

Web-based Instruction: What Would John Dewey Think?

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ABSTRACT

Teaching is a challenge for all, old and young. It is especially so, in our digital age and the age of social networking. This paper explores the notion of exploring what someone like John Dewey would think about educating future teachers in an online classroom. This basic question is addressed: would John Dewey support web-based instruction for those being trained in teacher education programs? The paper focuses not only on the writings of John Dewey to address the question of online instruction, but also uses contemporary writings and research studies to explore related concepts of community, instruction, mission, and curriculum. The paper uses Dewey's own questions (1899) used to guide the formation and design of his lab school. The questions are related to the following issues and concerns: 1) how can we bring the school closer with the home and neighborhood; 2) how can content, such as history, science, and art have true/real significance for children; 3) how to teach in a way which "motivates" children to learn; and, 4) how can we give students the "individual attention" they need and deserve. In an age of increasing class sizes, and dramatic increases in online distance learning environments, the Dewey questions have important insight to offer educators. In conclusion, strengths and weaknesses of online instruction are discussed within the lens of a John Dewey perspective.

Anyone who searches the great thinkers for their opinions and viewpoints can be sure of going astray before obtaining a result... Martin Heidegger, 1987

Prologue

I recently took the opportunity to revisit a bit of classic fiction: *Brave New World* (Huxley, 1932). Early in the book, Mr. Foster explains to a student, the ways to keep the Epsilon embryos below intellectual par and, at the same time, speeding up the physical capabilities. The benefits of such a successful intervention would then greatly benefit society. The goal is to create the Epsilon to be physically able to do work at a very young age with little consideration to the development of the embryo's intellect, or just enough intellect to carry out the basic required tasks assigned to them. This is done in the context of one of Huxley's societies described and defined in the work and this society is "built entirely on Community, Identity, Stability. Communal security has replaced all individual freedom" (Bloom, 2003, p.3).

I think the reason I selected this passage of classic fiction is because of the inner dialogue I face each day when I am "logged into" my virtual online class. Over and over again, I ask myself, what kind of students are we creating here? You see, the problem is quite simple: I am now teaching in academe and I thought I had arrived at my dream position. My training, formation, and studies prepared me to be a university instructor, but soon after I began this long awaited position, I found myself teaching web-based courses.

Online education is growing quite rapidly (Allen & Seaman, 2010) with enrollment figures of approximately 1.6 million students in the fall of 2002 (or 9.6% of total enrollment) increasing dramatically to 5.6 million students in the fall of 2009 (or 29.3% of total enrollment). Projections estimated by experts suggest that the enrollment figures will continue to rise each year. Given this dramatic increase, the implications of teaching online courses in a teacher education and teacher preparation program are important. In a teacher education program, we are training future teachers to develop the craft and art of teaching. Making a decision to prepare classroom teachers in a virtual environment is an important curriculum design. However, I am not convinced that we have considered the implications of such a choice. Is this an appropriate mode of instruction for future teachers to learn how to teach? Is this sound teaching practice? Is this what it has come to: virtual teaching, virtual learning, virtual grading, virtual classrooms, and virtual existence? With the continued development of online classes, are we creating students who are capable of doing tasks, assignments, and can carry on basic responsibilities, but who are not capable of reflection, critical thinking, and problem solving? Are we creating a new order of students who have very limited appreciation for learning, thinking, and understanding, "Epsilons," if you will?

What is most challenging about preparing future classroom teachers in web-based classes relates to the very mission of our college described by external accrediting organizations such as NCATE (National Council for Accreditation of Teacher Education). It is there that we learn the charge to train future teachers in the knowledge, skills, and dispositions of the profession. Perhaps one could argue that the first two components of this tri-fold charge—knowledge and skills—can be adequately achieved in an online environment. However, when we consider the nature of web-based teacher education courses, we are challenged greatly in creating proper "dispositions" of future teachers in a web-based environment. Furthermore, we are almost completely prevented

from evaluating the dispositions of web-based students given the “virtual” realities of web-based courses. The question, then, becomes, are there such competencies and “virtual dispositions?”

