

Theory and Practice: Teaching in the Real World

By Kathleen Stassen Berger

“**T**heory and practice,” “research and application,” “ideal and real,” “thought and action”... every scholar-teacher knows that neither half is viable without the other. Theories die if they remain disconnected from practice; practice uninspired by theory is lifeless. In fact, without some theoretical perspective, we instructors would not know how to choose among the many possibilities for each teachable moment and would be stuck repeating what our own instructors had done.

My first teaching assignment was to instruct seventh-grade boys in Harlem. I was warned about discipline and record-keeping, informed that some of my students would never learn, and not told—and, presumably, not expected—to make learning happen.

I came equipped with a theory. In graduate school I’d learned behaviorism—now called learning theory—with laws said to apply equally to newborns, children, and adults of any age. Behaviorism held that any living creature can learn

almost anything, if teaching takes place step by step, with individualized reinforcements on a careful timetable.

Appropriate behavior must be operationally defined and immediately rewarded, the theory went, personal contact was crucial, appropriate schedules and repetitions were critical. The good teacher analyzed data, organized associations and consequences, and delivered results. The theory meant that I, the teacher, should be the authority who structured the task, meted out the reinforcement, and administered the punishment.

As a young white woman in an all-boys school of mostly minority students, I wore high heels and an artificial bun to give me the appearance of maturity. I never corrected the rumor that I had a black belt in karate.

Behaviorism mandated that demands for appropriate behavior be quite specific, operationally defined, and enforceable. Responding to this mandate, I told my students to sit with their butts on their

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chairs, their feet on the floor, their notebooks open on their desks.

I didn't require absolute quiet, nor even that each boy have a sharpened pencil—I brought extras for them to “hold” for the day. Despite school policy, I never announced “no weapons in school” because I anticipated losing a confrontation if I searched their pockets. But I knew I could not allow fighting in my class, and that the sight of a weapon was a conditioned stimulus for violence. So I told them that if I saw a knife or a gun, I would have to take it.

At that time, the presence of weapons in New York City's schools was seen as a serious problem, though not perhaps as serious as it is now. As a young teacher, I had little practical experience from which to evaluate this perception or the stereotypes about my students.

Another lesson from behaviorism was “time on task,” the idea that learning correlates directly with the amount of time a student spends doing a particular activity.

Consequently, the class didn't stop if one student misbehaved. Each student read at his own pace rather than turn the pages in unison. Slow learners stayed after school rather than taking everyone else's time with correction. My class never lined up for lunch or dismissal.

Time on task led me to assign

more writing than talking, copying from the board, answering simple comprehension questions about a short passage, labeling and coloring maps.

Perhaps my most important application of behaviorism was realizing that reward is more potent, and less problematic, than punishment. Other teachers did not know this. In my first week, I walked quickly over to the desk of one boy who didn't have his notebook out. Seeing me approach, he put his arm defensively over his eyes to deflect a blow.

One day I did see a knife, and while there had been no actual threat of violence, I could not ignore it because several students saw me look at it. I walked over and put out my hand for the knife. For a moment, the boy hesitated. I had to follow through—the theory requires it.

“Give me the knife,” I said.

Silence in the room. Then, the boy placed the knife in my palm. The class chorused “Ooooooh,” and I was surprised too.

“Miss, what are you going to do with it? Are you going to tell the principal?”

Truth is, I hadn't thought that far ahead. Behaviorism counseled me to define operationally, reinforce consistently, and correct the rare instances when the routines

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are broken. I did this, and my students responded just as behaviorism would predict. Now I had to figure out what to do next.

I remembered reward the good, don't draw attention to the bad. I would reward compliance and forget the knife. I slipped it into my bag and said: "I'll give it back after school. Don't make me take it again." And he didn't.

I rewarded good behavior in every way I could. I wrote laudatory comments, drew smiling faces, complemented their eyes or shoes or hats.

I had been warned by the school administration not to visit my students at home. We are not responsible for your safety after hours, I was told. If you have any problems, notify the guidance counselor, who will summon the parents.

But behaviorism taught me that distance was ineffective and punishment came too late. I had to "catch them being good," and tell their parents about it. Accordingly, one evening, I visited the homes of students who were doing well, who were improving, or who seemed to be trying.

It worked. I rode on rickety elevators and climbed dimly lit stairs wearing my teacher shoes and hairpiece, my rollbook visibly clutched to my chest.

Adults left me alone or gave me directions, children raced ahead to tell my students, "Your teacher is

coming." Parents opened their doors and hearts to me. The next day my students seemed to try harder, several asking "If I am good, will you come to my house?"

