# Constructivism

## Overview

### What it is

Constructivism is the learning theory that each student actively constructs their own learning and knowledge upon the foundation of their existing knowledge and experiences. [1]

This theory has three main variations, developed by psychologists Jean-Jacques **Piaget**, Lev **Vygotsky**, and Jerome **Bruner**.

### Who came up with it

Piaget developed cognitive Constructivism (~1950) based on criticism of instructor-led education as passive and intangible to children. He believed that **students must be allowed to discover concepts and construct knowledge on their own**. [5]

Vygotsky disagreed, he believed that children could not reach higher cognitive levels without guidance and mentorship from more learned individuals. He called this **social Constructivism** (~1962). He also proposed the concept of **The Zone of Proximal Development** (1978), where students are given appropriately challenging tasks that push a learner past the edge of their existing knowledge without becoming frustrated. [3]

Bruner agreed with Vygotsky, but took it one step further with **scaffolding theory** (1976), which suggests that students need instructors to reduce the choices and possibilities a child faces as they construct new skills or knowledge, where those "scaffolds" are gradually removed as learning progresses. The biggest implication of this theory is that even a very young child could learn any material if it was appropriately organized. [4]

## Constructivism in Modern Education

### Strengths

* Students have personal agency in their learning
* Material can be adapted to student interests
* Encourages development of critical thinking, meta-cognition, & independent research
* Fosters social skills
* Promotes diverse viewpoints

### Weaknesses

* Low structure, which is not suitable to all students.
* Makes grading more difficult
* Struggling students can fall behind
* Misconceptions can be difficult to identify & correct

### Implications for Instructional Design

Constructivism lends itself very well to early childhood education, where patterns of learning can be established and social skills can be practiced. The challenge of non-standard curriculum is less impactful. There is also less opportunity for uneven foundational knowledge or misconceptions to have accumulated.

Constructivism is not immediately suitable to eLearning design, since there is little room for individual customization in an asynchronous module. There is room for constructivism in eLearning if it is built with a few self-directed learning paths. There are also merits to the ability of eLearnings assessments to help students identify misconceptions before moving on.

Social constructivism is frequently incorporated in higher education, particularly with group work. Research projects and creative projects are also frequently used in college courses, which give students freedom to explore the course material within a context that they find personally interesting.

## References

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