Granted, we are in a new technology age, and we may even desire to create “community” even if we are only connected by cyberspace. True, we are able to be “connected” electronically and there are mechanisms in place to create “electronic community units, web-based communities, electronic community of learners, virtual learning communities, e-learning community environments,” and the list of possible names for online classes continues. Obviously, with all of the emphasis on social networking these days (Facebook and Twitter, for example) I contemplated the implications of virtual teaching and other important questions about this web-based environment as I sorted and filed electronic documents and assignments I received from my “virtual” students. I began to look at possible answers and solutions to these questions about this virtual approach to teaching and learning. This chapter will focus on contemporary writings and research, a few references from theological and doctrinal sources, and, more importantly, the writings of John Dewey.

This latter source, the writings of John Dewey, present a particular challenge in constructing a “dialogue” given the fact that web-based instruction was not in the horizon of Dewey’s eyes. After all, musicologists are able to interpret the thoughts and ideas of composers from long ago given original musical manuscripts; archaeologists are able to construct details of life and living using parts of unearthed objects and human remains; theologians and language experts are able to construct modern translations and interpretations from ancient languages and texts, and historical and scriptural artifacts. Perhaps if other disciplines can carry on such “reconstructive” work, then it will be possible to construct a “Deweyian” dialogue and ideas about web-based instruction.

To anticipate the dialogue with Dewey and to serve as the basic framework for this chapter, the following hypothesis was explored: would John Dewey, philosopher and educator, support web-based instruction for those being trained in teacher education programs? This chapter reaches a negative conclusion for the hypothesis due to these basic reasons: web-based instruction is antithetical to the definition of community of learners and education as social and democratic inquiry; web-based teacher education courses often do not help students to create the necessary theory to practice connections; web-based teacher education courses often do not help teacher education candidates to grow as teachers and fully develop understanding necessary to become guides and directors of learning in the deeper, richer sense; web-based teacher education courses often violate the true nature and structure of apprenticeship models of instruction; and, the very size of web-based courses continues to increase beyond appropriate class sizes for any adequate monitoring of student learning.

Limitations

There are several limitations to my chapter. First, I am not an authority on Dewey and I continue to be a student of Dewey. Nevertheless, I forge ahead with what I believe to be a valid interpretation of Dewey’s thinking on the subject. Second, this chapter and

the arguments discussed are focused on the fact that web-based instruction is being used a great deal in the preparation of future teachers. Though I am no longer teaching at the same university (when this chapter was first created), my basic concern is about the training of future classroom teachers in a virtual environment. My arguments are focused on that fact and are not intended to address all types of web-based classes that exist. Third, and lastly, I admit a certain bias about online instruction given that the very problems of web-based instruction came to me in the context of my work—it is difficult to be objective.

I do believe that there are several advantages for both instructors and students who participate in online instruction. It isn't all bad news. Web-based courses allow students to engage in course content when they are ready and according to their best schedule. It allows students as much time as needed to think carefully and reflectively before submitting assignments, discussion topics, and chats. It prevents students from spending time and money in travel. Instructors can take time to reflect on and respond to student work, and it allows instructors to check work when it is most convenient. Given the paperless environment, work can be exchanged freely and cost effectively from anywhere.

Defining “Community”

It will be important to first define the term “community” as it is used repeatedly when defining individuals who are enrolled in a web-based course. These individuals are often described as a “web-based community.” It is interesting that when individuals are enrolled in a course that gathers in a classroom, “in-person” or “face-to-face”, they are not designated as “classroom community” or “course community,” but simply “class” or “course.” Maybe this is simply a matter of semantics; maybe not. In any case, the term “community” is multifaceted and complex. It has a definition which can range anywhere from simply meaning a group of individuals with a common goal or common interests, to a more complex meaning defined as individuals with common goals, interests, and values who are dedicated to supporting, accepting, and valuing all members of the group and larger society. For the purpose of this chapter, the term “community” takes on a deeper, broader, and, perhaps, a religious connotation.