While behaviorism worked for me in this instance, it didn't provide a framework to challenge the administrators' fatalistic approach to our students' home lives—giving up, as it were, rather than working with parents.

The month of June was a particular challenge for public schools in Harlem. No trips could be scheduled, the textbooks were collected, and final grades were in—so official paperwork could be checked and filed by June 26, the last day of school. Some teachers told their students to be absent, some told them to bring cards and board games. But I wanted more "time on task," and decided to have current events each day, based on *The New York Daily News*.

How could I get my students to cooperate? Reward good behavior, I remembered. I would pay the students in my homeroom a nickle for showing up on time, a nickle for good conduct, a nickle for work done in the morning, and another nickle in the afternoon. I put a big chart on the wall, with each boy's name and date, promising the payment on June 26.

Did it work? Not really. My stu-

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dents never became unmanageable, but the system had none of the precision or effectiveness that behavior science predicts. In hindsight, I see errors in application: the wrong reinforcement; an unfamiliar system; my targeted behaviors were not operationally defined. We survived June without serious incident, and it cost me less than \$50, far less than I hoped.

I never redid my behaviorist experiment. I became pregnant that July, and the Board of Education forbade pregnant teachers in the classroom. By the time women's liberation changed that, I had earned my Ph.D. and began teaching in graduate school as well as at a community college, and a new theory was ascendant, Piaget's cognitive theory.

Essentially, Piaget theorized that each person—baby to adult—has an active inner drive for knowledge. Maturation, new experiences, and discordant information make old schemas fail; disequilibrium forces learners to move forward. Later cognitive theorists added that teachers should provide educational surroundings that allow discovery to occur.

In my college teaching, I applied cognitive theory first by criticizing some of my behavioral approaches. I decided I had been too dictatorial. In programming my

students' learning, bit by bit, I had robbed them of their own initiative, their own discovery, and their own ability to develop connections to construct their knowledge.

What did cognitive theory mean to me in practice? I asked my students to call me by my first name since we were all learners together. I assigned weekly writing assignments, "idea papers" in which the students explained their own thoughts about each topic.

Since the learning was in the activity, not the grade, I didn't have to read and correct all the 1,440 papers I collected each semester; I merely had to record them and mark them "A" for acceptable.

In class, I let my intellect soar, explaining big ideas, overarching controversies, connections with other disciplines, and then told the students to read the text to fill in the details. My favorite students were not the well-behaved and obedient ones as before but the challenging and argumentative ones since they seemed to be active learners.

I knew the students had to teach themselves, as cognitive theory explains, so I rearranged the class schedules and seating to form groups, to do role plays or prepare for debates.

Individual students were assigned case studies that included their own analyses. Then, they had to report orally to the class, who

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graded the depth and insight of their classmates' presentations, writing comments as well.

I collected the grades, cut off the graders' names, and returned them to the each student with my comments and the overall average grade. I let myself be the intellectual, the one who asked the hard question and wanted students to respond with hard questions of their own.

Did it work? It certainly caught on. I see many examples of instruction based on cognitive theory in college classrooms today. Low-stakes writing, student-centered instruction, cooperative learning, the case study approach—all stem from cognitive theory.

In my experience, cognitive teaching is a joy, because my own intellect can soar and because students are ultimately responsible for their own learning. Some of my students did brilliantly.

One complained that my comments on her paper were superficial; she wanted me to answer the questions she posed. We began an intellectual dialogue, and she has become a published novelist and scriptwriter.

Another student who I let instruct a class earned his Ph.D. and is now a colleague. Several others are moving forward with stunning success, and they still credit me for the big ideas and intellectu-

al excitement they found in my class years ago.

But too many other students were lost or disaffected. Even my superstars never used my first name until years later when I insisted. I became aware of cheating, sometimes blatant, with miscreants saying they thought I didn't care how much they really knew.

Mistakes on papers were repeated, not corrected. And, as those of my colleague who had been distant sages retired, my new colleagues were more in tune with my students than I was. I began to notice that my students' scores on our departmental final exam were no longer above the mean.

My students did not even surpass the students of my former student, even though my cognitive grasp was certainly more mature and experienced than his.

My disquiet was already surfacing when I began teaching a college course in Sing Sing, one night a week, to 28 felons.

I arrived with my practiced cognitive techniques. But it was soon clear that my assumptions and habits—my cognitive schemas as it were—were too narrow and restrictive. There was too much they didn't know and their experiences would never teach them, and too much I didn't know about them that I needed to know in order to

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help them learn. I had to leave the sidelines.

