Maria Montessori and Jean Piaget as examples of educator/thinkers who focused on learners and the ways they construct knowledge.

Coming, then, to education from the postmodern view is the revival or resurgence of “constructivism.” Constructivism is a ubiquitous term, with definitions varying from Catherine Twomey Fosnot’s “post-structuralist psychological theory that construes learning as an interpretive, recursive, building process by active learners interacting with the physical and social world,”9 to James G. Henderson, who says, “Constructivist teaching can be defined as any deliberate, thoughtful, 

I keep a plant on my desk to remind myself that we do not make plants grow by pasting on leaves but by creating the best conditions for plants to grow.

educational activity that is designed to facilitate students’ active understanding.”9 Constructivist educators believe that “the act of teaching” cannot be distinguished from “the act of learning” and that those of us who claim to teach need to think again about what it means for our students to learn.

I came across in a neglected file the transcript from a 1984 address by Constance Kamii to an Association of Early Childhood Educators Conference, where she described constructivist education in this way:

The constructivist theory . . . is a biological model that envisions learning like the growth of a plant. Plants grow not by addition of new parts from the outside but by differentiation and coordination of new parts from the inside. For example, the leaf of a tree grows by differentiation out of the branch, and not by being pasted from the outside. Nutrients or inputs from the environment are, of course, necessary, but these work indirectly through the soil and the plant, and we cannot grow leaves or flowers by putting fertilizers directly on the plant from the outside. Knowledge is constructed as an interrelated whole, like the development of a plant or an embryo, rather than as a collection of bits added from the outside.10

I began to keep a plant on my desk to remind myself that we do not make plants grow by pasting on leaves but by creating the very best conditions for plants to grow. Although Kamii’s lecture was to early childhood educators, and although much work on education reform is centered on elementary and secondary education, I have begun to believe that some of my concerns about my college classroom can also be addressed by her message. She ended by saying:

What education needs now is neither more money nor technology but serious
thinking about how to go forward, rather than back to what did not work before. The research findings are there, lying on library shelves. What we need now is the willingness to study them and to reconceptualize in a fundamental way what we are doing in the name of education.”

I suggest that constructivist teaching with its goal of evoking constructive activity of learners and teacher activity designed to promote active understanding can help us with the “whatever” generation.

Although, as Fosnot states, “Constructivism is a theory about learning, not a description of teaching,” some general principles that apply to teaching include the need for students to form their own questions, to challenge contradictions, to make errors, to reflect and to discuss. Jacqueline Grennon Brooks and Martin G. Brooks identify principles of constructivism which include proposing problems of emerging relevance to students, challenging suppositions, teaching primary concepts rather than discrete bits of information, and valuing students’ points of view. They describe constructivist teachers as those who attempt to ascertain students’ present understanding before attempting to present more information, who encourage student autonomy and initiative, and who develop student inquiry through dialogue.

George W. Gagnon, Jr. and Michelle Collay suggest ways to design effective
classroom interactions, including planning for ways to group students, to build bridges in order to understand what prior knowledge students have about a topic, and to plan questions which will create opportunities for student learning.

But reforming our understandings of teaching and learning is an unsettling endeavor. We have legitimate concerns about rigor and the need to preserve the essence of our disciplines. Stanley Aronowitz and Henry Giroux warn about a kind of “liberal-progressive tradition in which teaching is reduced to getting students merely to express or assess their own experiences” and in which teaching “collapses into a banal notion of facilitation.”

Constructivist theory does not support “dumbing down” of material. The most difficult part of constructivist teaching involves, not the shifting of material or content, but the shift of responsibility for learning to learners themselves.

The following examples from classroom practice may help to clarify.

Jessica Kulynych proposes “a postmodern pedagogy designed to reinvigorate the call for democratic education.” She describes a team-taught interdisciplinary course in politics and literature where professors sought to “teach students to teach themselves” by breaking down barriers of discipline and authority. She describes a great deal of discomfort among students and within herself as the class struggled with new forms of looking at discipline, authority, and learning. By the end of the course, however, students began to recognize the limits of the professors’ authority, and their comments in journals and discussions evidenced a move toward ownership and active participation in their own learning. Her conclusion: “That transition, or crossing, from student to citizen, is exactly what a democratic education ought to inspire.”

Judith Baker teaches three different “Englishes” as a way to help students make connections. In her class, students identify the language they speak at home and with friends, give it a name, and identify the specific features of the language that are different from formal English. Students note, label and discuss the patterns of speech, rules of grammar, tonal features and emotional characteristics of the language. They move from this “home” English to “formal” or academic English, and
then to “professional” English, identifying particularities of the different ways of using language. She notes:

As young people become less fearful of being manipulated or disrespected, I think they can become engaged in the study of their own language competence. They can weigh their own opinions, choose how they want to speak and write in each new setting. In this atmosphere, the mechanics and usage and vocabulary of formal English no longer threaten to demean them. The study of grammar is very much a personal issue, a racial and class issue, a political issue—and doing it backward like this, motivation first, rules last, examining the dialects before the formal

The study of grammar is very much a personal issue, a racial and class issue, a political issue.

language is something with which my students will cooperate. Further, for me the teacher, the roles of “student as expert” and “student as researcher” come a little more into focus each time we do projects like this, and as I tend to trust my students more, they in turn feel more respected and comfortable in class.¹⁹

This approach, I believe, takes seriously students’ present condition, not expecting less of students because they are multicultural or postmodern or even under-prepared, but following a constructivist notion that instruction needs to begin with prior knowledge.