The term “community” can be amplified with an example from religious tradition. The *Spiritual Exercises* of St. Ignatius of Loyola (1491-1556) are often used to help prepare young men for the priesthood and women for religious life. To read and pray these writings of St. Ignatius in the context of silent retreats allow young men and women to prepare for a life of spiritual reflection and service. These exercises can also provide insight and a first introduction into the ideas of St. Ignatius and the Jesuit order. The work of St. Ignatius was an attempt to discover, in the context of prayer and service of others, Jesus Christ and one's deeper self and mission. Furthermore, Ignatius had a commitment to continue the work of Jesus Christ by actively serving believers and non-believers in the company of his friends. He did not do this work alone: living, learning, praying, serving, and teaching were all in the company of his friends (Schroth, Jurich, Samway, Collins, and Blake, 1968). This approach to a life of service, living, and learning, happened with

others. For St. Ignatius, true learning and understanding, and spiritual growth, occurs in the context of a community.

The idea of deeper richer understanding of the notion of classroom community or learning community is supported by Jaffee (2004) who identified four important factors important to students in higher education: 1) greater depth of knowledge is obtained when material learned in one class is connected to other classes and topics; 2) greater learning occurs when students are able to discuss material with other students in their classes; 3) students achieve more when they are able to think critically about the material learned and are able to apply the material in a problem solving context; and, 4) a greater level of student satisfaction toward their education is reported when they are able to relate to their instructors outside of the classroom.

Dewey defines “community” in ways that approach this more complex definition. In his essay, *The School as Social Centre* (Dewey, 1902a, p. 80), Dewey defines the school as a social center with a four-pronged mission: 1) the school must provide the training for individuals to adjust to the changes of the world; 2) the school must help to redefine social discipline and control; 3) the school must help the individual to make the necessary connections between theory and practice; and, 4) the school is a community which is to provide continued life-long learning experiences for its citizens.

All four components of the school center mission are extremely important; however, it is the fourth mission of the school social center that we see Dewey’s idea of the school learning community. Dewey defines this fourth mission of the school in this way: And finally, it [the school] must provide means for bringing people and their ideas and beliefs together, in such ways as will lessen friction and instability, and introduce deeper sympathy and wider understanding (Dewey, 1902a, p. 90). Dewey makes clear in this essay that by bringing individuals together, and in the very act of meeting others in these school social centers, people begin to understand each other in ways that cannot be achieved in isolation from each other. Dewey believed that the coming together of individuals on common ground and in common classrooms, creates the environment for individuals to learn, grow, respect, and appreciate culture, class, personality, and gifts and talents of others. The mission of the school and social center was intricately tied to this idea of the school community.

It is in this first definition of community that we can begin to formulate the first part of our dialogue with Dewey about web-based learning communities. Dewey would first question the use of the very term “community” with electronically linked learners in an online learning environment. Dewey would have concerns with a fully published sequence of reading materials and assignments that individuals construct in isolation, but this will be discussed later. We are concerned with the idea of community and the communication of ideas. What would be troubling for Dewey is this: the idea that individuals respond in an electronic correspondence fashion with little interaction between others. This is counterproductive to the educative experience. The web-based course enhancements such as chat rooms and discussion boards and perhaps group assignments counteract this concern (Lynch, 2001), but do not completely approach the learning experience as explained by Dewey and others. This type of virtual learning environment cannot be supported by the writings and teachings of Dewey.

Dewey and Web-based Curriculum

Dewey first delivered as a set of lectures for people who were interested and affiliated with the University of Chicago Elementary School in 1899. The lectures, now eventually compiled in volumes of his works, are addressed to adults who are interested in understanding the school. Given that these lectures focus on the needs and children in an elementary school, we may, at first glance, think that Dewey's ideas cannot really address the learning issues of adults enrolled at a university, and certainly not those enrolled in a web-based class. As we see from many works of Dewey, he often asked questions about particular topics he discussed rather than approaching topics with dogmatic statements and educated opinions: Dewey was often more concerned about why something was chosen and less about what was done. Perhaps, this is due to the fact that he was primarily a philosopher.

In the following section, we consider four general questions that were used to guide the formation and design of the lab school created in the first part of the last century by Dewey and those responsible for teaching the curriculum of the school (Dewey, 1899b, p.57—66). We see that the questions Dewey and others generated are helpful to us in our understanding about what kinds of questions Dewey might ask about our web-based courses and the instruction taking place in these courses.

The starting point for developing curriculum for the school, according to Dewey, was around four basic questions, not a set of rules or principles. The answer to the questions guided the design of the curriculum for the lab school. Each section that follows will begin with Dewey's question and a discussion will follow describing the implications of the question for our web-based instruction problem.