I began learning their names the first night, as I always do to show I respect the students' potential—evidence of my cognitive approach. The students gave not just their first names but many last names without the "Mr."—Carrouters, Rogak, Patterson, Perez.

Their first names and nicknames also had a discordant echo: "Emmanuel means God is with you." He sits in the back row and can see the old electric chair building beyond the barbed wire outside the window. "Bernard" stares at me with burning eyes and a flame-scarred face under the hood of his red sweatshirt. "Country" is far from his South Carolina country.

One of my 28 students wanted to be addressed formally, as "mister," which my campus students never request.

"Is that how you want me to call you, Mr. Carroll?"

"Yes, but it doesn't really matter. No teacher ever remembers my name."

I never forgot him. I never forgot anyone in the entire class, for time after time my cognitive maps did not fit the lay of this new place.

For example, when I describe the power of similarity and proximity in friendship formation, I had

always asked my college students to list their friends in their notebooks, and I paused as each wrote down at least five names. This is standard cognitive theory: They "discover" how many of the close friends once lived nearby.

In prison, the same request met inaction and puzzled stares.

"We don't have friends," one said with uneasy laughter.

"Only acquaintances," another added. "It's dangerous to have friends."

"The only friend I have is Mom, but I don't want to put her down."

The class laughed genuinely. I laughed, too, relaxed, wiser.

I began to teach differently, as I saw how desperate the lives of the prisoners were and how eager they were to learn. I knew I couldn't begin unless I listened carefully to their words and experiences, read the emotions behind the phrase, the gesture, the expression, the joke. My learning continued.

Fortunately, for me and thousands of other teachers who see the limits of cognitive theory when we must educate the diverse students in our classrooms, another theory has emerged, the sociocultural theory of Lev Vygotsky.

Vygotsky, who died in Moscow in 1934, was unknown among U.S. educators until recently. Political explanations for this gap seem logical: Vygotsky's ideas were

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repressed by Stalin in the 1940s, and everything Russian was suspect by Westerners until the 1980s.

But there is another, contextual, reason for his current popularity. Vygotsky was an outsider in his day. This made him particularly attuned to how those outside the traditional system learn.

I didn't know I needed Vygotsky until I had students who did not respond as I expected. Today, many of my students are outsiders, not raised in families where discovery learning comes naturally. Moreover, much of the knowledge these students must master is not within their own natural maturation but within a somewhat alien culture, where we use tools of knowledge such as the computer, the scientific method, standard English or even the college classroom.

Vygotsky stresses that the teacher's job is to help students acquire the tools needed to cope with their social setting, enabling them to create a new culture of their own. The political term for this might be helping students find their own voices, or empowerment. The scientist's term might be ecological validity, and the educator might call it multicultural respect, or identification with the students.

I realized I'd reached this point of connection mid-semester at Sing Sing, when, in the anteroom before

we were frisked and checked, I read on the blackboard "semi-normal operations." The staff seemed nervous. I wondered if a riot was possible.

When a correction officer (CO, a/k/a guard) finally escorted the instructors to the prison classrooms, I asked what semi-normal meant.

"Nothing," he answered.

"Nothing?"

"Trouble in A block. Shouldn't affect you."

I was miffed, so I said: "I'll find out from my students."

He pursed his lips as if to say more, frowned, and advised, "Be sure to get both sides."

Both sides? What sides? Whites and minorities? Blacks and Hispanics? Christians and Muslims? None of this made sense. Aha, inmates and COs. And this is what my students confirmed. I suddenly realized that I trusted my students. If a riot broke out, I knew who would protect me. Not the men with badges.

Probably the best known tenet of Vygotsky's theory is that learning occurs when teachers and students interact within the Zone of Proximal Development, that scintillating, pulsating arena where students venture from past knowledge into the new skills that teachers help them grasp.

Learning is not simply intellectual, a lifeless idea put into the sky for

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student to pick if they can reach, but emotional and cultural, alive with newly created and shared meanings. Teachers, no longer sages nor guides, are partners.

Indeed, teachers must be the “spark in the heart,” the electric current that ignites the neurons, ever ready to rearrange conditions in that zone so that students will finally understand what they did not. Understanding begins in the teacher/student exchange, a social event, but then becomes practiced and internalized so that the learner uses it independently.

I search for new ways to engage each student in the learning process, because I now believe, with Vygotsky, that engagement is a prerequisite for learning.

One example is when I teach changes in the sexual reproductive system over the decades of adulthood. I ask my students to write, anonymously on 3-by-5 cards, their sex and how they would feel if their sexual organs were healthy and could still eliminate wastes but could no longer function sexually or reproductively.

