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DISTANCE LEARNING

... For Educators, Trainers, and Leaders

In this issue the spotlight is on

Virtual Schooling

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DISTANCE LEARNING

PURPOSE

Distance Learning, an official publication of the United States Distance Learning Association (USDLA), is sponsored by the USDLA, by the Fischler School of Education and Human Services at Nova Southeastern University, and by Information Age Publishing. Distance Learning is published four times a year for leaders, practitioners, and decision makers in the fields of distance learning, e-learning, telecommunications, and related areas. It is a professional magazine with information for those who provide instruction to all types of learners, of all ages, using telecommunications technologies of all types. Articles are written by practitioners for practitioners with the intent of providing usable information and ideas for readers. Articles are accepted from authors with interesting and important information about the effective practice of distance teaching and learning.

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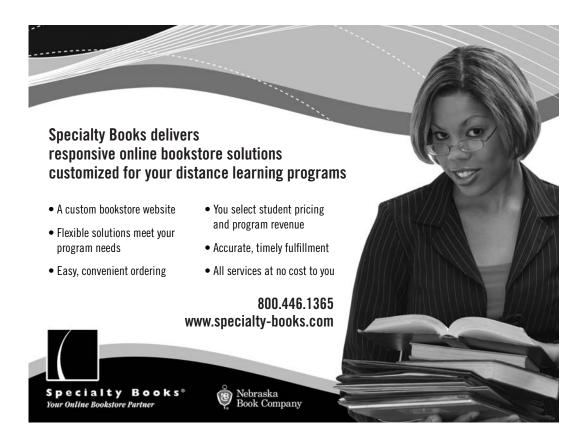
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IN UPCOMING ISSUES

Redefining School From Site to Service

Learning In and From K-12 Online Education

Cathy Cavanaugh and Jace Hargis

INTRODUCTION

Virtual schools began in the mid-1990s based on a place-based school paradigm with elements like electronic classrooms, one teacher per class, and most learning activities occurring within the walled garden of the classroom. This article reviews steps that virtual schools have taken away from basing their programs on a traditional school template to show how they have moved toward a new model for schooling and then recommends further steps in the development of education as a lifespan service. It begins with an outline of what virtual schools research and practice have taught the education community about learning in virtual schools and learning from virtual schools about students, teachers, and courses, using concepts from the theory of social coevolution (Soufolis, 2009).

STUDENTS

Distance education for K-12 learners has a history of more than 100 years of innova-

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tion and problem solving, beginning with correspondence courses for rural students and continuing to the accelerated courses of the 1990s (Clark, 2002). Many virtual schools began with the mission of increasing students' access to courses that were not available in their traditional schools, resulting in a "bimodal" distribution of students taking advanced or remedial courses online (Dickson, 2005). Today's virtual schools have closed the achievement gap for a diverse range of students who succeed in courses that provide them the individual attention and time they need (Liu & Cavanaugh, in press; Keeler & Horney, 2007). We have learned that virtual schooling has the flexibility to fit many individual students and can reach most students with quality instruction through the technical infrastructure outlined in the 2010 National Broadband Plan (Federal Communications Commission, 2010) and proliferating low-cost mobile devices.

Reaching students with flexible courses and pathways through education is necessary for developing the next century's citizens. As a race, we have solved many pressing problems of providing basic needs, and now have a need maximize our resources and technologies, skills that require right-brain dominance: creativity and conceptual strength (Pink, 2006). These skills also emphasize interdisciplinarity and complex interpersonal interactions dependent on social emotional intelligence (Goleman, 1996), which is now assessed in several universities. These strengths can be developed using the powerful social tools and open timelines of online and blended education.

TEACHERS AND COURSES

The best teachers are accomplished scholars and treat teaching as serious intellectual endeavors; they trust and expect more from students and create an environment for which diverse learners can explore, analyze, synthesize and ultimately construct meaning in their own ways; and they have developed a systematic program to assess their own efforts and make appropriate changes (Bain, 2004), all traits that are well-supported and expressed in online environments. Because interaction is the core of online learning, student-centeredness is an essential trait of effective online teachers and facilitators, along with other specific competencies including organization, knowledge of content, understanding of learning and data that informs instruction, and openness to innovative uses of communications technology and media (Beldarrain, 2006; Ferdig, Cavanaugh, DiPietro, Black, & Dawson, 2010; Means, Padilla, DeBarger, & Bakia, 2009). As online education increasingly merges with classroom-based education through blended programs, teachers will need a wider array of knowledge, skills and dispositions; fortunately, professional development and experience in one learning environment tend to strengthen a teacher's effectiveness in other environments (Lowes, 2010). Preparing teachers to teach in online and blended courses is complex and ideally it is integrated throughout our systems of teacher preparation and professional development through apprenticeships and coteaching (Ertmer & Ottenbreit-Leftwich, 2010). However, very few colleges of education and school systems regularly include online and blended teaching in their teacher education programs (Kennedy & Cavanaugh, 2009; Rice, Dawley, Gasell, & Flores, 2008).

Teacher education and professional development in communities of practice are increasingly important as K-12 online course designs evolve away from high structure, linearity, and a focus on the individual accomplishing all course activities, and toward the competency-based, branching, and increasingly social experience afforded by new tools like those described in the annual Horizon Report (New Media Consortium & EDUCAUSE,

2009). Collaborative courses that foster higher-order thinking and twenty-first century skills are now offered in virtual worlds for education. These active, engaging learning environments capitalize on individual learning preferences, differentiated schedules, situated cognition, and a diverse concentration of participants. Second Life (SL) has virtual campuses for hundreds of colleges and growing numbers of secondary schools, and there are dozens of other virtual worlds available, such as Worlds.com, There.com, ActiveWorlds, and a newcomer, Blue Mars.

Effective teacher professional development is ongoing and design-based (Means, 2010) and it is built on job-embedded experimentation (Ertmer & Ottenbreit-Leftwich, 2010). Distributed, large-scale professional development is possible and may be desirable in virtual worlds and other online environments in order to counter the novice online educator's initial tendency to align previous face-to-face practice into their new in-world environment, instead of using the unique attributes of virtual worlds. A common mistake is building virtual classrooms that resemble traditional classrooms with desks and boards, rather than creating a learning culture for constructing new meaning from the many, diverse open-source online resources. Coteaching and team teaching with successful online and in-world educators will speed that development.

Virtual schools have coevolved with technology. An example of this coevolution is blended/hybrid programs, like Fairmont's and Kentucky's, that represent synergistic progress in on-ground and online education programs. The reach of online education into homes and schools represents mainstreaming at the macro level of the innovations described in *Disrupting Class* (Christensen, Horn, & Johnson, 2008). The permeation of online educational resources such as Open Education Resources (OER, http://www.oercommons.org/) and mobile applications (apps)

to learners represents mainstreaming of education innovation at the individual, micro level. Evolution of education at macro and micro levels is being promoted by groups with national and international influence, including the Hewlett Foundation, Institute for the Study of Knowledge Management in Education, and the Gates Foundation.

In order for the coevolution of education to continue, the redefinition of school from site to service is necessary. Schooling should be based on the best elements of other social services like medicine. Ideally, medical care is based on wellness and has been referred to as a life support system for the physical person. Education based on a wellness goal of building capacity and potential would be a lifespan support system for the intellectual person. As in medicine, educators would be caregivers providing service to students using the approaches best suited to each, in the times and places most appropriate for each.

Such a service-based education system could be built on what we have learned in recent years from research and practice as networked students (Drexler, Baralt, & Dawson, 2008) and communities of practice (Wenger, 2006) in which learning occurs for individuals and groups beyond boundaries of site-based schools. The networks and communities share three foundational stages in cycles of learning and collaboration: attainment by individuals of core competencies or objectives, synthesis of the objectives into meaningful products or activities, and shared application through exhibition and interaction.

A metaphor for this objective-synthesis-sharing cycle shows how natural and ingrained such activities are for human wellness. In the traditional method for food preparation the three stages are farm/market-kitchen-table. Individuals or small groups acquire specific ingredients at farm or market. They synthesize the ingredients into balanced meals in their kitchens,

which were outside each home in public view in villages. Then the meals that were crafted using a blend of art and science were shared communally in a social meal that sustained individuals and communities.

To enact an education system formed on this cycle requires a funding mechanism that encompasses all citizens, like a comprehensive Educare system might, in order to provide access to education though the lifespan. The system requires education care providers, general practitioners and specialists, in physical and virtual education care facilities where learners can be evaluated and can participate in creating an education plan to facilitate their next learning goals.

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Researching K-12 Online Learning

What Do We Know and What Should We Examine?

Michael K. Barbour

INTRODUCTION

As the former chair of the research committee for the International Association for K-12 Online Learning, an active blogger on K-12 online learning issues (e.g., http://virtualschooling.wordpress.com), and an academic with an interest in K-12 online learning, I often get requests from graduate students and practitioners seeking advice on potential research topics. For graduate students and

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others involved in higher education, I often direct them to the main reviews of literature related to K-12 online learning and advise them to examine what research has been done and what authors recommend should be done next (e.g., Barbour & Reeves, 2009; Cavanaugh, Barbour, & Clark, 2009; Rice, 2006; Smith, Clark, & Blomeyer, 2005). However, this is often not a suitable strategy for practitioners, as many do not have the time or background to be wading through the academic literature. In this article, I provide an overview of the research conducted in the field of K-12 online learning. I also outline some areas recommended for future research; and recommend a methodology for conducting that research.

LITERATURE ON K-12 ONLINE LEARNING

While the use of web-based or online learning at the K-12 level has been practiced in the United States since the early 1990s, the literature—and particularly the published research—has not kept pace. Fifteen years after the first K-12 online learning schools began operation (e.g., Laurel Springs School and Utah eSchool), Cavanaugh et al. (2009) began their review of the literature with an initial sample of more than 500 published items. Their analysis indicated that most of the published

literature related to K-12 online learning was "based upon the personal experiences of those involved in the practice of virtual schooling" (para. 5). This was supported by their finding that much of the literature was focused on the experience of the virtual school teacher or the virtual school administrator, as the majority of items reviewed were articles describing the experience and/or opinions of one or more of these individuals performing duties as a virtual school teacher or administrator.