Dewey's First Question

“What can be done, and how can it be done, to bring the school into closer relation with the home and neighborhood life—instead of having the school a place where the child comes solely to learn certain lessons?” (Dewey, 1899b, p. 59)

We know from many other writings by Dewey, that a planned sequenced curriculum is not the starting point for learning. The child is the curriculum. So what would Dewey think about a published online course of materials that exists on the web which simply “waits” for a student to log “into?” Dewey's question for our web-based instruction revised from this first question might state: If students are logging onto their computers and accessing certain files and lectures and readings, what can be done to help create the positive connections between their own teaching practice in their classrooms, between their own experiences of classroom and instruction and the knowledge and theory they are learning in the course? Similar to the lab school question, our concern should also be online courses being simply a place where teacher trainees “log on” to a course to learn certain lessons. The real concern is helping students to realize closer connections between their world of teaching and their world of learning. Dewey would ask, “What can be done to help facilitate the connections between what is being learned in the web-based course and the actual work of teaching?”

The very design of the laboratory school in the early 1900s is a testament to this design of education and learning. It is in the context of educators testing out their ideas of teaching and learning: the two are intertwined for Dewey and cannot be separated. Dewey (1904a, p.274) relates the mission and purpose of the school by discussing a bit of historical context recalling the philosophy of Colonel Francis Parker:

. . . the cause of the teacher and the cause of the child are one. It is through the improvement of the standards, ideals, and working equipment of the teacher that the cause of education is to be advanced. But it is only in the enrichment, direction, and freedom of the life of the children that this progress takes effect and has reality. The better training of teachers and the providing of a better school life, in which the children may find themselves, are Siamese twins of educational reform.

The better training Dewey speaks of is this idea of teachers having the ability to reflect on their teaching in the context of working with students.

We return to our idea about community of learners discussed earlier. Students in an online environment are somewhat isolated from their peers and are only virtually able to share their thoughts and ideas with the instructor and other students. “Can students construct meaning about their future teaching by simply reading, responding, and communicating with the instructor?” Dewey might ask this question if he were still with us today, but he would also want to discuss how important the idea of the “community of learners” is an important dimension in the training of future educators. Dewey (1902b, p.23-24) discusses the importance of learning as modeled by the family:

If we take an example from an ideal home, where the parent is intelligent enough to recognize what is best for the child, and is able to supply what is needed, we find the child learning through the social converse and constitution of the family. There are certain points of interest and value to him in the conversation carried on: statements are made, inquiries arise, topics are discussed, and the child continually learns. He states his experiences, his misconceptions are corrected...The child must be brought into contact with more grown people and with more children in order that there may be the freest and richest social life.

The quick answer to this question “can we create online learning communities” given to us in our university online certification program was this: community or virtual community is created through online discussion boards and online chat rooms facilitated by instructors and students together attempting to understand each other’s ideas through these two main ways. Group projects and group assignments are additional ways community can be created in online classes, just as these same instructional approaches create community in face-to-face environments. These— assignments and projects, discussions and chats—approach the environment Dewey supports, but do not completely address it. After all, constructing or creating meaning for Dewey is through cooperative inquiry and democratic educational processes (Campbell, 1995). The question Dewey has

for us in relation to community is this: “Are web-based instructors doing all they can to create learning communities in their courses?”

Dewey would continue this learning community discussion with greater details. The longer answer about this issue of creating an online learning community is much more complex than simply instituting chat rooms and discussion boards. It appears that the exchanging of ideas and the true discussion of thoughts generated by readings and projects goes far beyond the “mechanics” or “vehicle” used for the discussion. It appears that communication of ideas has a richness of many levels of verbal and nonverbal discourse and it is not easily created in a virtual learning environment. To look into others eyes as they express their thoughts, to look at their body language, and other non-verbal thoughts cannot be captured in web-based environments. Dewey might suggest that we are losing this art of communication in our classrooms, either face-to-face, or online: learning communities in any variety, Dewey might argue, are rarely being created. Dewey might ultimately ask a broader question, “What has caused a lack of concern for building learning communities which foster deeper connection to others, respect for individuals, critical thinking, problem solving, and the ability to help students to apply knowledge and experience of learning to real world contexts?”

