Old Ideas Made New Againⁱ

Susan Adler

University of Missouri-Kansas City

I started teaching long ago. The air was full of new ideas about curriculum and teaching methods. In the United States and the United Kingdom we had the "New Social Studies," "New Math," exciting hands-on science projects, and the like. It was all about engaging learners in the "methods of the discipline," in doing inquiry not just memorizing facts. This was a long time ago. Today we are hearing these old "new" ideas again.

In fact, we have been hearing for some years now that we have to do school differently; that teaching for the 21st century cannot be the same as it was back in the old days (i.e. the 20th century). The Singapore Teachers' Growth Model (TGM) recognizes that teachers need to be equipped with the relevant 21st century knowledge and skills so that they are better able to develop students holistically. Education in the past, we are told, focused, more or less, on memorizing a lot of information - learning and digesting a lot of facts. Today, we must think of education, the development of young minds more broadly, to include problem solving and creativity.

These changes in focus have come about because of the changing social and economic environment. Critics of the "old" education point to:

- A "knowledge explosion" what you learn now won't hold for the rest of your life; we must be life-long learners.
- The idea that today information is at our finger tips – there is no need to

simply remember information when it is so easily retrieved.

- A communication explosion which means we must be able to filter what we read and hear. How do we make sense of it?
- Related to this is our interconnected world – we hear news about the world far more quickly than we ever did. And people use that connectivity to make news. Consider the kidnapped girls in Nigeria. Without Twitter the world might not have been concerned, at least not for very long.
- Of course there are the demands of the economy – the post industrial age needs workers who are flexible, who are life-long learners, who are problem solvers and creative thinkers.

It's a new world. Consider the movie *Her*. The protagonist falls in love with his operating system. And it isn't absurd! Movies aside, young people today must deal with a world unlike the one I started teaching in; very unlike the one that existed when public schooling, schooling for everyone, began to be the norm. Once, you could get a few years of schooling, go out and get a job, raise a family, lead a good, productive life. But today, if you do not continue to learn, you lose.

New Old Ideas

But it occurs to me, that much of what we advocate today to enable young learners to succeed in the 21st century is

not new. I'm not saying we don't need to continue to change and develop our teaching skills and practices. Rather, we can build on what we know and do. The twentieth century was still going strong when I started to teach and started to hear some of the same ideas about education that we hear today. Many current ideas about good teaching have been around as far back as the 20th century, and earlier. And much or some of what is advocated today, you already try to do in your classroom. Who doesn't want to engage learners, to promote deep understanding, or equip young people to be problem solvers? The difference is what was once "good enough" is no longer good enough. In the past, if learners couldn't see how what they were learning was relevant to them, it was okay as long as they could remember long enough to do well on examinations. If they learned information but couldn't make conceptual linkages or apply what they learned to new situations it was okay as long as they retained the information. But today, we are told, it is not "good enough."

Consider what MOE describes as the over-arching Desired Outcomes of Education:

- A confident person who thinks independently and critically;
- A self-directed learner who questions, reflects and perseveres in learning;
- An active contributor who can collaborate and innovate:
- A concerned citizen who takes an active role in bettering the lives of others.

These are not new ideas. Educators have been talking about how to teach for real understanding for years.

John Dewey

Being an historian at heart, I think about old ideas. And this led me to reread some of the essays of John Dewey. John Dewey was an American philosopher who thought a lot about education in the late 19th and early 20th centuries. At the turn of the 20th century he founded a school in Chicago to implement his ideas. (The school, the Chicago Lab School, is still operating today.) Dewey was born in 1859 and died in 1952. I'm fascinated by that time span. Not simply because he lived a long, and productive, life. (In 1946, when he was 87, he married his second wife, a woman of 46. And they adopted 2 children.) I'm fascinated when I consider the kinds of changes he saw in his life time. He was born in a small town in Vermont prior to the American Civil War. Most of the nation, indeed the world, was rural. People lived an agrarian life style, often living and dying in the same little town or on the same little farm in which they were born. Children in these towns often went to school for several years, enough to learn some reading, writing and 'rithmetic. Only an elite few went to secondary school.