Barbour and Reeves (2009) described the body of published literature as falling into one of two general categories:

- the potential benefits of K-12 online learning (e.g., higher levels of motivation; expanding educational access; providing high-quality learning opportunities; improving student outcomes and skills; allowing for educational choice; and administrative efficiency); and
- the challenges facing K-12 online learning (e.g., high start-up costs associated with virtual schools; access issues surrounding the digital divide; approval or accreditation of virtual schools; and student readiness issues and retention issues).

It should be noted that in their discussion of the potential benefits of online learning, Barbour and Reeves were careful to remind readers that while online learning may allow for educational improvements such as a high levels of learner motivation, high quality learning opportunities, or improvement in student outcomes, it certainly did not guarantee any of these potential benefits would be realized simply by the introduction of online learning. Cavanaugh et al. (2009) described the body of published literature as "focusing on statewide and consortium/multi-district virtual schools, the roles of teachers and administrators, the promise of virtual schooling and its initial rationale for imple-mentation, administrative challenges, the technology utilized, and interaction with students" (Conclusions and Implications, para. 1).

In terms of the published research, Barbour and Reeves (2009) wrote that "there [had] been a deficit of rigorous reviews of the literature related to virtual schools" (p. 402). Not only had there been a deficit of rigorous reviews, but the authors also stated that much of the research conducted into K-12 online learning was found in evaluation and research center reports, along with unpublished masters' theses and doctoral dissertations. Further, Cavanaugh et al. (2009) found that only a small percentage of the literature was based upon systematic research. Rice (2006) lamented, "a paucity of research exists when examining high school students enrolled in virtual schools, and the research base is smaller still when the population of students is further narrowed to the elementary grades. Finally, DiPietro, Ferdig, Black, and Preston (2008) were even more blunt in their assessment that research evidence in refereed journal publications and conference papers was limited.

For those involved in the study of K-12 online learning, the difference between published literature and published research is important. Published literature often does not go through a peer review process in which other individuals with knowledge, experience and expertise in the area review the article to ensure that the information is accurate and credible. These individuals make suggestions to the author(s) on ways in which they can improve or strengthen their article. Without the peer review process, manuscripts accepted for publication are often based solely upon the beliefs of the author(s). Another distinction is that research is based upon a process of systematic data collection and analysis, which should be described in enough detail that if other researchers had access to the data they

would come to similar conclusions and to allow other researchers to replicate the same study at a different time or setting. Published literature is almost always based on personal experiences that have not been documented in a systematic way and that could not be replicated.

RESEARCH ON K-12 ONLINE LEARNING

Cavanaugh et al. (2009) described the limited amount of published research that is available as:

> indicative of the foundational descriptive work that often precedes experimentation in any scientific field. In other words, it is important to know how students in virtual school engage in their learning in this environment prior to conducting any rigorous examination of virtual schooling. (para. 5)

Rice (2006) categorized the research into K-12 online learning as falling into two categories: comparisons of student performance based on delivery model (i.e., classroom vs. online), and "studies examining the qualities and characteristics of the teaching/learning experience" (p. 430). This second category was subdivided into three additional areas: characteristics of, supports provided to, and issues related to isolation of online learners. Cavanaugh et al. (2009) identified two similar categories in their review of the research: effectiveness of virtual schooling and student readiness and retention issues.

Examination of this research begins with a category identified by both of these literature reviews: the comparison of student performance between a traditional classroom and a distance environment. At present, this is the area of published research that has received the most attention. Unfortunately, it is also an area of research that has been most problematic. To provide two recent examples, Cavanaugh, Gillan, Bosnick, Hess, and

Scott (2005) found that Florida Virtual School (FLVS) students performed better on a nonmandatory assessment tool than did students from the traditional classroom. They also speculated that the virtual school students who did take the assessment may have been more academically motivated and naturally higher achieving students. McLeod, Hughes, Brown, Choi, and Maeda (2005) found FLVS students performed better on an assessment of algebraic understanding than their classroom counterparts, while stating they believed the student performance results were due to the high dropout rate in virtual school courses. These two examples highlight an issue present in most of the research into student performances: many of the lower performing students had either dropped out of their virtual school courses or failed to participate in the assessment. Rice (2006) described the problems as "issues of small sample size, dissimilar comparison groups, and differences in instructor experience and training" (p. 431), and concluded by stating "that the effectiveness of distance education appears to have more to do with who is teaching, who is learning, and how that learning is accomplished, and less to do with the medium" (p. 440).

The second category identified by Rice (2006) was studies examining the qualities and characteristics of the teaching/learning experience. This category included a number of studies that spoke to the characteristics that were perceived as desirable or necessary to be successful as an online learner. The list of characteristics was probably best summarized by Haughey and Muirhead (1999), who described the preferred K-12 online learner as being highly motivated, self-directed, self-disciplined, independent, and who could read and write well and had a strong interest in or ability to use technology. However, as Barbour (2009) indicated, "this is clearly not an accurate description of the entire or possibly even the majority of students attending virtual schools and, particularly, cyber

schools" (p. 18). This category also included research studies that underlined the important role of the teacher in the online learning environment (both the online teacher and the local or school-based teacher who was physically present to supervise and facilitate the students' learning). The third area that Rice discussed within the broad category of the teaching/learning experience was the role of the affective domain, specifically research on the potential for students to feel isolated in a distance education environment. This line of inquiry mainly focused on ways to provide support to decrease the transactional or perceived distance that students felt in their online learning environment.

The second category identified by Cavanaugh et al. (2009) was issues related to student readiness and retention. Much of the research in this category has focused upon the limited sample of students often engaged in online learning, and how online learning opportunities should be designed and delivered to allow for the greatest range of students to be successful. The research on the design and delivery of online learning provides two examples of how the published research can provide misleading conclusions and implications, particularly for practitioners. Barbour (2005, 2007) outlined seven principles for effective web-based design for adolescent learners, which appear to be an excellent guide for those involved in designing online learning opportunities. The limitation is that Barbour's principles are based upon a series of interviews that he did with virtual school teachers and developers in a single Canadian virtual school. Similarly, DePietro et al. (2008) outlined a series of best practices for teaching students in an online environment based upon interviews conducted with teachers in a single U.S.-based virtual school.

In both studies no data were collected that verified whether the opinions of the virtual school course developers and teachers were valid. Something a course developer may have found to be quite effective, a student may have found useless; in the same way something a teacher may have thought was an effective pedagogical strategy, a student may have found quite boring. There was no examination of student performance to determine if the design principle or teaching best practice was actually effective in terms of student learning. Finally, there was no examination of the actual course content or teaching practices of those interviewed to determine whether the way they described the principle or best practice was even how they were implemented (and there is a sizable body of research that indicates a teachers' stated beliefs or practices often differ from their actual implementation—e.g., Fishman, Marx, Best, & Tal, 2003; Schneider, Krajcik, & Blumenfeld, 2005). Even within the three areas where research has been published, there are still many methodological issues that need to be addressed.

FUTURE RESEARCH IN K-12 ONLINE LEARNING

Blomeyer (2002) advised that:

> online learning or e-learning isn't about digital technologies any more than classroom teaching is about blackboards. E-learning should be about creating and deploying technology systems that enable constructive human interaction and support the improvement of *all* teaching and learning. (p. 19)

Essentially, the focus of future research should be on how to use online learning to improve teaching and learning at the K-12 level.

In their synthesis of a series of quantitative K-12 online learning studies, Smith et al. (2005) recommended future research focus upon seven areas:

1. interpreting "equal of better" achievement findings;
2. understanding and improving student persistence;
3. instructional models that lead to student process skills;
4. issues related to student satisfaction and motivation;
5. identifying and remediating characteristics for successful online learning;
6. leveraging the features of online learning systems; and
7. discriminating online learning based upon a variety of educational contexts.

The following year, Rice (2006) recommended:

- Improve the quality of research that examines the critical components of learning directly related to younger learners.
- Continue and expand on the development of prediction instructions that help identify successful learner attributes.
- Develop organized student evaluation systems to facilitate consistent data collection.
- Investigate the relationship between student supports and at-risk student needs in relation to distance education.
- Investigate the social and cognitive aspects of distance education and the effect of knowledge construction.
- Develop valid and reliable tools for identifying interactive qualities in course design and instruction. (p. 442)

Barbour and Reeves (2009) called for future research to focus on "factors that affect student success in virtual school environments" (p. 412), while Cavanaugh et al. (2009) recommended that researchers work to establish best practices for online teaching strategies, improve the identification and remediation of characteristics needed for success in the online environment, investigate how school-based teach-

ers can support online learners and examine the student experience in online learning—particularly the lower performing student.

However, given the small amount of published research to date—and considering some of the methodological issues with that existing research—what may be more important to future research into K-12 online learning is not what is studied, but how it is studied. Smith et al. (2005) identified seven potential barriers that researchers needed to overcome to be able to conduct effective research on K-12 online learning. These barriers included:

1. access to critical data that are often not publicly available or even viewed as proprietary;
2. distributed nature of online learning and the need to involve multiple organizations in multiple jurisdictions;
3. the need to understand the school culture, but also be able to maintain a professional distance from that which is being studied;
4. the lack of high quality, reliable, and valid assessments;
5. study time frames not matching up with school years or funding cycles;
6. insufficient funding to research and evaluation of K-12 online learning; and
7. the almost exclusive focus by the Department of Education on success as measured by student achievement on standardized tests.

While much has changed in the educational climate since these barriers were first described, most of these seven barriers are still applicable today.

