

Editorial

Constructivists: Don't Blame the Tools!

In a recent meeting I witnessed a professor lambaste the representatives of a distance education delivery system, who, he said, promoted the use of communications technology that results inevitably in an industrial form of teaching that emphasizes packaged information and authoritarian teacher ownership of knowledge. This is incompatible with postmodern learning theory. It makes it impossible for people like him who—in the classroom—practice a more progressive, constructivist teaching approach. As the instructional designers protested their disinterest as to what teaching philosophy any instructor wished to follow, I recalled a previous discussion that in one respect reflected a view that was consistent with the professor's. Where the professor blamed the communications tools for what I perceive as his inability to work out how to use them to provide the kind of learning experience he wants, on that earlier occasion it was the designers who went overboard in the other direction. They have spent a lot of time, money, and creativity in exchanging one Internet delivery platform for a different one, and to hear them speak it would seem that most of the challenges and problems of teaching at a distance will now recede into memory, so wonderful are the accoutrements of the new system, once this new system was broken in. Needless to say “breaking in” actually meant dealing with a lot of breakdowns—and so much confusion for students and faculty as we unlearned one system and learned the new, that we would have greedily snatched back our old tools if we had the chance; but also, needless to say, just as we had no choice about adopting the new system, there was no question of reverting to the old.

The two anecdotes lead to the same question, however. Why is it that both protagonists and antagonists put *so much* store on the tools? Of course they are important and necessary, but surely they can't determine the quality of performance, in either direction. As I think about this, I have to admit that more than once I have bought a set of new golf clubs in hope that just one more change of equipment will reduce my handicap, and looking at it that way, I can understand the view of the technically minded enthusiast. And being a fairly incompetent golfer, I can see how easy it is to blame the tools when things don't go too well. Even so, being rational—while knowing there is likely to be some real effect when moving from a very primitive tool to a really sophisticated one—we know that when we upgrade only marginally, the effects of changing the tool are likely to be far less than ei-

ther taking the time to practice—if you are a golfer—or taking more time to design your course and perhaps some advice and training if you are a beginner in the distance learning environment. It is a pity that administrators usually find it enough of a challenge to spend time and money on upgrading the tools rather than tackle the more difficult human resource management problems that would have a far bigger impact on program quality. In my recent experience, a fraction of the money spent on changing the tool could have bought my colleagues and me enough professional video production capacity—to just to take one possibility—that would significantly upgrade our courses, even though delivered on the older platform.

But what can we suggest to the professor who wants to facilitate constructivist learning at a distance? Here are a few tips based on my own experience:

- Bearing in mind that every teaching-learning transaction has to have both structure and dialogue, I think it is true that beginning distance teachers, designers, and administrators may indeed overemphasize the former at the expense of the latter. This is nothing to do with technology but is an understandable response to the challenge of sending messages out into an environment that is far less controllable than the classroom. Having a tight structure of objectives, content, learner activities, and evaluation all give the educator a sense of security and control that a more open, dialogic program does not. (And this is not necessarily a bad thing. If there is to be error in the direction of too much structure or too much dialogue, the beginner would be advised to err in the direction of too much structure. If you set out with the ultimate intention of facilitating the higher degree of dialogue that is needed for learners to construct knowledge, having too much structure that can be relaxed later is preferable to the cost of having too little, the cost being confused, possibly angry, and disappointed students who cannot be recovered.) The basic principle in setting up a constructivist learning environment is to establish the minimum structure that allows the maximum degree of dialogue between the students. What this right balance of structure and dialogue is depends on the educational sophistication of the students and the subject to be learned. In the case of my own students, I can provide a relatively low level of structure containing a relatively low content component. At the design phase, the course is organized in terms of student time, objectives, and required products, and contains pointers to a selection of resources for use in their individual and group knowledge-making. Instead of investing my creativity in telling them a lot in advance of each unit of study, I try to be especially creative in formulating questions for discus-

sion and for individual and group research. It is the pursuit of answers to the questions that I create that provides the minimum structure for their personal and collective creation of knowledge.

- To achieve constructivist learning, we want to create learning communities. The learning community is one in which students build knowledge together; they also support each other emotionally and in practical ways. With about twenty adult learners in my course, the breadth and depth of knowledge that is available, if I am able to release and channel it, is enormous. Having taught the same course year after year, it is intriguing to see the rich variety of data produced by each cohort to the same question. For example, an “industrial” approach might require the instructor to summarize the history of distance education across the country and test the students to see if they “know” it. Instead of telling them, though, one can require, as a week’s assignment, research to summarize the history of the student’s state, or professional training field, or their educational agency—and by having each individual share this mini-research with their peers, we build up a unique view of the history represented by that particular cohort of students. Every time the question is answered, it represents the processing of information into the knowledge of that particular group.