He died after World War II. country was urbanized, as was Dewey himself. He had lived most of his adult life in Chicago and New York. He had even lectured in China in the 1920s. The United States was no longer largely agrarian; it had become an industrial powerhouse. Hardly anyone, any more, lived without electricity or running water in their homes. The nation was much more mobile. People had been traveling great distances on trains for years. By the early 1950s automobiles were increasingly the transportation of choice for Americans and the highway system was beginning to expand. It was a very different world than the one he had been born into.

And it was precisely the drastic social, economic and cultural changes that Dewey saw throughout his life that moved him to think about education. He wasn't so much concerned about preparing young people for the workplace, although that was a Primarily, he was concerned about preparing young people as citizens in a democracy. Dewey had grown up in New England, where democracy had been practiced through town meetings. People of the town would gather and debate and deliberate and make decisions. I may have a somewhat romanticized view of the rational, reasoned discussions that took place in these New England towns. But decision-making reasoned by concerned for the common good is an ideal embedded in the very idea of democracy.

But Dewey's world, at the turn of the 20th century, was changing rapidly. People were flocking to cities for jobs and opportunities. Cities were places where you might not even know your neighbor and you might have little in common with those who lived on your street. How could democracy thrive under such conditions of anonymity? And immigrants were spilling in. Between 1880 and 1924 millions of immigrants arrived, mostly from Southern and Eastern Europe, countries which did not then have a tradition of democracy. How could democracy thrive when so many people didn't know what it meant? And industrialization meant that many people, especially the new immigrants and the migrants from the country-side, were working long hours, often at mindnumbing, and sometimes body destroying labor. How could democracy thrive when people were struggling to earn enough to stay alive? John Dewey believed that democracy was threatened increasing concentration of wealth and by the undermining of a sense of community as a result of urbanization, immigration and industrialization.

Of course, these are complex questions and the burden of meeting the demands and challenges of the new century could not simply be put on schools. But, Dewey believed that what went on in schools did matter. And Dewey believed that schools could be important agents of reform. By the early 20th century, most young people in the U.S. were in school at least through 8th grade. Indeed, some schooling in all was. by then, compulsory. states Increasingly, more youth were continuing beyond 8th grade. (Although not until the Great Depression did 50% of high school age youth actually graduate from high school.) John Dewey wasn't the only one thinking about education in this new world. School people in quickly growing cities were working to figure out how to accommodate increasing numbers children. At the same time, the study of education, or at least educational psychology, was beginning to establish itself at universities. It was during the early years of the 20th century in the United States that sorting children by age began to emerge. While the one room school house could still be found in small towns, big cities were "rationalizing" schools; that is, trying to organize them more efficiently. In the rationally organized, age-graded school, what you were expected to learn depended on how old you were. Rote learning continued to be the most common form of pedagogy. Classrooms, whether in the one room, multi-age, school house, or the new-fangled modern graded schools, were dominated by teacher talk and recitation. Students were expected to give back memorized information.

Dewey, and others, believed that rote learning, dominated by memorizing what the teacher or the textbook said, would not prepare young people as citizens in the 20th century. There's a story that Wiggins and McTighe (1998, p. 39), in their

Understanding by Design handbook, tell about Dewey:

John Dewey is said to have asked a class, "What would you find if you dug a hole in the earth?" Getting no response, he repeated the question; again he obtained nothing but silence.

The teacher chided Dr. Dewey, "You're asking the wrong question." Turning to the class she asked, "What is the state of the center of the earth?"

The class replied in unison, "Igneous fusion."

To Dewey, information that was merely acquired and stored up did not bring understanding. It did not bring wisdom by which he meant using knowledge toward the better living of life (Dewey, 1933/1964).

John Dewey in 1900 was trying to answer many of the same questions we wrestle with today - how should we prepare young people for today ... and tomorrow? How should schools function, he asked, in order to cultivate "responsible, creative and critical thought" which he identified as the aims of education. We are still asking how we should best prepare young people to be productive members of society. That is, how to we enable young people to think independently, to be lifelong, self-directed learners, to be active contributors who can collaborate and innovate, and who are concerned citizens who want to help shape a better world. His ideas are, surprisingly perhaps, not out of date. Today I want to focus specifically on two main ideas:

 Reflective thinking – which Dewey saw as best represented by the scientific method. • Experience – which Dewey argued was key to engagement and understanding.