Barbour and Reeves (2009) went even further in their discussion of how future research into K-12 online learning should be conducted. These authors recommended a design research approach. Design research is "a systematic but flexible methodology aimed to improve educational practice through iterative analysis,

design, development, and implementation, based on collaboration among researchers and practitioners in real-world settings, and leading to contextually sensitive design principles and theories" (Wang & Hannafin, 2005, p. 6). Essentially, researchers work with practitioners to identify a problem that needs to be addressed and to create a possible solution. That solution is implemented and data are collected. The data are used to refine the solution and the process is repeated. This continues until the solution addresses the original problem, and a theory is generated to explain why it works. Unlike traditional methodologies of educational research, the goal is not to generalize the findings to other contexts, but to work with those who are part of the research site to solve their problems. As a methodology, design research has been particularly welcomed by the K-12 education community, who have become accustomed to a team of researchers descending upon their school to implement one of the latest and greatest ideas, which works wonderfully as long as the research team is in place, but as soon as the funding is gone and the research team leaves, the staff revert back to the way they have always done things.

One illustration of design research in action within the K-12 online learning environment was the Virtual High School Global Consortium (VHS). Created through a 5 year, $7.4 million grant (Pape, Adams, & Ribeiro, 2005), it had an expectation that annual evaluations (e.g., Espinoza, Dove, Zucker, & Kozma, 1999; Kozma, Zucker, & Espinoza, 1998; Kozma et al., 2000), content-specific investigations (e.g., Elbaum, McIntyre, & Smith, 2002; Yamashiro & Zucker, 1999), and a final evaluation (e.g., Zucker & Kozma, 2003) be conducted. This research was conducted with the VHS staff as a full participant (i.e., being involved in identifying the issues that needed to be examined, assisting in the design and completion of the research, implementing the recommendations, and then repeating the process to ensure the recommendations had the desired outcomes). As a result of these cycles of inquiry that examined a variety of problems in this specific context, along with the close relationship between VHS staff and the SRI International evaluation team in the design of both the virtual school and the evaluations, much of what is still known about virtual schools comes from this refined approach (and the VHS has not only survived, but thrived since the conclusion of that federal funding).

CONCLUSIONS

While K-12 online learning has been practiced in the United States for almost two decades, the amount of published research in this area is still quite limited. Additionally, some of the research that has been conducted suffers from methodological flaws or attempts to reach beyond the scope of the researcher's inquiry. However, there have been several recent reviews of the K-12 online learning literature have that provide a framework for future research, including: moving beyond comparisons of student performance to investigate issues related to the effective design and delivery of K-12 online learning, how best to support K-12 online learners, both within the online environment and at the local school level, and understanding the experience of the lower performing or at-risk learner in an effort to improve their chances of success in the online environment. Finally, as important as the topics being investigated, researchers should consider design research approaches to ensure a more lasting impact on those involved in the actual research study.

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Identifying and Addressing Teaching Challenges in K-12 Online Environments

Leanna Archambault

INTRODUCTION

Often, educators report that they were born to teach, and from a very early age, it is clear that they are destined to have a classroom of their own. However, this dream typically did not include teaching via the use of a web-based environment. An increasing number of elementary and secondary teachers are finding themselves encountering this relatively new form of instruction. However, this type of teaching presents a unique set of challenges. According to a recent survey

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of almost 600 K-12 online teachers throughout the United States, major areas of concern include the amount of time devoted to teaching online, control over the content, and issues related to students (Archambault & Crippen, 2009).

TIME

While virtual teachers enjoy the flexibility of teaching online, the amount of time spent teaching online surpasses that of a traditional, face-to-face environment. When asked about the challenges related to time, online teachers agree that although it is beneficial in many ways, including getting to know their students better, the time investment was a major factor in their workload. As one online teacher commented, "I feel that it is a wonderful opportunity for my students, but it takes much more of my time than it did when I was in the classroom." Another echoed the same theme: "Teaching online I feel is much harder than any other type of teaching position I have had in the past. It takes a lot of preparation, and decision making,"

The notion of time and energy spent is one that is particularly underestimated by those outside the field, and often comes as a surprise to those who are new to online teaching. Because many teachers in this area are continually improving their practice with new content, new technologies, and new ways of engaging students, it can

be particularly time-consuming, as another online teacher noted: "I work harder now than ever before. No two years are ever the same." This finding is consistent with previous studies that suggest that through the process of teaching online, instructors at the K-12 level continually made changes to improve their courses, especially the courses that they had previously taught face-to-face (Lowes, 2005).

The amount of time needed to teach in an online environment is an important consideration for those considering entering the profession. Although schedule flexibility and the ability to teach "anytime, anywhere" is a understandable draw to prospective teachers, online teachers need professional development from the onset that emphasizes the demands for time and addresses time management strategies specific to online teaching. These could include setting clear expectations with students, such as policies regarding response time to e-mail, feedback on assignments, and procedures for having questions answered, and the role of the teacher as facilitator. These elements are related to classroom management for the online environment. Because teachers coming from traditional settings have experienced preparation related to establishing rules, routines, and procedures for face-to-face teaching, the translation of elements for an online setting is sorely needed.

COURSE CONTENT

Another challenge facing online teachers is how content for their courses is developed. From examining various models, there appears to be a wide range of models for how online content is created. Some virtual schools allow their teachers to create their own content and others use materials developed by a content provider, colleague, or curriculum specialist. The experience on the part of the teacher with respect to how much control they had to change their course(s) seemed to be an issue. When teachers do not have control over the content, this can become a source of frustration, as one expressed: "I have little control on curriculum and course management. [Notice of] errors within the course need to be submitted through a third party. I would prefer to make corrections myself to eliminate the delay." Several other teachers experienced a similar feeling:

> I am not the creator of the lesson plans or course design, and have no authority to change or create anything for my students.

> I find the curriculum at this online school is very poor. I spend much of my time rewriting it while I teach. Also, in social studies it is hard to impossible cover the content (or state standards) in anything less than a very superficial way.

> The school I work for has a great environment and very supportive staff/faculty, but there is little freedom in the actual instruction of the courses.

Content development is a unique issue related to K-12 online education, and an area for future research, including who provides content, how it is created, and how content is evaluated for possible use and adoption. Content providers may want to consider allowing greater access for teachers to incorporate their own lesson ideas, as well as the ability to make corrections or revisions to curriculum directly. Since educators in online environments should be certified in the content area in which they are teaching, their input in how the courses should be organized, activities that should be implemented, and the ability to make modifications, needs to be heavily weighed. Through the process of teaching online, educators learn what works and what does not. According to another study, online teachers continually made changes to improve their courses, especially the courses that they had previ-

ously taught face-to-face. As one online teacher commented, "By developing my course, I have had the opportunity to introspectively analyze what I am teaching, why I teach the way I do, and how I can change and improve my communication with students" (Lowes, 2005, p. 7). This experience is an important consideration when deciding on the extent to which teachers are allowed to modify, revise, and/or create content for the classes they teach.

STUDENT ISSUES

Online teachers also express frustration in dealing with various student-related issues, including students who may not be well suited for an online learning environment and the disparity between students who succeed and those who fail. This theme is echoed by the following online teacher sentiments:

> I am surprised by the amount of students that fail, but I have seen improvement over the last year and a half. It seems that students either do really well or just don't do anything at all.

> Many of my students are making great progress toward understanding mathematical concepts. However, others choose not to participate and consequently they fail. Online works well for some motivated students.

> Pretty much the same as face to face students. Some students self motivated to get work in, some you have to track and remind, and some give up even when they obviously can do the work.

Other teachers express frustration at times in getting to know their students:

> Sometimes it is frustrating not knowing what is going on with the student's personal lives.… This limits your understanding of their needs. Other than that I enjoy doing it.

The methods for teaching online, or online pedagogy, include the differences in teaching strategies that are implemented when adapting curriculum to an online environment, such as student interaction, evolving teacher roles, student access, and evaluations of student outcomes. Online educators also need to be aware of the importance of encouraging and teaching specific self-regulated behaviors to their students to ensure every possible chance for success, such as the use of cognitive strategies such as modeling, analogies, and metaphors to aid in understanding the content-related material. This involves the teacher's ability to translate and contextualize information to improve students' understanding and motivation for learning. In order to be able to create such materials and implement these types of strategies, online teachers need to have not only an excellent grasp of their given content area but also an appreciation of how technology and the online environment affect the content and the pedagogy of what they are attempting to teach. Because of this, professional development is needed in order to assist teachers with the unique challenges of developing their skills related to meeting the needs of students, especially those with disabilities students who might be at-risk for failing, and with differentiating instruction (Rice & Dawley, 2007).

There is wide array of obstacles that dedicated teachers have had to overcome in order to better educate students and improve learning. Online teaching presents a unique set of challenges, including the amount of time needed, the development and implementation of course materials, and the ability to meet the needs of a diverse group of students. This requires highly motivated, committed individuals who are able to translate, adapt, and develop their teaching skills to the online environment and who are willing to learn to continue to improve their practice. As one online teacher described:

My experience with online teaching can be described as a learning experience! I have learned so much about computers/ software/trouble-shooting. I would have never thought I could do so much on a computer. If you had asked me 8 years ago to even try to complete some of the work I now do I would have been flabbergasted! So, I learn and the students learn, and we try to keep it educational, but still fun. This is a great teaching environment for teachers who are self-motivated, willing to learn, and who are good with doing a lot of work independently.

SPECIFIC RECOMMENDATIONS

From the major challenges communicated by online teachers, additional preparation, professional development, and support is needed. Online teachers would benefit from educational opportunities that focus on the time demands and management strategies for teaching in an online environment. Concentration areas in online classroom management might examine ways that online teachers could more effectively use limited time through establishing clear expectations with students, procedures for streamlining responses and feedback to students, management of student interaction, and the evolving role of the online teacher. Although experienced teachers are adept at managing a face-to-face classroom, there is a clear need for assistance with developing this skill set in the online environment to ensure that teachers are able to effectively use their time to maximize student learning and engagement.

Another focus area for development of online teachers is how pedagogy is transformed as a result of being in an online setting. Methods for engaging students, encouraging interaction, assisting students to be more self-regulated, and helping them to stay on track are all part of the "art" of online teaching that can be sometimes difficult to cultivate. Teachers also need to understand the unique challenges online students face, especially those from at-risk backgrounds so that they can employ instructional strategies to support learning to ensure student success in the online classroom. In addition, online pedagogy uses the affordances of technology to provide the best possible modeling, analogies, and strategies to craft instruction and help students understand the content. The ability to differentiate instruction is one of the key advantages of the online classroom, but without sufficient preparation and the capacity to create, revise, and guide the curriculum, this opportunity is potentially lost.