Frustrated by the lack of interest and depth during a discussion of positions taken on obscenity laws, a philosophy professor from a Midwestern Catholic women’s college arranged for his class to visit a local pornography shop. When the students returned, the discussion and debate about obscenity laws was conducted on an entirely different level. Students responded passionately. The experience was potentially life-changing for students, not because they now had a better understanding of obscenity laws, but because they realized that the parameters of debate and positions taken on any issue are significantly influenced by the knowledge and experience individuals bring to the table.²⁰

An activity in a constructivist workshop asks students to use an overhead projector to make a silhouette of a group member on construction paper and then, using materials provided—string, graph paper, projector—reproduce one that is “one-half the original size they traced.”²¹ The task is ambiguous, but it engages learners. They try, test, fail. They argue about the difference between one-half the
area and one-half the height. They apply formulas. The activity resists the modern need to state objectives clearly and precisely. The ambiguity of the assignment forces students to re-form the question for themselves, defend their interpretation, and develop a clear understanding of the answer that they find.

Dewey Dykstra, Jr. describes a college physics class on force and constant velocity where students are asked to diagram, explain, graph, and make predictions about the movement of a cart across a horizontal table in the physics classroom. The students are guided by the professor’s questions as they predict, test, and

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**Ask students what methods of engaged learning are being employed in their class and most may well scoff at the suggestion that they are being “engaged.”**

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eventually prove and understand the concepts they are studying. He works very hard not to be the “one with the answers.” He sums up his experience:

The result of acting on the decision to throw tradition to the wind and do what made more sense has been seven years of the most exciting, rewarding, and intellectually stimulating experiences in teaching and learning that I have ever experienced. It has changed my view of what constitutes understanding of topics in my field and how people come to understand them. I have a greater respect for the intellect that is in all of us, and I have been rewarded by the response of a number of students to these insights about themselves.

Of course, there are still those students of college age who just want the answers and are quite sorry that I have decided to do things differently. But the challenge of understanding these students well enough to get inside and facilitate disequilibrium in them is also exciting. I am convinced that whether they realize it or not, many of the students have looked deeper into their own ideas and into the phenomena than their peers who have not had a similar course experience. When you have invented an idea for yourself, it is much more a part of you than when you memorize a description from someone else.

So what is required of us as modern scholars teaching in a postmodern milieu? No more and no less than the very best methods of teaching that have always existed, used carefully and well. A well-conceived lab, a probing discussion, a great lecture can be extremely valuable to student learning. But stroll across a college campus and ask students what methods of engaged learning are being employed in their class and most may well scoff at the suggestion that they are being “engaged.”
Is constructivist education simply a pandering to the whims of our students? I think the preceding examples help to show that it is not. But taking learning seriously is not for the fainthearted. We need to be well informed in our content and facile with a number of methods of instruction. We must give up some of the power and authority we find comfortable in the classroom. We are forced not only to deal with ambiguity, but, on occasion, to embrace it. The reward is a connection with our students and with the content of our disciplines that is increasingly rare in our disconnected world.

As I now begin the fourth decade of my teaching career, I no longer despair about my role in the university classroom.

In the struggle to find meaning in the move from modern to postmodern thought, perhaps most helpful to me was the notion of “border pedagogy” from Aronowitz and Giroux. “Within this discourse, students must engage knowledge as border-crossers, as people moving in and out of borders constructed around coordinates of difference and power.” Although the theory they advance is much more complex than can be described here, they promote a pedagogy that seems compatible with constructivist theory:

In a world whose boundaries have become chipped and porous, new challenges present themselves not only to educators but for all those for whom contingency and loss of certainty do not mean the inevitable triumph of nihilism and despair but rather a state of possibility in which destiny and hope can be snatched from the weakening grasp of modernity.

As I now begin the fourth decade of my teaching career, I no longer despair about my role in the university classroom. I am a border-crosser. So are my students. All of us carry our own baggage. At their worst, my students are parochial, dependent, fatalistic, and wary of responsibility. At their best, they are multicultural, multilingual, and open to new perspectives; they come well educated and highly sophisticated. Often they navigate the borders and the crossing with more ease and energy than I can. But I believe that they need me. I know more. In many cases it will be my efforts that bring them to understand the relevance of the discipline they study. It will be my questions that bring them to a new or stronger construction of knowledge, and, yes, my lectures that provide a bridge from what they know to what they must learn. It is a daunting task, but I have found that when my focus stays on what and how students might learn instead of what and how I must teach, the distance between us narrows, and I become more at ease with each crossing.
ENDNOTES

1 Bob Pittman, former head of MTV, “What we’ve introduced with MTV is nonnarrative form. ... We rely on mood and emotion. We make you feel a certain way as opposed to you walking away with any particular knowledge.” quoted in Middleton, J. Richard and Brian J. Walsh. 1995. Truth is Stranger than It Used to Be. (Downers Grove, Ill.: Intervarsity Press, 1995), 55.


6 Elkind, 243.

7 Elkind, 245.


11 Kamii.

12 Fosnot, 29.


17 Kuykendall, 149.


19 Baker, 59.

20 Personal conversation.


23 Dykstra, 202.

24 Aronowitz and Giroux, 119.

25 Aronowitz and Giroux, 133.
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