

Situated Learning Designs

by Som Naidu

Learning takes place all the time when we are up and about. All kinds of learning takes place when we are engaged in our daily routines, and even when we are doing nothing meaningful or too strenuous. Some of us would argue that learning is a natural process and that learners are self-organizing entities. This means that we are able to learn from our own and others' experiences and mistakes.

Does this mean that we can leave learning to chance? In some cases we may, but in most organized educational settings, I believe that we **cannot** afford to leave learning to a chance occurrence. Learning is a complex phenomenon, a time consuming and costly activity. In order to produce the best results, with minimal resources and the shortest possible time, we need to carefully design and manage our learning activities.

Yet our educational experiences are littered with failed and poor learning and teaching experiences that have produced nothing but boredom and agony for our students as well as the teachers. Many of us will be able to recall the meaningless bits and pieces of data, facts and procedures that we were required to learn in our primary and high schools, and also in the tertiary institutions that we may have attended.

I have often felt, and regretted that I was required to spend too much valuable time in the primary and secondary schools and not learning enough in order to be able to take advantage of the opportunities that lay ahead of me. In retrospect and now armed with the knowledge of human development and learning, I believe that all that I was required to learn during the eight years of my primary education and four years of my secondary school education could have been learned in half that time. The remainder of the time could have been used in learning several more languages and perhaps a lot more.

I believe that my primary education and my high school education failed me and many like me. This was due mainly because our educators didn't think carefully enough about what we needed to know, why we needed to know it, and how we were going to learn it. It is a wonder how we survived the system despite its *faux pas*.

Careful attention to what we need to know, why we need to know it, and how we are going to learn it is at the heart of learning and instructional design. It is too important a matter to be left to chance.

Fortunately for us there is increasing interest and awareness among contemporary educators that learning should be meaningful, and also that it should be an enjoyable experience. We are also recognizing that *learning is most efficient and effective when we are engaged in learning by doing something meaningful within a real or an authentic situation or context*. This context

provides the "*anchor*" which is sorely needed to literally "hold down" the facts, procedures and principles that we need to learn.

Learning that is contextualized and meaningful has the best chances for lasting impact. Learning designs that can support this kind of learning experience are called "situated learning designs". These learning designs place learners in authentic situations within which they are required to resolve real world problems. In so doing they must critically reflect on numerous intervening variables in order to resolve the problem at hand. In order to be able to do this, they have the support of teachers, technologies, parents and many other agents or stakeholders who are there to provide learners with the essential scaffolds.

Common examples of situated learning designs are *Scenario-Based Learning; Problem-Based Learning; Case Study-Based Learning; and Design-Based Learning*. These learning designs draw upon age-old constructivist principles of learning which promotes the idea that knowledge and expertise is developed through engagement, interaction, and critical reflection by learners and teachers.

Developing situated learning designs

Carefully crafted situated learning designs begin with the identification of the *key competencies* that learners must acquire from the designed learning experience. These competencies will lead to the articulation of the *learning outcomes* for the learners. The learning outcomes should help the identification of *typical events* in the life of a person who has accomplished these outcomes.

The next step in the process is to identify the *main steps or processes* that one might take or follow to work through these, and similar sorts of events. We are now ready to develop a scenario or context that will have the richness and variety that will offer scope for the foregoing steps and/or processes. In light of the intended learning outcomes, we are now able to develop the *learning tasks and assessment activities* that learners will be required to complete within the context of this scenario. This will include the selection or development of a range of learning resources and opportunities for *collaborative learning and teaching, and feedback and remediation*.

Students' and teachers' roles in situated learning designs

Situated learning designs promote a "learning-centered" focus, which is a slightly different concept from the widely known "learner-centered" focus. At the heart of a learning-centered environment is the learning experience. The student, obviously a very important part of this environment, is an agent in the designed learning experience. Other relevant agents in the environment include other students, teachers, tutors, information resources staff, parents, siblings and numerous other stakeholders.

In this scenario, learning and teaching need not be confined to any time, place or pace. With the help of various kinds of information and communications technologies, learning becomes an ongoing experience within which the various learning agents are operating continuously in a *distributed educational setting*. The learning scenario, problem or case and the designed learning experiences including learning activities and assessment tasks provide learners the structure and

scaffolding they need to pace their learning activities.

Teachers are no longer the sole source of subject matter content. The relevant content may be found in a variety of locations such as in books, computers, and other devices including DVDs, CDs etc. Teachers, tutors and other support staff serve as resources in an *information rich learning-centered environment*. To the learners, they are all critical to the conduct of their learning activities. They serve to point learners in the right direction, and help them sift through essential and non-essential information.