Reflective Thinking

We talk a lot today about teaching for thinking, about critical thinking, and about inquiry methods. When Dewey talked about reflective thinking he spoke of intentional, deliberate control of the world around us: "It converts action that is merely appetitive, blind and impulsive into intelligent action" (Dewey, 1933/1964, p. 212). Careful thinking is not natural; it must be deliberately trained. He argued that children have to be taught to substitute scientific method for superstition. By that he meant that young people need to learn to examine and test ideas. Having, or finding, information is an important component of thinking. Merely possessing information does not assure the ability to think well. People, Dewey argued, have a tendency to jump to conclusions, make sweeping generalizations, or simply rely on authority. It's not even enough to have some logical formula if students are simply applying it when they are told to. We might teach an inquiry method, for example. But if students are simply following a set of steps to accomplish a classroom or assessment task, then they may not have learned to be reflective; that is, to apply thoughtful deliberation over a range of ideas. This last idea is important. How often have we taught a series of steps to be followed, without really seeing those steps as a scaffold which would not be needed if the students, eventually, really did learn to deliberate? Dewey was as concerned with developing an attitude of reflection as he was with developing the methods or skills of reflection. Indeed, Dewey argued that there was no single way of thinking: although he did discuss the scientific method as one important way to think about thinking.

Dewey's description of a reflective attitude is not unlike what we might say today. He described the reflective attitude three characteristics: with mindedness. whole heartedness and responsibility (Dewey, 1933/1964). Openmindedness refers, of course, to openness to new ideas and questions, a willingness to listen to diverse viewpoints, and the ability to recognize the possibility of error. "The path of least resistance," he wrote, "is a mental rut already made" (Dewey, 1933/1964, p. 224). Whole-heartedness refers to focus and enthusiasm. Who of us has not taught learners whose minds were elsewhere or whose attention was divided? And in this era of multi-tasking, focus is certainly a challenge. Dewey challenges teachers to engage learners. I'll say more about this later in a discussion of his ideas about "experience." Finally, he spoke of responsibility. To be reflective does not mean to live in the castle of your mind. To reflective is to be aware consequences and to act with integrity. I'm reminded of Howard Gardner who argued in his essay on the Five Minds for the Future that one of the "five minds" is the ethical mind (Gardner, 2008). It is not enough to know one's responsibilities, but one must act on them as well. Part of being reflective learning is to consider consequences and act on those responsibly.

Experience

To Dewey, experience was key to education (Dewey, 1938). Acquiring a body of knowledge is not unimportant, but it is not an end in itself. Knowledge, Dewey argued, is a means for dealing with the present and with the future, not simply something to be acquired and stored. Nor, Dewey argued, can we say that students should acquire knowledge simply because it may be useful in the future. Now, he would have said, is not merely preparation for the future. We always live in the

present. Having gained information does not assure that such information will be used in meaningful and effective ways. Only by extracting meaning now will learners be prepared to use what they have learned in the future. In Dewey's words: "If I were asked to name the most needed of all reforms in the spirit of education I should say: 'Cease conceiving of education as mere preparation for later life, and make of it the full meaning of the present life." (http://www.biography.com/people/johndewey-9273497#teaching-career&awesm=~oFj5B46PQV42pK)

And experience in itself is not necessarily educational (or as Dewey would say "educative"). It's the quality of the experience that matters – and therein lays the challenge. Dewey discussed two criteria of effective educational experiences: continuity and interaction. By *continuity* he meant that the educator must see the direction the experience is moving toward. One experience affects the next. "Every experience is a moving source. Its value can be judged on what it moves toward and into" (Dewey, 1938, p. 38). An educational experience must be conducive to continued growth and also must be relevant to the individuals involved. Thus gaining subject matter begins with the learners, and expands through an orderly process the educator can guide, in the direction of greater organization; that is, the process moves toward a body of knowledge. organized knowledge of the subject matter expert is not the starting place but the goal that the educator guides the learner toward.

This brings us to the second criterion: *interaction*. The educator must take into account both the external setting that can arouse curiosity, set up the desire and create a purpose to learn. At the same time, the educator must take into account the notion of continuity; that is, the possible

ways that what is learned from one experience impacts future experiences. The educator must also understand the needs, desires, purposes and capacities of the individual and how these are likely to interact with the setting.