In addition to online classroom management and pedagogy, the notion of who creates content and who has access to make changes, modifications, and revisions seems to be an area of concern for online teachers. Because teachers who could not make changes in the curriculum expressed frustration, virtual schools using content providers may want to develop a clear, quick, and easy process for teachers to be able to make revisions in lessons, especially if there are errors or inconsistencies in the content. It may also be beneficial to allow teachers to supplement the created content with their own lessons, ideas, web-based resources, and approaches to teaching a specific unit. Just as in the face-to-face classroom, where teachers have access to materials, but have the ability to make modifications based on their expertise, this flexibility is also needed in the online environment, allowing for the medium to capitalize on teachers' knowledge and experience to improve instruction.

To face the challenges of online teaching, additional professional development and preparation is needed, not only on the part of virtual schools dealing with the specifics of their programs, but also on the part of teacher education programs as a growing number of educators enter the field. By hearing directly from online teachers themselves, specific issues related

to online pedagogy, content, and technology can be addressed so that these individuals are better prepared to enter the virtual classrooms that are an increasing and important part of our educational landscape.

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K-12 Online Education is Increasingly Hybrid Learning

Michael B. Horn

Over the last decade, growth in K-12 online learning has exploded. Online enrollments—any instance of a student taking a half-semester course—have soared, and the total number of students taking online courses, either part time or full time, has climbed rapidly (Adkins, 2009; Picciano & Seaman, 2009; Watson, Gemin, Ryan, & Wicks, 2009).

The growth has been so rapid in high school that in the book *Disrupting Class*, the authors project that by 2019, 50% of all high school courses will be online. Ambi-

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ent Insight projects that by 2014, 10.5 million pre-K-12 students will attend classes online (Christensen, Horn, & Johnson, 2008; Adkins, 2009).

Along with its rapid growth, online learning bears other hallmarks of a disruptive innovation. A disruptive innovation is one that transforms a sector characterized by expensive, complicated, inaccessible, and inconvenient products or services into one where the products or services are far more affordable, simple, accessible, and convenient (Christensen et al., 2008). It is this transformative potential that is increasingly catching the eyes of policymakers, including leaders at the U.S. Department of Education and some governors, and foundations, from Gates to MacArthur, as having the potential to not just change the medium of learning but to change schooling itself from the present monolithic, factory-model system into a far more student-centric one.

Online learning, like all disruptive innovations, has begun small by serving those who are unable to consume or access the mainstream product or service. In the case of online learning, this has meant it has begun in advanced courses that many schools are unable to offer; in small, rural, and urban schools that are unable to offer breadth; in remedial courses for students who must retake courses in order to graduate; with home-schooled students and those who haven't been able to keep up

with the regular schedule of school; for students who have not been able to take a class because of a scheduling conflict; and for dropouts (Picciano & Seaman, 2009; Watson et al., 2009).

And as with all disruptive innovations, online learning is predictably improving, which is allowing it to grow in places where a mainstream and traditional face-to-face educational system often readily cedes ground.

One dimension of this improvement can be seen in the changing assumptions and definitions for what online learning means. Increasingly the growth in online learning is less and less of a fully distance phenomenon and more and more of a blended or hybrid one in which students combine elements of online learning with elements of a face-to-face learning experience (Picciano & Seaman, 2009; Watson et al., 2009).

These hybrid or blended arrangements take a variety of forms, and there is still no agreed upon set of definitions in the field for the various terms in use (Watson, 2008). Some make distinctions based on the percentage of content that is delivered online versus face-to-face (Allen, Seaman, & Garrett, 2007). Others have drawn the distinction that there are hybrid or blended *programs* and hybrid or blended *courses*—and use the words hybrid and blended interchangeably (Patrick, 2010). There are several other definitions and taxonomies in use as well.

Either way, the hybrid models in particular have drawn the interest of many foundations. There is some sense to this attraction. Over the last decade, aided by online learning, home schooling has grown extremely fast as well. There are disagreements about the numbers, but all estimates have the same trajectory; the number of home-schooled students has grown from roughly 800,000 in 1999 to anywhere from 1.5 million to just over 2 million today. When one plots this growth on a substitution curve to determine if the

home-schooling movement is growing in accordance with an S-curve pattern—as online learning is and a disruptive innovation does (Christensen et al., 2008)—the answer is that it is not. The growth flattens out around 5 million students—or just under 10% of the U.S. K-12 schooling population.

This is logical. School is not only for learning; it does many other things as well, including a custodial job— "keep my child safe and productively occupied"—for many parents and society. For children, it also does a social job, as it allows them to have fun with friends. Ten percent of children is likely the upper-most limit of students who come from families that have the structure or socioeconomic wherewithal to handle these other jobs. As such, most children will need a physical place to learn at least some of the time. Therefore, marrying a brick-and-mortar location with the potential of online learning to transform schooling by, among other things, making the element of time a variable rather than a constant, is an exciting path.

There are many hybrid programs of different forms attracting attention. Rocketship Education is a small network of elementary chartered schools based in California in which its students learn online for a block of time each day. The rest of the time they learn in a more traditional face-to-face setting. The students in Rocketship schools not only have stellar test scores, but also the schools themselves cost significantly less to operate than does a typical chartered school in California.

At the Chicago VOISE Academy, a district-run high school, students attend school on a regular schedule. Once in the classes, however, they do the majority of their learning online with the aid of in-person teachers (Sloan & Mackey, 2009). A growing number of schools like the Hoosier Academy in Indiana are structured so that students come in for a traditional face-to-face learning experience a couple of days a week and then work

online from a remote location the rest of the time (Cavanaugh, 2009; Watson, 2008). And in Houston, Texas, the ProVision Charter School has established a learning lab for its high school students. Called the Vision Academy, the students learn online with virtual teachers and are supervised by paraprofessional learning coaches.

As stated earlier, many traditional schools use online learning to allow students to take courses that they would not otherwise have access to. Several have dedicated spaces for students to take these online classes with teachers or other adults by their side. Wichita Public Schools, for example, has space in each of its high schools where students retake online courses to recover credits. Wichita, like an increasing number of districts in the United States, has also set up alternative schools to serve dropouts. These alternative schools are often located in shopping malls and utilize online learning to offer students a wide range of courses. Students come and go according to their own schedule and have access to teachers and other adult supports on site (Mackey, 2010).

A plethora of different types of blended-learning environments already exists today. With the continued rapid growth in K-12 online learning as well as increasing dollars from funding sources going toward hybrid learning, we can expect only more to emerge in the coming years. As these models develop, researchers will have a dual challenge before them: not only will they have to wrestle with how to define and categorize the new models that emerge, they will also need to learn which models work best for which circumstances and students. Doing so will not just advance the research; it will also push education toward a student-centered future.

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Cross-Reference of Online Teaching Standards and the Development of Quality Teachers for 21st Century Learning Environments

Kathryn Kennedy

Virtual schooling is a fast-growing option for K-12 students in the United States. As of 2009, 45 states had supplemental online learning programs or full-time programs, and some had both (Watson, Gemin, Ryan, & Wicks, 2009). Offering flexibility of time and place,

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and guided, individualized, student-centered instruction (Watson et al., 2009), K-12 online learning suits the needs of many students.

Praised by school administrators in a 2008 public school district survey, online learning is serving individual needs of students and providing a "lifeline" of education to those students who are not able to partake in specific courses that will enable them to become global citizens (Picciano & Seaman, 2009). In that same report, 75% of responding school districts offered online or blended courses (this estimate increased 10% since their 2005-2006 study), 66% had students enrolled in online or blended courses and anticipated these enrollment numbers to increase, and the total number of K-12 students enrolled in online courses was projected at 1,030,000 (this estimate increased 47% since their 2005-2006 study) (Picciano & Seaman, 2009).

In addition to the public school district survey, a recent U.S. Department of Education meta-analysis compiled and analyzed online and blended learning literature. This report found that "classes with online learning (whether taught completely online or blended) on average produce stronger student learning outcomes than

do classes with solely face-to-face instruction" (p. 18). The meta-analysis also reported "instruction combining online and face-to-face elements had a larger advantage relative to purely face-to-face instruction than did purely online instruction" (p. xv). As can be seen from these and many other reports, online and blended learning are becoming vital components in education across the United States and around the world. Online learning continues to grow exponentially, and by 2011, estimates show over eight million students will use some form of online learning (whether full-time or supplemental programs) (Greaves Group & Hayes Connection, 2006). As K-12 online learning continues to grow, so does the demand for teachers who are prepared to teach online. To prepare teachers to teach in these new learning environments, standards were created to ensure quality online teacher preparation practices. Many of these standards reference that teachers should be prepared to teach students twenty-first century skills (Partnership, 2009).

Twenty-first century skills center on three overarching topics, including "life and career skills," "learning and innovation skills," and "information, media, and technology skills." Within learning and innovation skills, students need to be able to learn and practice creativity, innovation, critical thinking, problem solving, communication, and collaboration. Under the umbrella of information, media, and technology skills, students need to be able to hone skills pertaining to information literacy, media literacy, and information and computer technology literacy. Encompassing the life and career skills, students will need to exhibit flexibility, adaptability, initiative, self-direction, social and cross-cultural skills, productivity, accountability, leadership, and responsibility. Students in the twenty-first century need to have a solid understanding of the core subjects, including English, reading, language arts, world languages, arts, mathematics,

economics, science, geography, history, government and civics (Partnership for 21st Century Skills, 2009). In addition, they need to have an understanding of the interdisciplinary application of these content areas when it comes to global awareness, as well as be literate in finance, economics, business, entrepreneurship, civics, and health (Partnership for 21st Century Skills, 2009).

