

Pedagogy on the line: Identifying and closing the missing links

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Introduction

First the good news: in the years ahead, the declining cost of computation will make digital technologies, accessible to nearly everyone in all parts of the world, from inner-city neighborhoods in the United States to rural villages in developing nations. These new technologies have the potential to fundamentally transform how and what people learn throughout their lives. Just as advances in biotechnologies made possible the “green revolution” in agriculture, new digital technologies make possible a “learning revolution” in education.

Now, the bad news: while the new digital technologies make a learning revolution possible, they certainly do not guarantee it. Early results are not encouraging. In most places where new technologies are being used in education today, the technologies are used simply to reinforce outmoded approaches to learning. Even as scientific and technological advances are transforming agriculture, medicine, and industry, ideas about and approaches to teaching and learning remain largely unchanged.

(Resnick 2002:32)

This is a commonly held view shared by experienced enthusiasts and informed critics of online learning. What is more, taken at face value, it is true. However, observations of this kind usually reflect one or two poor practices. The first is the transfer from a classroom setting to an online environment of learning materials developed for the still dominant knowledge transmission approach; the second, even more disappointing, is the replacement of pedagogically sound teaching with inferior online materials. In the latter context, we often hear the phrase ‘we must radically change our teaching approach’. But is this in fact true? Are there significant differences between sound online and face-to-face pedagogy? Are there new proven online learning theories we can draw on? Of course, there is the relatively new field of instructional design to inform our decisions (Briggs 1977, Johnson & Foa 1989 and Gagné, Briggs & Wager 1992) but, just as in classroom settings, a large proportion of current materials are designed by the course providers and Berge’s (1999:1) point is very important here:

How instruction is designed is based largely on the designer’s interpretation of the world, filtered through his or her instructional philosophy. It is the instructional design, not the delivery system, that frequently sets the limits on the quality of instruction. The balance of the mix of various interpersonal interactions is a result of what the designer values.

The practice of experienced distance education institutions leaving course design in the hands of professional teams, including experts in content, pedagogy, instructional design

and graphic design, makes a great deal of sense. But even then different teams will produce radically different courses depending on which educational theory they favour. Traditional computer-based learning has been designed with reference to theories developed by Ausubel (1963), Bandura (1986) and Gagné (1985) and much of today's pedagogy still adheres to Gagné's five categories of learning - intellectual skills, cognitive strategies, verbal information, motor skills, and attitudes (Doiron 2001). While there are notable exceptions, the majority of current online materials are based on this largely behaviourist approach and a view of learning as predominantly concerned with information processing.

Gagné's events of instruction include gaining attention, informing learners of the objective, stimulating recall of prior learning, presenting the new material (stimulus), providing learning guidance, eliciting performance, providing feedback, assessing performance, and enhancing retention and transfer.

Doiron (2001:2)

During the last decades there has been a move away from theories favouring behaviorist, individual cognitive approaches to those concerned with sociocultural constructivist ones, engaging students in problem solving, situated learning and co-operative activities. Interestingly this move does not reflect radically new philosophies in teaching but sees us 'marching backwards into the future', to borrow a phrase from Paulsen (1995), drawing inspiration from theorists such as Vygotsky (1978), Dewey (1963) and Leont'ev (1978) who emphasise interpersonal, experiential, process-oriented learning. It is important, though, to point out that the plethora of learning theories is so varied, and in some cases overlapping, that it would be naïve to suggest a black and white divide into strictly opposing schools of thought (see Duffy & Cunningham, 1996 and Goodyear, 2002). Perhaps the most significant, yet still fairly simplistic difference between exponents of Gagné's approach and those of Vygotsky is that the former focus on the individual in the group, believing that cognition occurs in the head of the individual, whereas the latter emphasise the socially and culturally situated context of cognition, in which knowledge is constructed in shared endeavours (Duffy & Cunningham 1996). Generally, though, the fundamental questions to ask must surely be 'what are the principles of good practice in teaching?' and 'can all of them be realised online?'