Finally, although not one of the criteria of the educative experience, it should be remembered that experience is a social process in which the teacher is not so much the boss as the leader of the groups' experiences. School, Dewey wrote, is a form of community, and to learn the child participates in the life of the community (Dewey, 1897/1964). But it is not simply a of learning though matter interaction. Remember, Dewey concerned with social reform and the betterment of society. Specifically, he was with social reform in a concerned democratic context. Therefore, school must help learners develop a social consciousness. To quote Dewey: "the adjustment of individual activity on the basis of this social consciousness is the only sure method of social reconstruction" (Dewey, 1897/1964, p. 437). Individuals are social and school is the process of socializing young people into society or, as Dewey put it, "...all education proceeds by the participation of the individual in the social consciousness of the [human] race" (Dewey, 1897/1964, p. 427). Education is about helping the individual perceive him/herself as part of a social group, to know what his/her own activities mean in social terms. Education should help young people develop as concerned citizens who take an active role in bettering society.

Today

Dewey's ideas have resonated through the years and into the 21st century. Research on how people learn reveals that when the learner is engaged and finds material meaningful in some way, he or she is more likely to develop deep understanding rather than simply memorizing material. Studies also show we learn by connecting and sharing. I was sitting in on a first grade geography lesson recently and was surprised at how sophisticated the children's understanding of maps seemed to be. I realized they were connecting the lesson to lessons they had learned by playing on computers. "Ohh, like Google Earth," I heard one child say. Others referred to games they were familiar with. The learning that engaged them at home on the computer provided a basis for further learning as they discussed maps and globes in the classroom. In Deweyian terms, their engagement was "wholehearted" because what they were learning seemed relevant to them and they were able to build connections something they knew.

I could cite many educators who today discuss ideas that sound very "Deweyian." The work of Fred Newmann and his colleagues on what they have called authentic pedagogy seems to give us guidance for today (see, for example, Newmann, Secada & Wehlage, 1996). working with Newmann. colleagues on a number of studies, argues that to create deep learning experiences learners must be engaged in using knowledge in meaningful, real-world ways. Authentic pedagogy, as they have developed the concept, asks learners to construct knowledge using disciplined inquiry to produce work that has value and impact beyond school (Saye, 2014). Let's briefly consider each of these elements in turn.

The first element is the *construction of knowledge*. Instead of asking learners to simply reproduce knowledge, they are asked to use knowledge in new or different ways. Learners are asked to use higher order thinking. This means requiring

students to use information and ideas in order to synthesize, generalize, explain, hypothesize, or arrive at some conclusion or interpretation. When students engage in higher-order thinking, they must solve problems and develop new meanings for themselves. There is an element of uncertainty and unpredictability in the process.

The constructivist teacher sets up problems and monitors student exploration, guides the direction of student inquiry and promotes new patterns of thinking. Classes can take unexpected turns as students are given the autonomy to direct their own explorations. Consider this excerpt from the (U.S.) *National Curriculum Standards for Social Studies* (2010, p. 111):

Students in Juliet Singer's eight grade social studies class have just been told that their school will no longer offer music instruction because the Board of Education had to cut \$25,000 from the budget. Singer's class has been studying communities and community/school governance, and the students want to know how and why such a change in their program could happen.

Singer asks the class if they can think of a way to save the music program by cutting something else in the budget or by raising more money from the community or a combination of both. Small groups of students research how the costs of music program compare to other programs, such as reading, science and sports. Other groups explore the possibilities of raising taxes. Others investigate community support for music.

After the groups come together and discuss their findings, they prepare a

statement for the school board on what they think the board should do, including PTA and student fundraising activities. ... When students have refined their policy recommendation, they send it to the board. ... Singer invites a board member to speak to the class again and explain how the process of change will move forward if their plan is accepted.

In this example, students gathered information, generated ideas, and reached conclusions. Of course there is the element of the unexpected. What ideas might they develop? How will the Board of Education respond? How will the students feel if their idea is rejected?