In order to foster these skills in students, teachers need to learn how to cultivate a twenty-first century learning environment. The International Association for K-12 Online Learning (iNACOL) and the Partnership for 21st Century Skills partnered to write *Virtual Schools and 21st Century Skills* (2006) to emphasize how virtual schools have the potential to be twenty-first century learning environments. This report speaks to the need for educators to rethink education to align learning environments with real world demands. These learning environments are flexible and can be utilized at any time, anywhere. By taking part in twenty-first century learning environments, it is theorized that students will become more marketable for the careers they will be competing for in the future, many of which are yet to be created. Virtual schools are doing their part to empower students to be twenty-first century learners and global citizens, ethically and morally aware individuals who see how their actions and decisions affect the world around them (iNACOL & Partnership, 2006). Whether teaching these global citizens in an online or blended learning environment, teachers need to be ready to facilitate their students' learning in this twenty-first century education system (Wehling & Schneider, 2007).

The standards that guide the development of teachers to teach online and in blended formats include the International Society for Technology in Education's (ISTE) *National Educational Technology Standards for Teachers* (NETS*T) (ISTE, 2008), the Southern Regional Education Board's

(SREB) *Essential Principles for High-quality Online Teaching* (SREB, 2006), the National Education Association's (NEA) *Guide to Teaching Online Courses* (NEA, 2006), and iNACOL's *National Standards for Quality Online Teaching* (iNACOL, 2008).

Since their original release in 2000, the ISTE NETS*T standards have been adopted in all of the 50 states in addition to guiding the education policy in other countries (ISTE, 2007) and not only pertain to online instructors but also to brick-and-mortar teachers. iNACOL's *National Standards for Quality Online Teaching* (2008) were informed by a range of effective practices and research sources, as described by Ferdig et al. (2009). The iNACOL's standards have been adopted by states like Utah, Georgia, and Wisconsin. Table 1 contains a breakdown of the similarities and differences among these standards.

As can be seen from Table 1, these standards can be broken down into five categories: (1) qualifications, professional development, and credentials; (2) curriculum, instruction, and student achievement; (3) management; (4) evaluation; and (5) character.

The single standard that all four of these organizations share is that online teachers must have the prerequisite technology skills to teach online. Many standards are shared by three of these organizations. These include the ability for teachers to specify learning objectives and design activities and assessments around those objectives, the commitment to individualize instruction for all learners, the knowledge that student success is extremely dependent on the teacher and his or her design of the course, and the desire to collaborate with everyone in the community, school, and profession to promote culturally and globally aware citizenship. Some of the standards were highlighted as being important to two organizations, and these included the need for online teachers to meet state teaching standards and secure academic credentials, design for active

learning, demonstrate high-quality communication skills, promote collaborative learning, build a community of learners, share information regarding student progress, and model and teach legal, safe, and healthy technology use.

A few specific standards came from single organizations. ISTE, for example, expects teachers, online, blended, and traditional, to contribute to the profession, school, and community by exhibiting leadership in integrating technology into the curriculum. In addition, ISTE finds importance in teachers evaluating and reflecting on educational research and teacher practice to maintain their continued focus on student success and using effective tools to achieve that. In order to keep up-to-date, ISTE suggests teachers participate in learning communities, both locally and globally, in order to find unique ways to increase student learning. ISTE encourages individualization and personalization of activities and assessments based on students' learning styles as well as promoting student reflection for deeper, analytical understanding. Teachers that meet ISTE standards are innovative thinkers who engage students with real-world issues and who encourage students to think outside the box by finding authentic, creative ways to solve problems using digital tools.

SREB wants teachers to make students feel comfortable and supported. They expect online teachers to monitor and facilitate online interactions between students and provide appropriate standards for students to meet regarding these interactions, ensuring that students feel comfortable interacting with one another. SREB states that online teachers should request assistance from others in order to better support student learning. In addition to other support, SREB feels that online teachers should assess students prior to beginning instruction. Security of student data and work is important to SREB as well, and so is monitoring academic honesty. Online teachers under SREB standards are

Table 1.   Cross-reference of Online Teaching Standards

	Standards	ISTE	SREB	iNACOL	NEA
		Organizations			
Qualifications, professional development, & credentials	• Has prerequisite technology skills to teach online, uses content management system	✓	✓	✓	✓
	• Meets core professional-teaching standards as designated by state licensing agency, with necessary academic credentials		✓	✓	
	• Contributes to effectiveness, vitality, self-renewal of profession, school and community; exhibits leadership, demonstrates vision of technology infusion, participates in shared decision making and community building, and develops the leadership and technology skills of others; evaluates and reflects on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning; participates in local and global learning communities to explore creative applications of technology to improve student learning	✓			
	• Experienced online learning from the perspective of a student			✓	
	• Completed professional development specifically geared to teaching online				✓
Curriculum, instruction, and student achievement	• Specifies learning objectives, designs activities to measure mastery of the stated objectives	✓		✓	✓
	• Uses fair, adequate, authentic, appropriate, multiple and varied methods, both formative and summative, to assess students	✓	✓	✓	
	• Complies with Americans with Disabilities Act by incorporating adaptive technologies to meet individual student needs		✓	✓	✓
	• Uses online resources effectively to deliver instruction	✓	✓		
	• Plans, designs and incorporates strategies to encourage active learning	✓		✓	
	• Demonstrates high-quality communication skills		✓		✓
	• Adapts web-based course to meet students' needs; promotes student participation and interactions; provides students with timely feedback, prompt response and clear expectations		✓	✓	
	• Promotes collaborative learning to deepen learning experiences and build community			✓	✓
	• Customizes and personalizes learning activities to address students' diverse learning styles, working strategies, and abilities using digital tools and resources; promotes student reflection using collaborative tools to reveal and clarify students' conceptual understanding and thinking, planning and creative processes; promotes, supports, and models creative and innovative thinking and inventiveness; engages students in exploring real-world issues by designing authentic problems using digital tools	✓			

(Table continues on next page)

Table 1.   (Continued)

	Standards	ISTE	SREB	iNACOL	NEA
	• Makes clear to students his/her availability and will-ingness to support them; facilitates and monitors appropriate interaction among students; provides and enforces appropriate standards for student behavior; requests others' assistance in supporting students' learning; assesses students before beginning instruction by pre-assessing frequently; ensures students know one another and feel comfortable interacting online		✓		
Management	• Understands that student success is an important measure of course success, uses data and assessments to modify instructional methods and content to guide student learning	✓	✓	✓	
	• Shares and communicates information about student progress with mentors, principals and parents	✓	✓		
	• Models, guides, and encourages legal, ethical, safe and healthy behavior related to technology use	✓		✓	
	• Ensures that students' work and data are secure; monitors students to ensure academic honesty; helps students with technical issues; coordinates and assists students in understanding course requirements and procedures for working online; guides and monitors students' management of time		✓		
Evaluation	• Accepts and follows policies and procedures to monitor courses; ensures that students participate actively in the course		✓		
	• Exhibits student-centered and flexible characteristics while maintaining high standards				✓
Character	• Collaborates with students, community members, peers, parents, and student support staff, including other teachers by modeling the behavior to further student participation and success in the online course in a culturally aware manner	✓		✓	✓
	• Possesses a sense of humor and is able to project their personality through developing an "online voice"; exudes motivation and self-initiative by working effectively and efficiently without constant supervision				✓

expected to help students with technical issues, assist students in understanding course requirements, and guide students with their time management. To do this, they must monitor courses and ensure that students participate actively. iNACOL developed their online standards based on the SREB standards and added specifically that the online teacher needs to have experienced online learning from the perspective of a student.

The NEA standards emphasize the need for online teachers to complete professional development specific to online teaching. The online teacher should also maintain high standards for his or her students while creating a learning environment that is student-centered and flexible.

NEA also feels that online teachers need to be self-starters who are motivated to do work with little to no supervision. They should also possess a sense of humor along with a voice that is "heard" by their online students.

Learning to teach online has been stressed as absolutely necessary for all teachers (Patrick, Murphy, & Revenaugh, 2009). Because of this, several preservice teacher education programs and in-service teacher professional development initiatives have used the standards mentioned above to develop teacher preparation specifically geared to K-12 online teaching. For instance, Iowa State University started Teacher Education Goes Into Virtual Schooling, or TEGIVS, which was established using a Fund for the Improvement of Post Secondary Education (FIPSE) grant (Davis et al., 2007). This program offers guidance to teacher education programs across the United States and around the world when it comes to developing a quality preservice teacher preparation program specific to preparing teachers to teach online. Their website includes detailed outlines and demonstrations on how to include curriculum for learning effective online pedagogy, guidelines for developing rich virtual school field experiences (Compton, Davis, & Mackey, 2009), and procedures for introducing various models of virtual schools (TEGIVS, 2010).

In addition to TEGIVS, the Going Virtual Series sponsored by Boise State University (BSU) and iNACOL is making strides to help preservice and in-service teachers see the merits of virtual and blended learning environments (Rice & Dawley, 2007, 2008, 2009; Rice, Dawley, Gasell, & Florez, 2008). Their degree and certification programs' curriculum includes courses on technology integration, web design, program evaluation, multimedia development, online course design, online teaching, educational gaming and simulation, and instructional design (BSU, 2010).

Some teacher education programs, in addition to offering online pedagogy and instructional design curriculum, have begun to offer field experiences in virtual schools. Included in these programs are the University of Central Florida (UCF) (Prabhu, 2009) and the University of Florida (Kennedy, 2010). In these programs, preservice teachers are paired with a virtual school teacher at the Florida Virtual School and immersed in the online learning environment for 4 to 7 weeks. The chair of the Teaching and Learning Principles department at the UCF College of Education said, "We want to be thinking ahead of where the education industry is now. This program will give our students an edge, because they will not only know how to teach a traditional class, they will know how to do it virtually" (University of Central Florida Newsroom, 2009, p. 1).

