

LEARNING MATTERS at LINGNAN

For internal circulation only

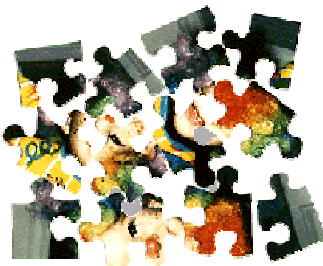


10/99

22 November 1999

From the Editor:

Learning Matters at Lingnan are short papers that aim to promote a dialogue on teaching and learning. I encourage all staff to consider this as a vehicle for sharing thoughts on educational issues as they might affect us at the University. If you feel you have something which might be appropriate for inclusion in an issue of this publication, then please forward it to the TLC. I would be delighted if staff (and not only academic staff) from outside the Teaching and Learning Centre were to be prominent or even occasional contributors.



Constructivism: Implications for Teaching and Learning

Constructivism is a radical departure in thought about the nature of knowing, hence of learning and thus of teaching. To facilitate understanding of the constructivist view and its implications, it is compared to a familiar mental model of learning held by many: the objectivist epistemology.

Objectivism vs Constructivism

The constructivist perspective describes learning as a change in meaning constructed from experience. Constructivists believe that knowledge and truth are constructed by people and therefore do not exist outside the human mind. This is radically different from what objectivism conceives learning to be. To the objectivists, knowledge and truth exist outside the mind of the individual and are therefore objective. 'Learners are told about the world and are expected to replicate its content and structure in their thinking' (Jonassen, 1991).

The role of education in the objectivist view is therefore to help students learn about the real world. It is asserted that there is a particular body of knowledge that needs to be transmitted to a learner. Learning is thus viewed as the acquisition and accumulation of a finite set of skills and facts.

Contrary to these notions about learning and knowing is the constructivist's view of learning being 'personal' and not purely 'objective'. Von Glaserfeld (1984) has written:

"...learners construct understanding. They do not simply mirror and reflect what they are told or what they read. Learners look for meaning and will try to find regularity and order in the events of the world even in the absence of full or complete information."

Constructivism emphasizes the construction of knowledge while objectivism concerns mainly with the object of knowing. It is the fundamental difference about knowledge and learning that departs the two in terms of both philosophy and implications for the design of instruction.

P.T.O.



Implications for Teaching

Central to the tenet of constructivism is that learning is an active process. Information may be imposed, but understanding cannot be, for it must come from within. Constructivism requires a teacher to act as a facilitator whose main function is to help students become active participants in their learning and make meaningful connections between prior knowledge, new knowledge, and the processes involved in learning.

Brooks and Brooks (1993) summarize a large segment of the literature on descriptions of 'constructivist teachers'. They conceive of a constructivist teacher as someone who will:

- encourage and accept student autonomy and initiative;
- use a wide variety of materials, including raw data, primary sources, and interactive materials and encourage students to use them;
- inquire about students' understandings of concepts before sharing his/her own understanding of those concepts;
- encourage students to engage in dialogue with the teacher and with one another;
- encourage student inquiry by asking thoughtful, open-ended questions and encourage students to ask questions to each other and seek elaboration of students' initial responses;
- engage students in experiences that show contradictions to initial understandings and then encourage discussion;
- provide time for students to construct relationships and create metaphors;
- assess students' understanding through application and performance of open-structured tasks.

Hence, from a constructivist perspective, the primary responsibility of the teacher is to create and maintain a collaborative problem-solving environment, where students are allowed to construct their own knowledge, and the teacher acts as a facilitator and guide.

The constructivist propositions outlined above suggest a set of instructional principles that can guide the practice of teaching and the design of learning environments. It is important that instruction must do more than merely accommodate the constructivist perspectives, it should also support the creation of powerful learning environments that optimize the value of the underlying epistemological principles.

Maureen Tam

Conclusion

References:

1. Jonassen, D.H. (1991) Objectivism versus constructivism: do we need a new philosophical paradigm? *Journal of Education Research*, 39 (3), 5-14.
2. Von Glaserfeld, E. (1984) Radical constructivism. In P. Watzlawick (Ed.), *The Invented Reality*. Cambridge, MA: Harvard University Press.
3. Brooks, J.G. and Brooks, M.G. (1993) *In Search of Understanding: the Case for Constructivist Classrooms*. Alexandria, VA: American Society for Curriculum Development.