Dewey’s Second Question

“What can be done in the way of introducing subject-matter in history and science and art, that shall have a positive value and real significance in the child’s own life; that shall represent, even to the youngest children, something worthy of attainment in skill or knowledge; as much so to the little pupil as are the studies of the high-school or college student to him?” (Dewey, 1899b, p. 59)

Here, the question is not so much about specific content, necessarily. Content knowledge is important. However, for Dewey, the emphasis is the impact the content has on the life of the learner. If Dewey were to review the content of web-based courses, he might discuss his concerns about the real significance of the learning experiences and the value of the information in the life of the individuals taking the course. The question asked by Dewey here might be about the information presented to the individual, the relevance of the information, and the applicability. Furthermore, the fact that the content is pre-packaged and pre-arranged would be troublesome for Dewey. The object made by many here might be that pre-packaged content for web-based courses is similar to face-to-face courses where textbooks are used as the content. The merits, or lack thereof, could be debated feverishly. In any case, Dewey might ask this question, “What content and material being used for courses is helping the student to become a more knowledgeable, skillful, artful, and creative future teacher?”

Related to this content problem of web-based courses, Dewey would ask questions about the applicability of the content being learned in these web-based courses. Dewey (1904b) discusses this problem carefully, obviously not within a “technology” framework. He argues that there is a dualistic problem with teacher training. Even then, as it is now, there appeared to be the battle for emphasis on teaching future teachers their “content” and “how to teach” their content. Dewey speaks of the isolation between the two approaches: learning content and learning pedagogy. For Dewey, the children

ultimately suffer in the end when there is a tug-of-war between content and pedagogy. The teachers are gaining knowledge of the tools of teaching and knowing their content, but they are not growing as teachers and developing the greater understanding necessary to guide and direct learning in the deeper richer sense: he/she “cannot grow as a teacher, an inspirer and director of soul-life” (Dewey, 1904b, p. 256).

Here, we have an interesting question to consider for web-based online instruction. If the battle continues to be content vs. pedagogy, in a course to gain insight into pedagogy, are we truly being fair to our children who are being taught by these web-based trainees? Dewey would find this type of education and learning of pedagogy troublesome. Dewey bemoaned the fact that in many training schools for teachers, they were cut off from contact with children and youth during their “content” learning and then were expected to be successful at communicating this knowledge to the children they teach. The real concern here, is for helping web-based students to have the “real significance” learning experiences that Dewey discusses in his speech. There appears to be limited opportunity for “real significance” in web-based instruction given the nature of these “virtual” classrooms. There is more emphasis of virtual than real. We will again revisit this discussion in the next question, but before we advance to the next question, a final few words about the idea of learning in isolation is worthy of discussion.

As mentioned in the previous question, the lack of communication or limited communication between students creates a learning deficit. Dewey addressed this notion of isolation as a source of waste in his third lecture to the parents’ association. He believes that “all waste is due to isolation” (Dewey, 1899a, p.39). Here he describes in great detail that the school as an institution is certainly many things: a “school system” which contains all administrative levels (school board, superintendent, buildings, teachers, etc.). Dewey is clear that what he means by school organization is that the school is a community. In this speech, he is careful to help parents to understand the interdependent nature of students and adults and that learning happens in community and not isolated pockets of time and space.

Dewey’s Third Question

“How can instruction in these formal, symbolic branches—the mastering of the ability to read, write, and use figures intelligently—be carried on with everyday experience and occupation as their background and in definite relations to other studies of more inherent content, and be carried on in such a way that the child shall feel their necessity through their connection with subjects which appeal to him on their own account?” (Dewey, 1899b, p. 60).

We can see from this question that Dewey was concerned with the splintering of subject matter into various skills and subsets of information, a battle that continued from Dewey’s time until the present day. More importantly, he was also concerned that students have a deeper appreciation for not only what is being learned but the why. That is to say, Dewey was concerned that students have the motivation of appreciating the reason for needing to learn the skills of reading, writing, and arithmetic. Students receiving large doses of skills in these areas may not completely appreciate the skills and, ultimately, not internalize the skills. For Dewey, isolated subjects and skills outside of the

application of these skills are not true education and true learning. The argument, in short, is a deeper understanding of the psychology of learning.

