

# Quality @ a distance includes preservice teachers

## *One democratic approach*

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**Abstract:** As virtual high schools proliferate, the issue of quality in education a distance must include a focus on high schools and the training of teachers to teach in them. The authors of this paper designed a novel approach to a course that aims to introduce new and practising teachers to distance education so they can develop a holistic appreciation of quality education at a distance.

**Key words:** teacher education, virtual high schools

## 1. INTRODUCTION

There is no doubt that distance education is growing and that this includes learners and teachers within and beyond high schools in many countries. In the USA the number of 'virtual' high schools is now greater than the number of states and the participation of students enrolled in virtual high schools is growing rapidly in all states. This context provides good reason to ensure that quality at a distance includes high schools and preservice teacher education.

Research into effective high schools provides indicators of quality. Five characteristics identified are:

1. Students receive adult support and guidance from the same adults over sustained periods of time.
2. Students have enriched opportunities to learn, perform, and be recognized.
3. All efforts are focused on a clear, powerful educational agenda.
4. Students, staff, and parents share responsibility for student success.
5. The school is engaged in a culture of continuous improvement. (Huss, Pfitzenmaer, & Davis, 2002).

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These characteristics apply to all high schools and are seen to be applicable to distance education (DE) for high school students as well (Vail, 2002). In addition, the US NSDC (National Staff Development Council) has developed guidelines for ensuring quality e-learning for educators. Among the recommendations, they highlight the importance of developing online pedagogy with theoretical grounding. Their handbook advocates the development of learning communities characterized by active and collaborative learning promoting democratic education and good citizenship (E-Learning for Educators, 2001).

In other words, quality for virtual high schools includes the whole educational experience locally and at a distance, not simply the learning process within individual DE courses. Educators in traditional high schools need professional development to understand DE in order to support their students because, “when teachers have access to high quality ... staff development, their students’ academic achievement increases” (E-Learning for Educators, 2001, pp. IV-3). Such professional development experience can become part of the teacher education program. One such course is discussed in this paper. It is preceded by a discussion on the challenges in developing quality @ a distance for virtual high schools and concludes with a discussion of preliminary findings from research undertaken by the instructors of this course.

## **2. CHALLENGES FOR QUALITY @ A DISTANCE**

There are significant challenges to the development of quality preparation of teachers for high school distance education (DE) and to support students taking DE courses from other teachers. The authors have outlined below some of the challenges they have experienced as instructors of such a distance education course:

### **2.1 Goals of Distance Education**

Historically speaking, the goal of DE has been to bring education to the masses with little consideration given to pedagogy. The pedagogical model followed by the early generations of distance learning (correspondence courses) was characterized by relaying or transmitting knowledge from teacher to students using one-to-many communication. DE claimed to promote democracy, justifiably to some extent, based on its ability to make education easily affordable and accessible to the common person. Later,

technology-based systems (analog and digital technologies such as audio, video) became popular, and DE evolved from a transmissive mode to a more interactive mode. However, DE remained on the margins and continued to be perceived as an 'alternative' form of education, defined and compared in relation to traditional modes of education. Today, flexible, interactive media and online pedagogy stressing student-centred learning have made DE more personalized with less industrialized approaches. Integrated learning environments are commonly used for web-enhanced learning and teaching, often blending more traditional face to face events with DE (Kearsley, 2000). For example, leading organizations such as the UK Open University provide significant online study support in addition to online courses, local study groups, and summer schools. Yet, these programs continue to be regarded with suspicion and reluctance. Ironically, the intense focus on personalization and flexibility has accentuated 'just-for-me' learning further widening digital and social divides.

## 2.2 Distance education pedagogy

Most distance learning in the USA and UK has been developed for adults, who are professionals and/or college students. Pedagogic design of courses for adults encourages students to take responsibility for their own learning to fit it into their professional and personal lives. However, the approach for teaching high school students should not be the same. It is particularly important that quality education retain a view of each high school student as a member of the educational community(s) to which they belong and to support their growth to become responsible members of our democratic society.