I read the responses outloud, about 30 answers overall. Here are four typical ones.

Male: I would most likely be greatly depressed. My manhood would be crushed.

Male: My sexual organs are monumentally important to me. Without them I wouldn't be able to reproduce or satisfy my sexual needs that come along more often than I can remember, or those of my partner for that matter. If they didn't function anymore I would not hesitate to put a bullet through my skull.

Female: To me, I wouldn't care. I don't need actual physical intercourse to feel intimacy. I do fine without it.

Female: If my sexual organs stopped functioning in a reproductive way I will be happy because I am having a child now and I know how hard it is to raise a child. After this one, I don't think I want another one.

As students hear their own response and those of their classmates, they laugh and comment with notable engagement.

The male/female differences are dramatic, the ageist assumptions are apparent. This becomes the spark I use to review the specific changes that happen over adulthood, allowing me to cite research that most older people are quite happy with their sex lives—even when reproduction is impossible and sexual intercourse is infrequent.

If I just let the students discuss

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in groups, they would not spontaneously figure out what older adults really think; if I just told them the research without letting them imagine themselves without functioning sexual organs, they would not care.

This exercise, which I have now done several times with my adulthood and aging class, is a direct application of Vygotsky's theory: It ignites the spark in the heart, using it to build new knowledge.

More generally, what does Vygotsky mean for my current classroom? Consider the first moments of each class session. For much of my college teaching, I entered the room just at the scheduled time, or even a minute or two late, so that students would all be seated and ready. I began immediately writing on the board, what the topic was, outlining the major areas and then getting the students to help fill in the details.

If a student came to the front to tell me something—why he was absent last time, why she had to leave early, whether they could deliver their papers late—or if students said “good afternoon” as I entered, I was disconcerted and annoyed. Didn't they realize I had my mind focused on an intellectual challenge?

Now I try to come a few minutes early, giving my students time for those last-minute questions. I

begin class by saying “Good afternoon,” for I have now learned that my West Indian students, in particular, expect such a greeting.

Indeed, for years they thought I was rude in not responding properly. I also take attendance by reading the students' names, not merely to memorize them—as I did before—but slowly, looking at each student. In this way, I am more responsive to the students and more aware of their learning needs and cultural expectations—as sociocultural theory stresses.

At one time, inspired by behaviorism, I had my students work individually at their desks arranged in rows so I had visual control over everyone.

Later, inspired by cognitive theory, I sometimes put all the chairs in a circle and did much more group work, believing the excitement of the group would help students learn from each other.

Now, inspired by Vygotsky, I often have desks in rows as I explain ideas and write on the board. I have added more examples from my personal life, from my students in other classes, and from those I'm currently teaching. I try for examples that provoke emotion.

Often, the best laughs originate from a student comment, since my humor is not always on point for students whose experiences differ from mine. I know how to encour-

age the poignant or amusing story—and I have Vygotsky to thank for each success.

Examples and emotions pull students into the learning zone, make them ready to understand concepts in a way that pure behaviorism or cognitive theory did not.

I still use groups, and I still schedule reports from the groups to the whole class. But I've changed the details. The groups have more structure, a specific goal to discuss, and the reports come, not just from the most articulate student but from the "reporter" who sometimes is randomly assigned—thus making everyone part of each group.

The groups are smaller too, ideally three students in each one, instead of the six or eight I had before. The idea is to engage each student in that zone of learning, not simply to have some of the intellectuals dominant the discussion. My classroom is lively and so am I, working hard to keep us all in that energizing zone.

Some say that good teachers are born, not made. My dean credits my personality and

values for my reputation as a gifted teacher. There may be some truth in this, as the latest theories of behavioral genetics suggest.

But I know there have been times when I've been at a loss, when I knew that traditional teaching or my own teaching was inadequate. Theory has rescued me, moving me boldly forward to try something innovative.

Although I now see the shortcomings of behaviorism and cognitive theory, I still use techniques and attitudes developed from these theories. I am sure the same will happen with socio-cultural theory, because tomorrow's students, contexts, and circumstances will require new theories and methods.

What endures, however, is that practice must be organized and illuminated by theories. Overwhelmed by the press of student and curricular demands, I need something very practical to keep my head high. Without moments of an ivory tower perspective, I will be buried in the trenches, not merely working in them. As Konrad Lorenz once said, "Nothing is as practical as a good theory." ■

Works Cited:

There are dozens of current perceptive and provocative writings on how to apply behaviorism, cognitive theory, and social-cultural perspectives in the classroom, many well worth reading. As references here I selected only the seminal works that I first underlined, reread, and applied:

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