The second element is the use of disciplined inquiry. Here students are expected to develop and demonstrate depth of knowledge. Note the use of the word "disciplined." That means not simply "orderly," but it also points to drawing on the disciplines. Students are expected to deal with the significant concepts or central ideas of a discipline. But, as Dewey cautioned, the body of knowledge is not an end in itself. Students use knowledge to understand arguments, solve problems, or construct explanations. That is, to engage in an inquiry process.

I used to start my class in eighth grade history with a lesson I called "A Book, A Coin, and a China Plate." I brought to class a book in a language other than English, a coin from a country other than our own, and a dinner plate (not really fine China). I created story a archeologists uncovering these items on a recent dig on the site of an ancient culture. What might we infer (or guess) about the people of this culture based on these artifacts, I asked. The students said that at least some of the people must have been literate. They had a fairly advanced

manufacturing technology; they were able to make books, coins and plates. They had a monetary system; they didn't just trade. And so forth. I had to ask questions, of course, but they were pretty good at developing inferences. This led to a discussion of how we know about the past. what artifacts of today might tell people in the future, and so forth. I wanted them to understand that history was the story we created about the past, not simply what happened in the past. All year long I them with primary tortured documents and asked questions which didn't have a "right" answer. There might be poorly defended answers, answers not based on evidence. But not really wrong answers.

One year I had a particularly difficult group of students. Toward the end of the year we went on a field trip (or learning journey) to a reconstruction of an early settler village near the town I taught in. Much to my relief the students were well-behaved. They also asked great questions about what they were seeing. They were eager to hypothesize about the use and purpose of artifacts we looked at. The docent told me they were one of the best groups she'd ever worked with. They were very proud of themselves. So was I. And I had real evidence that they had learned a core concept of the nature of history.

Finally, Newmann and colleagues stress the importance of real-world impact. Learning that has value beyond school is, after all, what school is really about. Can students relate what they are studying to personal or social issues and concerns? Newmann's work also points to importance of substantive the conversation. This feature involves considerable discussion and interaction about the ideas of a topic that develop and build on ideas presented by others in the conversation. This involves sharing ideas

and multiple exchanges in which students and other participants develop shared understanding of a theme or topic. Or, as Dewey would say, learning is social.

I observed a fifth grade classroom one year whose teacher engaged the children in the study of the community. She really engaged them, moving beyond textbook to help them understand the community and its concerns. The children decided there needed to be a traffic light at a busy intersection. And here's where the teacher really impressed me. They didn't simply present their arguments to one another or role play a city council meeting. Rather, the class worked together to put together a real presentation to the city council. They worked together around a social concern. And they got on the agenda of the city council. The whole class, or many of them, went to the meeting and their ten-year-old spokespeople made their presentation. They were well-practiced. They had their evidence, supported with They were really engaged in visuals. social action.

The lesson continued when the city council decided not to install a traffic light at that corner and sent a clear explanation of their reasons to the class. The students learned that in decision-making there are many factors to take into account, in this case traffic flow and the location of other traffic lights. Despite not having won the argument, they didn't feel defeated. They felt empowered, knowing that working together they could talk to power.

No one, realistically, expects all classrooms at all times to reflect these elements of authentic instruction, or to be exemplars of the experiences Dewey urged for learners. But all students should have some, preferably a lot, of learning experiences in which they are engaged, in age appropriate ways, in constructing

knowledge and exploring ideas. They should have experiences, at least some of the time, with disciplined inquiry, even young children. And they should have the opportunity to occasionally at least, engage in real world activities. And at least some of the time, can't they engage in constructing knowledge, in disciplined inquiry and real world activity, all in one project? Yes, schools are preparing young people for the future, for the unknown. But we should also be engaging them in the unknown today. It's not about something they will do later, only after they get all the basics mastered. As Dewey pointed out, if it's not meaningful and engaging now, we have no assurances it will be meaningfully and expertly applied later.

An important challenge for teachers is not to get into the rut of "what works." And that is scary. If students are doing well on exams, and parents are satisfied, how can we expect teachers to change? And yet the best teachers I know have always said, "It's not good enough." They keep learning how to do this difficult job even better. To change doesn't mean you are not teaching well; rather, it's about taking a little or a big step better. Teaching 40 young people in a classroom is a daunting task. Balancing competing demands is a very real struggle. But I urge us to keep asking questions, keep being thoughtful teachers and not to lose sight of the long range goals for those kids we care about very much.

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