Some virtual schools have started offering professional development initiatives to in-service teachers. For example, VHS offers COVE, a Community Of Virtual Educators. COVE provides five best practices courses focused on teaching K-12 teachers how to use Web 2.0 tools in their courses, whether the course is online, blended, or traditional (Wortmann et al., 2008). In addition to VHS's COVE, the Florida Virtual School (FLVS) offers their Teaching Online Series, "filled with best practices specific to the virtual school environment" (FLVS, 2010). Courses in the FLVS series provide teachers with an introduction to online teaching and a variety of special topic courses to target specific situations, such as assisting struggling readers.

These programs and schools, and others like them, are using the SREB, iNACOL, NEA, and ISTE standards to prepare both current and future teachers to be effective online instructors. Sharing various similarities and differences, these standards ensure a quality learning experience for the students that online teachers serve. The standards indicate what future teachers need to be able to do in order to pro-

mote meaningful learning in online and blended learning environments. These standards are important to many constituents in the virtual school community, including but not limited to state departments of education, who are responsible for drafting policy regarding teacher development guidelines; teacher education programs, who need to prepare teachers who are able to teach in online and blended learning environments and who are responsible for providing twenty-first century learning opportunities to their K-12 students; K-12 schools, both virtual and blended, who are in charge of developing and mentoring new teachers to be effective online and blended instructors; and K-12 students, who deserve both high-quality teachers and the chance to become tomorrow's globally responsible citizens.

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"LEARNING TO TEACH ONLINE HAS BEEN STRESSED AS ABSOLUTELY NECESSARY FOR ALL TEACHERS."

The Teacher as Migrant
How Teaching Online Can Change Classroom Practice

Susan Lowes

INTRODUCTION

Online and face-to-face courses are often seen, and studied, as two separate worlds. In the past, most of these studies have been comparative—Is an online course in such-and-such subject more or less effective that a face-to-face course in the same subject?—but increasingly the focus is on evaluating each on its own terms (Sener, 2005). This is progress, but it still considers the two environments separately. Although face-to-face and online courses do indeed take place in separate environments, the social field of the

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teacher who teaches them increasingly includes both. Much as immigrants leave the cultural comfort of their home societies and move to places with very different cultures and social practices, those who teach online leave the familiarity of the face-to-face classroom for the uncharted terrain of the online classroom. And when they subsequently return "home," they are likely to bring back ideas, strategies, and practices that worked well for them in the online environment, which may in turn transform their face-to-face classroom practice.

The metaphor of the migrant comes from some of the recent social science literature on migration. Those migrants who maintain contact with their home societies, either by physically returning for visits or by sending and receiving visitors, remittances, and information, are referred to by some migration theorists as "transnational" migrants. In a recent article, two of these researchers made a distinction between "transnational ways of being" and "transnational ways of belonging" that are suggestive for the classroom context as well. Here is the quote: "Those who engage in social relations and practices that cross borders as a regular feature of everyday life … exhibit a transnational way of being. When people explicitly recognize this and highlight the transnational elements of who they are, then they are also expressing a transnational way of belonging. Clearly, these two experiences do not always go hand in hand" (see Levitt & Glick Schiller, 2004, p. 4). In what follows, there are

already teachers who not only practice in both venues—and thus exhibit a trans-classroom way of being—but whose reflection on that practice has led to deliberate to changes in their face-to-face classrooms, thus exhibiting a transclassroom way of belonging.

It is the transformation, of the course and of the teaching, and the two-way interactions, or flow, between online and face-to-face classrooms, that were the focus of this study. The research on which this article is based looked at the full migration path of a teacher and a course for 215 Virtual High School (http://www.govhs.org) teachers as they moved from face to face to online and then back to face to face. This article will focus on the return path, taken by about 75% of responding teachers, and will report on how the VHS professional development course, combined with what they had learned from the constraints and affordances of teaching in an online environment, led many of these teachers to transform their face-to-face courses, both in terms of content and pedagogy.

This research began with a series of interviews of current and former VHS teachers in order to better understand the issues surrounding creating and teaching online courses. These interviews took the teachers through the entire circle: from teaching a face-to-face course, to developing and then teaching an online course, and then (where applicable) to teaching face to face. They elicited a long and complex list of the kinds of changes these teachers had made in adapting their face-to-face courses for the online environment, in teaching their online courses over several semesters, and in their subsequent face-to-face teaching. (For more information on the sample, response rate, questionnaire, and for more detailed results, see the full report at http://www.ilt.columbia.edu)

VHS was chosen as the setting not only because of its long history of offering highly rated online courses in many sub-ject areas to students in schools across the United States, but for two additional important reasons: first, most VHS teachers also teach face-to-face courses in their own schools at the same time as they are teaching online, and second, VHS requires that all of its teachers prepare for teaching online by taking a demanding professional development course (delivered online) on the pedagogy of online teaching (Pape, Adams, & Ribiero, 2005).

As part of their professional development, new VHS teachers either create courses or (with increasing frequency as the catalog is built) take ownership of existing courses by adapting them to fit their own knowledge base and teaching styles. VHS courses follow the virtual classroom model: they are asynchronous but not self-paced. Students follow a weekly schedule and are expected to complete a number of assignments each week, some of which involve communicating with each other in discussion forums or in group projects. VHS courses are developed using the principles of "backward design" (Wiggins & McTighe, 1998) and VHS professional development emphasizes student-centered teaching; collaborative, problem-based learning; peer learning; small-group work; and authentic performance-based assessment. Thus all of the survey respondents required their students to use the discussion forums, and all reported that their courses included multiweek projects (98%), collaborative group work (95%), and peer reviews (84%), while 69% reported that they had their students complete multimedia assignments.

WHAT CHANGED?

Although those working online education had a general idea, from anecdotal reports and previous interviews, that teachers do make changes when they go back to their face-to-face classrooms after teaching online, the aim of this research was to learn more about exactly what they

changed. Were the courses redesigned? Was it simply that content was added (or deleted)? Or were there more subtle changes in classroom practice?

The most frequent changes (defined as those made by 60% or more of the respondents) had course design/redesign as the major component. Teachers eliminated lessons that now seemed poorly designed and designed or redesigned existing lessons using newly acquired backward design principles. In addition, they added entire units and lessons that had been successful in the online course, and added many different kinds of activities that were successful online, particularly peer reviews and group projects. (The survey asked respondents to choose from a long list of possible changes, and to rate the amount of change for each on a Likert scale that ranged from 1 [*no changes*] to 5 [*major changes*]. There were a total of 40 choices, which were grouped into six areas. Detailed results can be found in the full report.)

The second most frequent set of changes (defined as those made by between 40% and 60% of respondents) involved the transfer of a range of strategies learned from teaching online to the face-to-face classroom. Most of these revolved around fostering better communication and included providing more detailed instructions, requiring class contributions from all students, providing more timely feedback, providing more written instructions, using class time more efficiently, changing how groups were organized, and providing additional ways to communicate with students. The changes made by less than 40% of the respondents tended to be in the area of adding multimedia, presumably because it can be difficult for teachers to access the resources necessary to make these changes.

Those who reported making the most changes taught math, science, social science, and foreign languages, while those teaching computer science/programming reported making the fewest changes. English language arts and arts/art history teachers were in the middle of the ranks of changers. It seems possible that the teachers in the first four disciplines made the most changes either because these are particularly difficult subjects to adapt to the online environment and so take a lot of rethinking (i.e., math, science, foreign language) or because the online environment opens up the range of resources available (i.e., social science, which was primarily history). Computer science teachers, on the other hand, while they also struggled to adapt their courses to a more constructivist format, found it more difficult to do so and tended to make fewer changes as a result.

In a series of open-ended questions, teachers were asked to expand four areas where the constraints and affordances of the online environment seem particularly salient and therefore most likely to affect subsequent classroom practice. Although these were optional questions at the end of a very long survey, between 80 and 85% (depending on the question) of those who had taught face to face after teaching online responded, suggesting that these teachers welcomed the opportunity to reflect on the changes they had made (as indeed some of them wrote in notes to the researcher). The four areas were class participation, independent learning, questioning techniques, and metacognition/reflection.

CLASS PARTICIPATION

In online classes, full participation in discussions can be mandated by requiring a certain number of posts a week, or by requiring that students respond to each other's posts. The online teacher can easily monitor the quantity and quality of the participation, including who is participating, when, and how often. This is more difficult in a face-to-face classroom, and is a

particularly knotty issue when it comes to group work and collaborative projects. For many of these teachers, teaching online had raised their awareness of the issue of participation and led them to devise ways of encouraging it in their face-to-face classrooms.

Some wrote about the specific techniques they now used for guaranteeing equal participation, sometimes drawing parallels to the online classroom. For instance, one wrote that she had students draw Popsicle sticks, which was "like seeing each name in a thread." Here are other quotes:

- "I am more aware of who is participating and who is not. I try to make more eye contact with those not as willing to participate, and to call on them to encourage them to participate more."
- "I give a participation grade to my face-to-face students now where I didn't before on-line teaching."
- "If anything, the online class requirements reinforced the understanding that all students need to participate in some way."
- "I am more aware now and insistent upon students participating in discussions. I use a seating chart and place dots beside students that have responded."
- "Yes, I require that my students are more actively engaged in my face-to-face classroom."
- "I haven't changed much since I've always required participation, but I do keep track of that more religiously."

Two described how they had used group projects to encourage fuller participation:

- "My students participate more frequently now in small group discussions where they must share their expertise. An example is literature circles, where each student in the small group is an expert in a different piece of literature but all members focus on the same question, such as the way authors reveal theme."
- "Absolutely. More smaller group work. Use teams with leader (coordinator) responsible for communicating with me. Bring groups together to share successes and difficulties."

And some did this directly, by importing the online discussion forum into their face-to-face classroom:

- "Yes, I accomplished this by creating a Blackboard supplement for my face-to-face classes and requiring participation."
- "I have incorporated online discussions into my classroom using LiveJournal.com."
- "I have one class where we actually do participate in an asynchronous discussion. I have one computer set up with the discussion posted, and students read the discussion requirements and make their posts. Students have responded well to this. I am trying to figure out how I can incorporate this type of discussion into more of my classes."