A paradigm shift in teaching and learning

The foundations of situated learning designs are not new. Most of the key principles which include, learning by doing, experiential learning, problem-solving, critical reflection in and upon action, and collaborative learning are tried and tested methods and have been part of our educational schema for a very long time. What is new and challenging about these principles and their application is how they are put together into operational models in different kinds of educational settings and for different kinds of subject matter.

Models of situated learning designs offer inroads into how we can begin to integrate the basic principles of good teaching and learning practices into sound operational models. This requires not only a deeper understanding of learning and cognition, but also plenty of courage and conviction to look beyond our own prior experiences, however successful these might have been in producing outstanding graduates in the past.

The natural tendency for many educators is to say why do we need to bother? Haven't we produced the best scientists and scholars already with our existing practices? Why change something that is already working well? Why fix it, if it is not broken?

My response to that is that, perhaps in those cases where we have been successful, we may have done the right thing. Not all of our current teaching and learning practices are poorly conceived. So let us not throw out the "baby with the bathwater". Lets us closely examine our current practices, and let us keep those that are working well and change those that are not working so well.

Lets us begin to look at what we teach, why we teach it and how we teach it. Let us see if we can do better. My hunch is that we will find more often than not, we can do better. In the end education should be a lot more than about learning the facts, procedures and principles, or the science, history or geography of this and that. The facts, principles and procedures are important of course -- *what is critical is how they are taught and learned and why they are taught and learned?* These are the questions that ought to preoccupy the minds and energies of our best and brightest educators.

Key websites on Situated Learning Designs

http://en.wikipedia.org/wiki/Situated_learning
<http://coe.sdsu.edu/eet/articles/sitlrning/index.htm>

Select bibliography on Situated Learning Designs

Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, January-February, 32-42.

Cognition and Technology Group at Vanderbilt (1990, August-September). Anchored instruction and its relationship to situated cognition. *Educational Researcher*, 19(6), 2-10.

Cognition and Technology Group at Vanderbilt (1990, May). Technology and the design of generative learning environments. *Educational Technology*, 31(5), 34-40.

Dewey, J. (1933). *How We Think: A restatement of the relation of reflective thinking to the educative process*. Boston: Heath.

Lave, J., & Wenger, E. (1991). *Situated Learning: Legitimate peripheral participation*. New York: Cambridge University Press.

McLellan, H. (Ed.). (1996). *Situated learning perspectives*. Educational Technology Publications, NJ: Englewood Cliffs.

Naidu, S. (2003). *E-Learning: A guidebook of principles, procedures and practices*. New Delhi, India: Commonwealth Educational Media Center for Asia (CEMCA), and the Commonwealth of Learning.

Naidu, S. (2004). Learning design as an indicator of quality in teacher education. In K. Rama & M. Menon (Eds.) (2004) *Innovations in teacher education-International practices for quality assurance* (pp. 65-76) Bangalore: NAAC.

Pea, R. (2004). The social and technological dimensions of scaffolding and related theoretical concepts for learning, education, and human activity. *The Journal of Learning Sciences: Special Issue on Scaffolding*, 13(3), 423-451.

Reiser, B. J. (2004). Scaffolding complex learning: The mechanisms of supporting and problematizing student work. *The Journal of Learning Sciences: Special Issue on Scaffolding*, 13(3), 273-304.

Schank, R. C. (1990). *Tell me a story*. Evanston, Illinois: Northwestern University Press.

Dr. Som Naidu is Associate Professor in Educational Technology at The University of Melbourne in Victoria, Australia, 3010.

Dr. Naidu is Executive Editor of the international journal "Distance Education" [<http://www.tandf.co.uk/journals/carfax/01587919.html>], and Co-series Editor of the RoutledgeFalmer book series on "Open and Flexible Learning" published by the Taylor and Francis Group [<http://www.routledge.com/education>].

He is also Adjunct Associate Professor in the Master of Distance Education program, in the Graduate School of Management & Technology, University of Maryland University College, USA. His work on "situated learning designs" is being adopted by several programs. These include the Master of Arts in Teacher Education (International) program of The Open University of Sri Lanka, and The University of Trinidad and Tobago, the Green Teacher Program of the Center for Environment Education, Ahmedabad, India and the e-Bachelor of Education program of I-CONSENT (the Indian Consortium for Educational Transformation), India.

Last Updated (May 05, 2008 at 12:51 PM)