University of Buffalo. (2022). 'Scaffolding Content,' *University of Buffalo, Curriculum, Assessment and Teaching Transformation*. Available at: <https://www.buffalo.edu/catt/develop/build/scaffolding.html> [Accessed: 9/11/2022]