Teaching must be grounded to basic principles of good practice in [...] education. These principles include encouraging contacts between students and faculty, developing reciprocity and co-operation among students, encouraging active learning, giving prompt feedback, emphasising time on task, communicating high expectations, and respecting diverse talents and ways of learning. (Chickering and Gamson, 1987: 3)

While these principles were realisable easily enough in face to face settings, honouring them in traditional distance education posed great challenges, especially for dedicated language teachers. The new technologies, however, provide the capabilities for doing all of this successfully, and in some instances offer the potential to improve even on best practice classroom teaching (Felix 2002a). The presence of authentic information gaps

and the acute need for meaningful communication in distance education naturally shape the teaching approach towards a communicative model, and excellent teachers have always supplemented a largely text-based environment with personal communications conducted by telephone or through audio- and video-conferences. The advent of email and increasingly sophisticated interactive tools, including voiced chats and virtual worlds, have given teachers a much wider scope in which to engage students in best practice language learning, including facilitating communication with native speakers, creating real-life tasks carried out co-operatively in authentic settings, and addressing the large differences in students' backgrounds, interests, needs, learning strategies and abilities that are to be found in today's multicultural classrooms. The new technologies also offer more sophisticated and creative opportunities for the provision of timely feedback, although artificial intelligence capabilities have not advanced significantly enough to enable us to claim that automated versions alone would be sufficient in a course offered fully online.

Other important elements in good teaching, unfailingly cited by students of all ages as the characteristics of the teacher who had the greatest influence on them, are enthusiasm for the subject and humour. Sustaining these convincingly online is perhaps the greatest challenge but certainly not impossible. This author was greatly amused by a physics course entitled *Experimental Errors* (Fallows & Ahmet 1999) which clearly sets expectations way beyond the experience of the ordinary classroom, even though according to the tutor some students complained about poor spelling. Surely good teaching is good teaching in any setting, and a good teacher using a simple tool is likely to be more effective than a poor teacher using a highly sophisticated one, and there is no reason why online learning should not be as enjoyable as classroom equivalents (Hiss 2000).

Current stand-alone online language learning programs have improved tremendously over the last two years, especially through the recognition of the value of constructivist approaches in this environment, and increased interactivity in general. Naturally, teaching fully online adds a dimension which leaves no room for compromises in terms of infrastructure, resources, expertise, support and prerequisites discussed in detail in Felix (2002). This is not the territory for the one-person enthusiast, although there are excellent examples of teachers who have dedicated their entire professional life to this challenge (see *Cyberitalian*). Large commercial enterprises such as *Global English* have invested heavily in interactivity online, always at the cutting edge of technology (including voice-recognition software) and employing 24-hour tutor support through a chat site. Generally, though, three important elements are still handled poorly in such offerings. These are (1) *providing personalised and meaningful feedback*, (2) *creating a sense of community and belonging*, and (3) *catering for the development of oral language skills*. This chapter looks at the fundamental pedagogical issues in the context of these important elements, and discusses innovative approaches for addressing the problems. It discusses innovative types of feedback structures and examines ways of personalising and humanising online learning in a systematic and holistic manner, that will permeate the total student experience.

Websites

Cyberitalian <http://www.cyberitalian.com/>

French@Austin <http://www.lamc.utexas.edu/fr/home.html>

Global English <http://www.globalenglish.com/>

Hilde's Hexenwelt under construction

Hot Potatoes <http://web.uvic.ca/hrd/hotpot/>

Lina und Leo <http://www.goethe.de/z/50/linaleo/start2.htm>

Quia <http://www.quia.com/web/>

Spanish Language Exercises <http://mid.ursinus.edu/~jarana/Ejercicios/>

Traveler <http://www.digitalspace.com/traveler/>

Wimba <http://www.wimba.com/>

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