This argument brings us to our web-based instruction question. Dewey would argue that teacher trainees need to develop a deep understanding of educational psychology. Furthermore, Dewey would argue that there is a distinct difference between two training approaches: the apprenticeship model and the laboratory model. Dewey would argue that what we are doing in our teacher training programs are apprenticeship models which emphasize the wrong information to be obtained by trainees. In this model, which had wide appeal in Dewey's day and even our time, trainees are equipped with ways to teach, skills to learn, techniques to use, approaches to try, and tricks of the trade. Dewey saw these as a noble effort to equip young teachers being challenged by the demands of teaching. But Dewey suggested that much more depth and understanding in the apprenticeship model was needed. He called for attention to other more complex realities of teaching and learning: these insights were to be gained through a deeper and richer reflection and study of classroom interactions between students and between students and teachers. It was in observing these interactions and processes that teacher trainees completely begin to understand the art of teaching. For Dewey (Dewey, 1904b, p.254), this was, in a sense, a way to understand the very thought patterns of teachers and students:

To be able to keep track of this mental play, to recognize the signs of its presence or absence, to know how it is initiated and maintained, how to test it by results attained, and to test apparent results by it, is the supreme mark and criterion of a teacher. It means insight into soul-action, ability to discriminate the genuine from the sham, and capacity to further one and discourage the other.

Perhaps this problem of apprenticeship and laboratory models of training under discussion reaches far beyond web-based instruction for teacher trainees into teacher education programs in general. This could certainly be the case; however, that discussion will have to take place in another time and place. We must focus on web-based instruction for teacher trainees. In a web-based course, it appears that even with assigned readings, text books, online chats and discussions, and required field experiences and observations, we are still approaching teacher training as an apprenticeship model. We are failing to help future teachers to develop this deeper understanding of the mental play of students and the reflective practice required of master teachers. In our web-based instruction, we provide all of the necessary apprenticeship tools, but forsake the deeper, richer tools of the reflective practitioner.

Dewey's Fourth Question

Dewey doesn't phrase this fourth question as a question. This fourth question is simply a statement: Individual attention (Dewey, 1899b, p. 60). The implied question is basically this: "What type of attention must teachers give to students?"

Of the four questions described by Dewey, this last question is the most succinct section of the talk given to parents in 1899. It was quite direct: keep the number of

students per class very small and the number of teachers much larger. He recommended eight to ten students per class with one teacher for each group. It is clear that Dewey wanted teachers to be able to direct student learning and in order to be most effective, the number of students needed to be kept to a minimum.

It is clear what Dewey would think about web-based classes that have enrollments that exceed 30 students for one instructor. Some universities limit the size of online classes, but the number can be changed very quickly (Farrell, 2004). These enrollment figures prohibit instructors from providing the guidance students need in their training and formation to become successful teachers. Large enrollments in web-based courses are economically desirable by universities and colleges of education: the enrollment figures are a financial boost to university (Farrell, 2004). However, with web-based courses in a teacher education program, we are failing to create students who will be effective teachers and are failing to provide a more adequate learning environment for teacher trainees. We are failing to provide the necessary vehicle for instructors to understand the needs of students and to afford them the ability and time to direct their learning, thinking, and reflection based upon their posted assignments, discussions, and chats. Large enrollments in web-based courses are good for the university but not helpful to students and instructors. Dewey might ask the following question: With such large enrollments in web-based classes, can we be the mentor, the guide, or the facilitator of student learning in teacher education programs?

Conclusion

This chapter explored the concerns about educating and training future classroom teachers in a web-based environment. The dialogue with John Dewey helped us to ask a number of important questions about their web-based training and about the design of teaching for these future teachers. Indeed, we are part of a new world order of technology and teaching. We are training people for varied professions virtual environments and thousands of students are logged into courses each day obtaining the information necessary to be successful in their future jobs.

In the end, can we be certain that these virtual students will have the knowledge, skills, and dispositions to teach our students? At the very least, Dewey would probably have thoughtful encouragement for “hybrid” online courses in the field of education allowing for field-based experiences, activities, and internships in teaching. Without a component of authentic real-world learning, it appears that John Dewey would never support pure online education and instruction.

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