- Developing a learning community is not an end in itself. Sometimes I think some adult educators sound rather romantic in their ideas of the beauty of learning as a community activity. Mine is a pragmatic and utilitarian view. The better the sense of community, the better the quality is likely to be of the knowledge that is generated and the higher the quality of the learning experience for each of them. There are a few techniques that help in developing the learning community. First I, the instructor, have to make it clear to the students what I mean by learning community and what I expect of each of them in that regard, and why I consider this important. At the beginning of the course I introduce the idea of their “community of learning” and set some ground rules for membership. For example, I design my course so that it requires a weekly or biweekly submission to a bulletin board from every participant. I also require every participant to contribute a substantial expansion or development of the posting of at least two fellow learners. My instruction is that each addition has to be “a significant addition to the community’s pool of knowledge.” Conversational comments, though not unimportant, are not considered sufficient to meet this requirement. In higher education we have the benefit of using external motivators, that is, various forms of formative evaluation as well as a final grade. There is some research as well as anecdotal evidence to show that students are less likely to make knowledge in the way we are discussing if it is entirely a

voluntary activity. Because I consider participation in making knowledge to be essential, I make this a criterion for graduating from the class and give a weekly score as part of the formative assessment of each student's performance to be included in calculating a final grade.

- Even more than in other learning situations, if one is to encourage the kind of risk-taking that is needed for constructing knowledge, it is important to alleviate as far as possible anxiety about the process. The anxiety that accompanies this kind of activity in face-to-face settings tends to be exacerbated by distance. I therefore recommend paying particular attention to the *tone* of written communications, both those from the instructor to students and between students. From the instructor's side, it is not only important to avoid expressions that may appear threatening, discouraging, or disrespectful, which would of course increase natural anxiety, but I think it is necessary to go further and explicitly assure individual learners and the group, from time to time, regarding their successful progress and to provide some words of comfort and reassurance when a student hits a rough patch. It seems rather obvious that one would want to do this, but many instructors are so focused on the presentation of content that they lose sight of the humans who are the real subjects of their work. Don't worry too much about new tools, I would tell the beginning distance educator; success is more likely to come from developing the attributes of empathy.

- As well as attending to learner-instructor interaction, the instructor has to monitor both the content and the tone of dialogue among and between learners. Having taught online since the early 1990s (on Bitnet with a 2400 baud modem!), I can testify that the vast majority of students are generous and considerate in their interaction with their fellows. I have heard of quarrels and insults taking place in online classes but have never experienced this myself. I recognize that I am privileged in the students I work with, but nevertheless I believe that to a large extent, when there are discourteous or acrimonious exchanges between students, it is a clear condemnation of the instructor's failure on the one hand of establishing the right climate and on the other of failure to intervene appropriately at early signs of trouble. Even worse, there are instructors who enjoy classroom confrontations and think it is appropriate to emulate that kind of exchange at a distance. Even if it is permissible in the classroom (and I think that is questionable), it is very dangerous behavior with distant learners—some of whom feel sufficiently protected by distance to engage with less restraint than they would show in the physical presence of an instructor. Insisting that the community discussions are respectful, considerate, and courteous makes the discussions not only more pleasant but also more productive.

- A valuable key to helping students construct knowledge is that instructors restrain themselves from jumping too often into the online exchanges between students. Students will quickly discover if they can expect the instructor to drive the discussion, and this inhibits their taking ownership of both process and content. From time to time, as instructor, I may correct a substantive error, if no student does so, or give a word of encouragement or praise, but the test for me is similar to that of the students, which is whether an intervention is likely to add significantly to *their* generation of knowledge. Generally I find that the lighter the instructor's touch, the more energy the students will invest. I prefer to invest my creativity *after* they have made their best effort to make knowledge, in reflecting back to them the significance of what they have created and sometimes what I think they failed to create. My standard practice is to collate, synthesize, and summarize the themes that emerge in each week of online discussion. Thus, the typical structure of a week's study consists of a modest preliminary introduction to the topic of the week, usually accompanied by a required reading and a question that demands research and reflection by every individual, which becomes the basis of a dialogue by all members of the community. At the end of the week I provide a summary essay, telling the students what it is that they have created together in response to my opening question. Students *do* achieve *my* learning objectives, but every group arrives there in a different way through sharing a set of experiences and examples that are derived from (and on my part induced from) each participant's prior experience melded in a unique mixture that is the knowledge created by that particular community.

These are only a few points about implementing a constructivist approach at a distance. From both the instructor's and the students' perspective, the extent to which they have had a satisfactory constructivist learning experience has had little to do with the communication tools but has been directly relative to the structure of the courses and the dialogue the instructor has been able to set up and then facilitate.

For readers who want to look into this issue further, I recommend starting with articles by Dede (1996) and by Garrison and Anderson (1999).

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References

- Dede, C. 1996. The evolution of distance education: Emerging technologies and distributed learning. *The American Journal of Distance Education* 10 (2): 4–36.
- Garrison, D. R., and T. D. Anderson. 1999. Avoiding the industrialization of research universities: Big and little distance education. *The American Journal of Distance Education* 13 (2): 48–63.

Award for Handbook of Distance Education

The Handbook of Distance Education, edited by Michael Grahame Moore and W. Anderson, published by Lawrence Erlbaum Associates, Inc., has been awarded the Charles E. Wedemeyer Award for the outstanding book of 2003 by the Distance Learning Community of Practice of the University Continuing Education Association. The judges stated, “The Handbook has both breadth and depth, with the best thinking of the most noted practitioners in distance education framed in an inspired format and structure.” The award was presented at the annual conference of the UCEA in San Antonio, Texas, April 14–17, 2004.