

The Definition of Constructivism

Constructivism is an approach to teaching based on research about how people learn. Many researchers say that each individual constructs knowledge rather than receiving it from others.

Although people disagree about how to achieve constructive learning, constructive teaching is based on the belief that students learn best when they gain knowledge through exploration and active learning. Hands-on materials are used instead of textbooks, and students are encouraged to think and explain their reasoning instead of memorizing and reciting facts. Education is centered on themes and concepts and the connections between them, rather than isolated information.

Source: From *The Language of Learning: A Guide to Education Terms*, by J. L. McBrien and R. S. Brandt, 1997, Alexandria, VA: Association for Supervision and Curriculum Development.

What do constructivist educators believe?

Narrator: Constructivist educators believe that every day we engage in searches for meaning. We continually challenge our current understandings as we consider new information. We then decide whether we want to hold on to previously held beliefs—or whether we want to build new understandings. It's through this process that we learn, and schools can be structured to encourage this process.

Jacqueline Grennon Brooks: What we have to do is create settings in which we are trying to help kids build skills and construct knowledge. In a constructivist classroom, the teacher and students are co-investigating, searching for meaning about the way the world works.

What does it mean to seek and value student perspectives?

Narrator: When students' perspectives are sought and valued, teachers create opportunities to enrich content. It's how these viewpoints are harnessed that distinguish constructivist learning settings.

Jacqueline Grennon Brooks: We know that people learn best when their points of view are sought and valued. And we need to make the distinction between those two endeavors of seeking and valuing, because they really are different. Often times we see people—teachers in particular—seeking students' points of view but not valuing their answer enough to guide curriculum. We need to use students' points of view as our starting points as educators.

Narrator: In this laboratory, students discover what action is needed to turn milk and cream into butter. These students are encouraged to investigate this phenomenon, and they help determine the direction of their exploration.

What is the teacher's role in the constructivist classroom?

Narrator: A constructivist approach requires more of students—and teachers as well. In addition to providing information, teachers must probe students' understandings, paying close attention to what they say and think and valuing their points of view. Teachers circulate more, talk more with students, asking them probing questions, pressing them to explain their thinking, encouraging them to draw conclusions.

Jacqueline Grennon Brooks: The teacher has a very proactive role. The teacher has a very intellectually rigorous role. The teacher has the role of being an active listener and a coordinator and a manager and a facilitator all at the same time. Because, while listening to what people are telling him or her, the teacher is formulating a plan of action.

Describe assessment in the constructivist classroom.

Jacqueline Grennon Brooks: Assessment and teaching are inextricably interwoven in a classroom based in constructivist principles. We are trying to assess so we'll know where to go in the teaching process.

Narrator: This student is creating a recipe for soda. As he experiments with the quantities of various ingredients, he is also learning why it's important to document his methods and procedures.

Jacqueline Grennon Brooks: The notion of nonjudgmental feedback is so critical to the setting in which the learning must occur. To try to take that right and wrong out and to try to feed back to the learner some information that may either guide, that may focus, or that may expand their present point of view without trying to rate their present point of view, is looking at the child through a different lens than we may have been looking at that child previously.

What is the student's role in the constructivist classroom?

Dorothea Heath, teacher: I could easily hand them a sheet of paper and say, "Here—this is what I want you to do." But why stifle them from the beginning? When it is questions that they have thought of, and they have written, they take ownership of their own learning.

Lisa Wing, teacher: We believe that students, in order to be effective learners, need to learn for purposes that are their own and intentions that are their own. Because the kids generate their own questions, they in many ways determine the course of what their learning will be, with guidance from the teacher, who's continually pushing them to make much more sophisticated and more reflective and more thoughtful questions.

Narrator: In a constructivist approach, students learn through direct experiences as well as through books and lectures. Here, students spend an afternoon studying Rochester's many bridges firsthand. They also talk with an expert, Bill Davis, a retired engineer who volunteers his time to the class.

Lisa Wing: This particular program encourages children to see themselves as seekers of knowledge rather than just seeing themselves as recipients of knowledge. So, we're trying to give children the tools to seek information in many different ways from many different people in many different places rather than just seeing themselves as someone who sits in a desk, does the assignments, and listens to the teacher. And those are two very different ways of looking at what a learner is.

Wouldn't it be easier if someone just gave you the answers?

Student 1: Yes, but. . . There wouldn't be any point. We wouldn't learn anything from that. Through the experimentation, we not only learn different ways of finding the right answer, we also learn more about chemistry in general.

Student 2: I have labs in almost all of my classes. And so I've had the opportunity to show what I've learned instead of having some stuff said to you [that] may have gone over your head—you don't really know. This way, [through hands-on learning], it shows me what I really do know. It shows me what I know and what I can do with it.

Student 3: People don't tell you what to do; this gives you more of an experience, and if you get it right, it gives you more of a feeling of accomplishment.

Student 4: Whenever you go into any problem, whoever you're working with brings their entire past into the situation. So, because we all have different backgrounds, we each bring little shreds of insight that are unique to the problem—and that really helps out a lot.

What does it mean to empower students and respect their ideas?

David Seerman, teacher: My job is to try to create an environment in which the students' thoughts can be drawn out, thoughts that can begin in confusion and end in understanding. And, to do that, you have to open up lines of inquiry through dialogue, and you have to remain very, very objective throughout the whole process. The students have to be drawn out, and they have to fashion and develop their own thoughts and ideas themselves.

Narrator: By exploring the primary concept through a class discussion, students understand the moral dilemmas faced by the characters in the books they've read. Students then communicate that understanding through projects.

David Seerman: Students can't get fully immersed unless they feel there's some control, unless they feel they won't get nailed for saying something right or saying something wrong—and a teacher has to give up power in some regard.

Schooling for Life: Reclaiming the Essence of Learning

by Jacqueline Grennon Brooks