Quality education for high schools should include a humanistic approach such as that promoted by John Dewey and Paulo Freire. Dewey (1938) declared that "the educative process ... [should be] understood in terms of the active participle, *growing* ... growing as developing, not only physically, but intellectually and morally, ..." (p. 36). Similar beliefs were shared by Freire (1998), "I have never been able to separate the teaching of content from the ethical education of the students, as if they were disconnected moments" (p. 87). It is to be noted, however, that the principles of democracy as interpreted by the authors of this paper are best expressed in Drucilla Cornell's call for 'equivalent rights' instead of equal rights. In a truly democratic society "rights should be based on equivalencies, what is best for the well-being of all citizens given that differences make a difference" (cited in Bloom, 1998, p. 43). Ideally, only education that integrates "transcendent universalism" with "separatist particularism" (Gutman, 1995) may lay claim to democratic ideals.

Today, DE is faced with a paradox. With its drive for effective personalised education it has created a model that successfully blends efficiency with learner independence, but at the cost of mutual interdependency – a condition necessary to democratic education. The pendulum seems to have swung from ‘education for everyone’ to ‘just-for-me’ education.

### **2.3 Teacher-centric design of integrated learning environments**

The design of current managed learning environments also obstructs democratic learning due to software designers’ assumption of the need for control by the instructor of all (or the majority of) activities and content. The management system rarely facilitates the teacher’s need to encourage students to volunteer their knowledge and support for the class and community. Similarly, educators who are not part of the class are virtually excluded, although special arrangements can be put in place to include them.

Quality distance education is much more than ‘production’ whereby an instructor uses tools such as a managed learning environment to process naïve students into those who master the skills and the content. The framework provided by activity theory clarifies for us that ‘production’ is only one of the four subsystems of DE. Activity theory describes the interactions between the learner, the tools, the socio-cultural rules, the community, and the distribution of the learning processes (see Jonassen, 2000 for a discussion of activity theory as applied to the design of DE environments). All four systems and a holistic view of the activity of DE are important for quality @ a distance.

These challenges of DE prompted the authors of this paper to design a novel approach to a course that aims to introduce new and practising teachers to DE so that their misconceptions are dispelled and they can develop a holistic appreciation of quality education at a distance.

## **3. A COURSE TO PREPARE TEACHERS FOR DE**

Our approach to the design of our course on the principles and practices of flexible and distance education to a mixed group of preservice and graduate students is unusual. We have created a relatively ‘flat’ hierarchy where students, instructors, and outside experts are partners in the learning process. Students, along with the instructors (the authors), co-construct their knowledge and archived student projects become part of the course content. All participants collaborate in a non-threatening, open environment.

One major aspect of this course is its case-based and project-based approach. Studies have shown that a case-based approach promotes critical thinking, transfer of knowledge, and development of metacognitive skills. (Dods, 1997; Alvarez, 1993; Merseth, 1991). It requires group work characterized by positive interdependence (the failure of one group member affects the performance of others) and individual accountability (Slavin, 1995). Such an approach encourages democratic learning since it 'opens' up the learning environment for individual's positive growth through community involvement and development.

In this course students are required to study contrasting cases of distance learning, with two cases studied in depth. One case adopts a commonly used web-based approach that guides individual learners through content with traditional tests of knowledge, both self-assessment and examination by the instructor, whereas the other develops a learning community distributed across time and space. Students in our course work in groups, and two-thirds of the course is held online using the university's web-based learning environment WebCT™.

In addition, these student groups undertake development of authentic distance education experience (identified collaboratively by the instructors and the students). Students are required to develop a reflective approach during the course and make their misconceptions and dilemmas explicit while learning and supporting flexible and distance learning (with due reference to the literature). This reflexive approach is modeled by the teachers of this course, who uncover their dilemmas in the design and 'delivery' of their course. The class also reflects on their own course experience as their final case study.

The course thus invokes teaching practices characterized by a social and cognitive constructivist philosophy. Students are required to reflect on their learning while going through the learning process. Vygotskian scaffolded learning helps students move from a teacher-dependent mode to self-regulation and self-autonomy. Student learning becomes localized and situated as they engage in their final project developing their own authentic case of DE.

The course has prepared all students to reflect on DE. In contrast to traditional courses on DE, these students are also emerging practitioners and have supported development of DE, including preparations for the Iowa Virtual Academy.