INDEPENDENT LEARNING

To be successful in online courses, students need to be self-motivated, well-organized, independent learners; taking an online course can help students to develop these characteristics (Lowes, 2004-2010). In addition, students cannot rely on their charm (or parental intervention) to negotiate over late assignments or poor work. For these teachers, teaching online had led to a subtle but potentially far-reaching shift in their attitude toward their face-to-face students, as teaching online made them realize that they could require more independent work. In fact, in terms of furthering constructivist teaching, this was probably the most important change they

made. The teachers' comments on independent learning showed how they brought the learner-centered focus they had developed online back to the face-to-face environment:

- "I took a stronger stand on independent learning and had higher expectations for my face-to-face students than I did before."
- "I assume kids can get info on their own now, where before, I didn't. I felt like I needed to spoon-feed them. Students who struggle doing that are identified early, and in most cases it is not a learning issue but one of discipline, organization, and/or motivation. A meeting with parents to develop a plan for learning has been very helpful with these students."
- "Yes, I require that my face-to-face students work more independently and often use exemplars from my online class in my face to face. I find I give instructions and examples and then allow the students to work more independently."
- "I think I've come to trust that kids can do more than I usually realize and that probably influences the way I design our learning time."
- "I incorporated more project-based learning where students are responsible for the quality and completion of the project by a deadline."
- "I like the technique of weekly assignments and then students having the responsibility to budget/manage their time accordingly. When possible I do this in my face-to-face classes."
- "I have given more assignments that require individual research, written questions, and independent research than I did before."
- "I have set up assignments that I began in my online classes to work in the conventional classroom... Instead of lecturing on the historical and cultural context of the story, they find it on their own."

This was not all smooth sailing, however, and some of the respondents struggled with importing independent learning into their face-to-face classrooms:

- "I find in a traditional classroom this is perhaps the hardest part. Students tend to waste class time if given liberty to work alone or unsupervised. Students in VHS have a rigid schedule, strict guidelines, and a more one-on-one relationship with their computer."
- "I find my face-to-face students still whine a lot and I eventually enable them."

QUESTIONING TECHNIQUES

To work well, online discussion forums need thoughtful facilitation, including careful attention to how questions are asked. Teachers wrote about how they imported what they had learned about how to ask questions into their face-to-face classrooms. They also wrote about how they were now more confident using open-ended questions with their students—and less likely to provide answers. Others linked this to larger changes in pedagogical approach, including a reduction in the amount of time spent lecturing and a shift to role as facilitator.

Many teachers described what they had learned about asking questions:

- "I learned online that my questions have to be very clear and free of ambiguity. We can always improve in this area. My students are getting better questions now."
- "I try to be much clearer about what I'm asking and then allow time for the students to process what I'm asking."
- "I think I have been able to ask direct questions or focus students on the topics more easily … so they have less misunderstanding about concepts."

- "I am much more detailed in my questions to make sure my students don't get confused. I also am better at asking follow-up questions to get my students to dive deeper into the content and to think critically."
- "As for questioning techniques, this is something I am constantly struggling with. I am working at asking more in-depth meaningful questions in my classes, but it is difficult for me to do. I think my skills have improved. My students are beginning to use higher level thinking skills a little more often, and are willing to give me more than a yes or no, or two or three word answer."
- "I no longer accept short oral responses from my students."

And others wrote about using open-ended questions:

- "More open ended questioning occurs in my face-to-face classes now as a result of online courses. It has encouraged my students to be more open and willing to answer in responses and not just one word answers."
- "My questioning techniques have become more along the line of reflection instead of just repeating back the factual information. Much more class time is devoted to critiquing situations and writing responses to events rather than to relating what the events were."
- "I believe that I now ask more open-ended questions and I am more content to allow the students to search for their own responses instead of providing them with mine. I am more relaxed about the need to 'cover' a great deal of material, believing instead that it's important to balance depth and coverage."
- "I have started to ask more open ended questions, allowing students to figure out more answers than I give them."
- "I have been more aware of the extension questions that are asked online. I

do spend more time with these types of questions in my face-to-face classes."

Some teachers linked this to larger changes in pedagogical approach in their face-to-face classrooms, and particularly to a reduction in the amount of time spent lecturing and a shift to role as facilitator:

- "I think that I assume kids can get info on their own more now than before online teaching. I now do much more formative assessment by questioning and having students demonstrate knowledge rather than give out knowledge. I don't lecture much at all now, and when I do, it is usually to clarify things student[s] have had to dig out on their own."
- "I use more student-centered teaching so I become the facilitator. [Gives example of group project] I then provided a group and individual grade, but included significantly their evaluations of specific stages and their final evaluations of self and peer. I had earlier taught research and required individual papers. This time, students told me they really understood the process."
- "Yes, I provide question to groups rather than just individuals."
- "I am more willing to act as a facilitator after teaching online. I am more willing to try not to control every aspect of the classroom. Students generally respond well when they have choices…. Without my online teaching experience, I don't think I would have been as willing to try a layered curriculum approach."
- "I have begun breaking assignments down into smaller chunks. I used to assign short-answer analyses to poems and passages from the reading. I have added a step to the assignment where they first isolate passages and specific words from those passages that make the points they are trying to defend. There was no reason I could not do this before I began teaching online, it is just

as a result of teaching online I started thinking in terms of smaller bits."

METACOGNITION/REFLECTION

Another affordance of the online environment is the time for thought or reflection that is a result of the asynchronous nature of the discussion forum. Although posts can certainly be off-the-cuff, in general the fact that they are written, and often graded, forces students to think before they write. In addition, well-constructed questions can lead to reflective answers. Most of the teachers who reported changes in this area wrote about how they were now building more time for reflection into assignments in their face-to-face classrooms—not only into writing assignments, but also into oral discussions as well:

- "I allow more opportunities for students to reflect on their work and give me private assessments of the class/their own progress, i.e., private threads. Often it is as simple as asking students to put something they like on one side of a file card, and something to be improved on the other side."
- "More use of journals and reflective portfolios; this is something I knew I should do more of anyway but VHS has pushed this issue with me."
- "Yes, after every unit I have the class do a reflection writing piece."
- "I now require all students to respond in writing to a daily 'exit question' related to the day's work. My awareness of the role of reflection in learning has definitely increased since I began teaching my online course."
- "Tickets Out the Door concept … TODs … Students will summarize the day's activities in a TOD before they leave the classroom each day. This is very similar to a daily posting activity. Also, it allows me to evaluate student understanding."

- "Yes ... essentially I just cut out some of the busy work...worksheets, needless vocab and writing assignments...and made the assignments we do more meaningful and require more reflective thought."
- "Assigning thought questions for overnight/longer consideration. Giving free writing time in class. Giving a list of questions at the beginning of a unit, then asking questions off the list on the test."
- "The discussions online also have the added benefit of a person going back and responding later. I now add this to my seminars by allowing students to return to a previous question if they have taken notes during a seminar."
- "I am more aware of reflection time when asking questions within my face-to-face courses."
- "I value the wait time more and have the students work in groups more than before."

CONCLUSION

While there is now a considerable literature on the characteristics of successful online courses and on how to bring good pedagogy to the online learning environment, there is as yet little research on the effect of teaching online on the teachers who teach there and even less on the effect of teaching online on teaching in the face-to-face classroom. This study, although qualitative and confined to one setting, suggests that a teacher's migratory journey to and from the online classroom can transform that teacher's face-to-face classroom practice in subtle and important ways.

At the same time, it raises a number of questions, some for future research and some with practical implications. One question is central to a better understanding of what an online classroom is and how it works: How much of the change these teachers reported can be attributed

to the general constraints and affordances of the online environment—particularly distance and asynchronicity—and how much to other factors, such as the specifics of the VHS virtual classroom model and, most important, to the VHS approach to professional development, or even to the self-selected nature of this group of teachers? It seems likely that the professional development experience was particularly important, but more research is needed to see if this holds true for other online teachers.

Finally, there are practical questions that are worthwhile considering as the field of online teaching grows. Can we, and should we, find ways to develop more of these migratory teachers—for instance, by encouraging, or even expecting, teachers to teach in both venues and, equally important but somewhat different, by making this a reflective practice? Looking at the issues another way, can we, and should we, deliberately find ways to encourage the transfer of the more successful aspects of online pedagogy back to the face-to-face classroom, proactively capitalizing on what these migratory teachers have learned by treating them as resources for their face-to-face classroom counterparts? This research, exploratory though it was, suggests that giving more teachers the opportunity to teach online, as well as deliberately encouraging those who do so to share what they have learned with their fellow classroom teachers, could provide an opportunity to strengthen teaching in both environments.

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Tearing Down the Walls
Creating Global Classrooms Through Online Teacher Preparation Programs

Allen C. Grant

INTRODUCTION

Flexibility, accessibility, and enhanced instructor/student communication are commonly cited as the primary benefits of distance learning (Choy, McNickle, & Clayton, 2003); however, a new benefit is quickly taking center stage. The proliferation of cultural and global awareness is an advantage to online learning that cannot be overlooked. Even the nation's leadership has taken notice. President Barack Obama has included the preparation of students to compete in a global economy as a prime tenet in both

his *Race to the Top* educational stimulus act (U.S Department of Education, 2009) as well as his proposed reauthorization of the Elementary and Secondary Education Act (U.S. Department of Education, 2010), further strengthening long-held beliefs that global awareness is one of the hallmarks of modern educational thought and reform (Postman, 1995). This recent revelation is not just idealistic. Evidence exists that America's classrooms are slowly becoming less culturally insular and more reflective of student interests and ideals. Preservice teacher education delivered online better positions classroom instructors to prepare our nation's digital youth for the emerging global community as compared to traditional brick and mortar teacher education programs.

FAILING TRENDS IN GLOBAL EDUCATION

Compelling statistical trends support the need for improved global education in America's schools. In 2006, native non-Hispanic Whites were the minority among students enrolled in kindergarten through the 12th grade in Western states. Furthermore, in 2007, immigrants accounted for one in eight U.S. residents, with 10.3 million having arrived since 2000 (Camarota, 2007). Changing domestic demographics combined with the proliferation of the digital age has increased the interaction between people of different cultures to a degree never imagined. The commercial

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sector has taken notice as well. In Ohio, business and industry leaders have partnered with the State Board of Education in calling for increased curricular emphasis on critical thinking skills, language acquisition, world geography, and politics. Their goal is simple: to place the state in a strategic position to be globally competitive (Howe, 2008).