#### **4. RESEARCH AND PRELIMINARY FINDINGS**

The research approach accompanying this course takes iterative cycles of action research, in which each run of the course becomes the next cycle of the research. Data gathered from each cycle includes notes from the design, delivery and evaluation phases, including documents, online interaction and surveys. Dilemma analysis has been used to uncover points of stress indicated within the discourse and this is triangulated with other data sources. Our findings so far indicate that there is some way to go before we can model democratic distance education with support from the software.

One instance of a dilemma due to software design that has recently been analysed (in the fourth cycle of this action research) will now be discussed in detail. The chosen dilemma related to the assessment process, which we hope will provide a rich example of the challenges of democratic learning both in traditional classrooms and those accessed from a distance. The incident analysed is the third assessment point of six in the course and is approximately midway in the 30 hour course. Students groups were required to compare and contrast the two cases of DE noted above and to provide advice relating to interactivity and flexibility to the instructors of these authentic and ongoing cases. The assessed piece was a set of web pages developed by each group of 2-4 students as a presentation, in which the group was also required to describe individual roles and to use literature supporting their critiques and recommendations. These web pages were then presented online to the class.

The presentation feature in WebCT is an apparently versatile and democratic 'tool' in so far that it can be used by students as their private workspace as well as a public display area. However, access does not necessarily translate into participation and mutual empowerment. In order for the participants to help each other democratically they have to move into another area, namely, the discussion forum, to add their comments. This not only breaks up the visual learning space but also the communication. The software, in its current state, does not permit posting of comments directly on the presentations page and thus inhibits spontaneous, direct, open, and honest participation. This disconnect was acutely felt by the instructors while assessing student work; they were unable to communicate to the student groups as equal partners and to the class in a way that aligned with democratic principles. One of the instructors worked around this challenge through the use of 'sticky notes' facility of Adobe Acrobat authoring software, but such workarounds are tedious and discourage interaction and initiative.

This was not the first time that use of WebCT tools had brought the issue of student lack of control into clear focus. In earlier iterations of this course, students felt overwhelmed and lost due to their inability to manage their

discussion forums. Two students' postings in the reflective journal discussion forum illustrate this:

'I don't know if anyone feels the same way but I feel as though I have so many threads to read from other groups that I am overwhelmed ... Maybe for future courses there could be a place that we could go to find out about other groups work.'" (message no. 827, Jun 25, 2001).

"How to make DE interactive enough for the construction of personal knowledge, yet not so overwhelming, as has been pointed out in other posts, that the learner gives up trying to assimilate and understand the new information, ...' (message #247, Jun 4, 2001).

Students were unable to organize the messages to their liking since the software is not designed for user-control, just instructor-control. Moreover, in spite of the controls given to the designer or instructor, qualitative assessment remains particularly problematic and tedious to manage and to record. However, it is an important and integral part of democratic learning. WebCT 'tools' are apparently designed for a simple behavioral approach to teaching and learning, but one that models poor practice for our society.

## **5. CONCLUSION**

Most teacher education for DE seems to be aimed at practising teachers and for post compulsory education. This paper has argued that it is time to design distance learning for integration into preservice teacher education. It described one approach designed successfully to develop reflective practitioners and to challenge students' misconceptions of the role for educators in DE. The paper also provides evidence that a new generation of web environments are urgently required in order to model and facilitate democratic education.

Professional development for quality DE is not simply about teaching a course, experiencing it as a distance learner, or even constructing a new course. Instead quality DE is part of quality education; effective virtual high schools must work hand-in-hand with existing high schools and/or new organizations must be developed to integrate with the whole educational system in keeping with today's societies' needs. Traditional educational systems and related teacher education will need to adopt and adapt both to new pedagogic approaches and to DE technologies for a powerful educational agenda- one of the characteristics of effective high schools

(Huss et al., 2002). It is not enough for teacher education to integrate information technology into teacher education. Teacher education for tomorrow's teachers must widen its context beyond the teacher of the class (wherever that person is) to also include those who provide sustained adult support and guidance. Quality @ a distance includes the preparation of preservice teachers and thus the development of faculty, courses, and organizations of teacher education. The modelling of democratic education must be included, but we have shown that this is difficult with popular software today. Therefore, better environments for web-based learning and teaching are urgently required – we may also be ready for a new generation of distance education technology.

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