Unfortunately, the current report card on global education in American schools is poor. In 1994, the National Council for Social Studies established a broad set of standards related to global interdependence, but their incredible forethought failed to take hold. Only a few states and school districts initially established graduation requirements related to global education. The National Center for Education Statistics showed that only seven states required either world history or world geography for graduation in 2002. Today, only a slight majority of states require world history for graduation (Rabb, 2009), with national assessment standards not on the assessment radar until 2018. Foreign language studies are also bleak. Only 16 states require a foreign language for graduation or have a plan for its future implementation (National Center of State Supervisors of Languages, 2008). Complex cultural curriculum is lagging as well. According to the College Board (2007), student scores on Advanced Placement exams that assess global issues are marginal at best. On a scale of 1 to 5, with 5 being the highest, the mean grade on the European history exam is 2.82, while the mean score on the human geography exam is 2.95.

THE DIGITAL CLASSROOM OF TODAY—CHANGING PRACTICES

Despite our historical failure to teach a global curriculum in America's schools, our students are becoming cultural consumers right under our noses. Today's modern student is firmly entrenched in twenty-first century social technology tools. Students are collaborating on cell phones, personal digital assistants and, much to the tech coordinators' bane, in school's computer labs. Twitter, Facebook, and YouTube are some of the social tech tools that increasingly fill our youth's busy schedules. Other tools are created daily, with even more cutting-edge technologies on the horizon. The time has certainly arrived for us to harness our youth's digital energies and make social networking a safe, fulfilling, and viable part of our educational fabric. Educators need to learn alongside their students, rather than continue to ban, block, and ignore innovative technologies that are available to anyone with a high speed Internet connection.

Fortunately, Web 2.0 technologies are beginning to take hold in some American classrooms with innovative and risk-taking teachers opening their classroom doors and their student's minds to an extremely dynamic new world. These students are able to take a cyber leap beyond traditional textbooks and teacher lectures, "virtually escaping" their traditional safe havens to make informed opinions and, quite possibly, create new ideals. In the past, a fortunate few participated in global field trips and cultural exchanges. Now, all students are able to develop global and cultural awareness without leaving their desktops. The Partnership for 21st Century Skills (2009) has identified a global framework that can help ensure success for today's students. This framework includes academic content focus on critical thinking and problem solving, communication, creativity and innovation, collaboration, information and media literacy, and contextual learning. Here are just a few examples that embrace the partnership's vision of what a modern classroom can look like.

- A second-grade classroom teacher in Wichita opts to hold an online Vyew web-meeting with a zoologist at the Serengeti National Park. Through this verbal and visual exchange, students are

able to quiz the researcher on lion migration movements, view the specifics of a wildebeest feeding program, and learn about human/animal interactions in this unique corner of the world.

- Eighth-grade students from the New Orleans 9th Ward create a collaborative slideshow on the levee structure with students in the Netherlands via Google Docs. Using built-in instant messaging technology, the American students learn first-hand how advances in technology can assist communities hoping to rebuild vanishing coastlines. At the conclusion of the exercise, both groups create a shared picture book using the CAST UDL Book Builder.
- A high school film studies student in California and a high school senior in Iraq create a collaborative video with JayCut on postwar rebuilding efforts.

Some forward-thinking educators have seen the value of digital global education and are bringing these experiences out of their classrooms and creating districtwide global experiences. Brought forth out of a desire to properly educate and support a growing local immigrant population or through grass-roots efforts by local citizens, diverse districts such as Fairfax County, Virginia, and Jefferson Parish Schools in Louisiana are embracing global curricula through formal processes such as the International Baccalaureate program. Currently 1,037 American schools take part in one of three International Baccalaureate programs (2009), but at a staggering annual cost of between 25 and 50 thousand dollars per year.

THE CASE FOR ONLINE TEACHER EDUCATION PROGRAMS

With formalized global education programs fiscally out of reach and classroom programs operating on a murky fringe, the key to global education boomerangs back to the source, teacher education programs.

Clearly, colleges of education not only need to change what they teach (global education, foreign language integration, integrated studies) but how they teach. As illustrated, K-12 classrooms are increasingly becoming either a dynamic microcosm of their communities, or are becoming globally focused through digital connections. In contrast, consider the typical university-based teacher education program. These programs are predominantly comprised of either middle class females of Euro-American descent (Zumwalt & Craig, 2005) or, in the case of historically Black colleges and universities, of middle class females of African American descent. Both populations are limited in cross-cultural experiences, are predominantly monolingual, and are culturally encapsulated from each other's experiences as well as the realities of the modern-day classroom. Traditional methods courses that teach technology out of context are the rule, rather than the exception.

INCREASED TECHNOLOGY COMPETENCY

Clearly, online teacher education programs have features that strongly position them for preparing teachers for global education. Primarily, online teacher education programs are a natural vehicle for illustrating authentic uses of instructional technology, with their preservice teachers becoming experienced in the technologies found in today's classrooms. Many online classrooms incorporate Web 2.0 tools like blogs, wikis, webinars and other collaborative technologies through an online learning management system. Participants can become proficient in the advanced features of word processing, presentation, and citation software. They learn to troubleshoot technology and build a catalog of technology best practices to be used in their own classrooms. Online participants have opportunities to find value in collaborative technology, experiencing

firsthand this effective, interesting, and enjoyable approach to education.

SUPPORT FOR MARGINALIZED POPULATIONS

Online programs serve and support marginalized populations: those who work full time, those who work evenings, those who live great distances from population centers, those with young children, and those who are citizens of or expatriates in foreign countries. All would be either unable to attend a face-to-face classroom or placed at a severe disadvantage if required to do so. Unlike the flagship and regional universities that typically educate 18- to 22-year-old undergraduate students fresh out of high school, these online pre-service teachers are able to come to their digital classroom with a resume. Some are working professionals who are positioned to bring their unique experiences to their peers and their students. Others are current and former members of military service with vast global backgrounds who are setting their sights on a civilian career. Most would agree that having students learn modern world history from a retired Marine officer with 15 years of service in 13 countries could lead to a more vibrant, global classroom than one taught by a twenty-something armed with a degree and a methods course.

UNIQUE LEARNING EXPERIENCES

Online programs expose preservice teachers to unique learning experiences not typically found in face-to-face classrooms. Online discussions allow for students of all races and creeds to weigh in on controversial topics they may otherwise choose to avoid in a traditional setting. For example, in my online classroom management course, a teacher's aid in suburban Atlanta learned to create a culturally competent classroom for her struggling Filipino students through advice provided by her Hawaii-based classmate. Rather than learning this in isolation, the two teacher practitioners were able to engage in online discussions that helped the Atlanta teacher understand the unique family dynamics found with immigrants from the Philippines. In another course, a group of veteran teachers participating in a synchronous chat activity were able to advise an Illinois-based preservice teacher who was struggling with racial imbalance in her child's individualized educational plan meeting. The group was able to freely discuss the matter, provide insight to the individualized educational plan process and help the individual form an action plan for dealing with the problem.

I also find that the nature of the online learning experience inspires some of my students to forego traditional classroom positions and opt for careers as online teachers. In many cases, online instruction is a field generally learned on the job or through one or more courses offered by the provider. Rice and Dawley (2009) found that 62% of online instructors had little or no experience in online pedagogy. Participants in an online preservice program not only learn standard classroom-based pedagogical practice, but also immerse themselves in the essential competencies for teaching and learning online, including communication skills, time management, and knowledge of the course delivery platform (Watson, 2007). Aren't these some of the skills we try to instill in our nation's youth?

CONCLUSION

Clearly, the world is on a dynamic digital path that educators are failing to embrace. Our curriculum and classrooms reflect a nineteenth century insular mindset that has failed to promote social, global learning. The school of today is a school without walls, boundaries, or set curriculum. The students of today are digital students. They are educated online, with or without
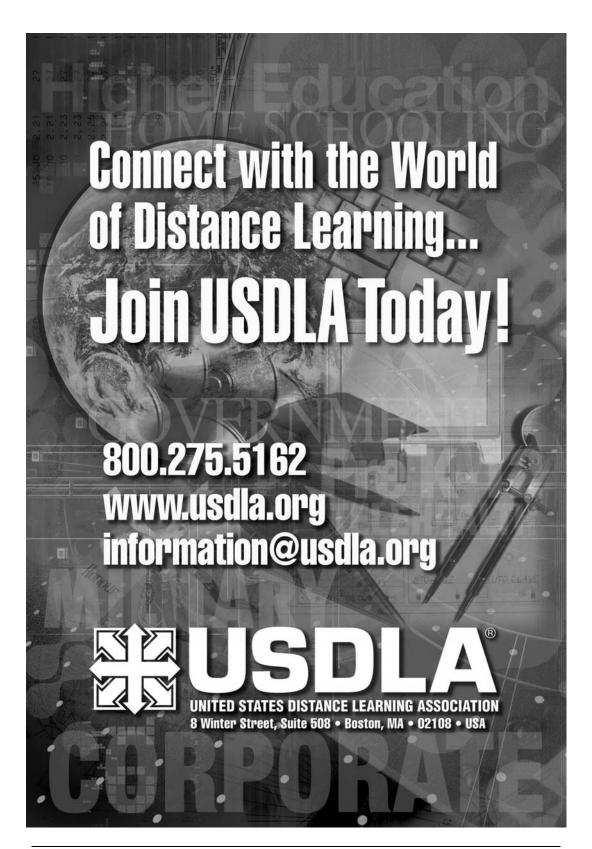
a teacher's guidance. They are innovative, and our teachers need to adapt. The key to adaptation is becoming like them. Modern teacher education programs must embrace twenty-first century learning. They must draw teacher candidates worldwide and educate them in an innovative, participant driven environment. They must be online.

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"MODERN TEACHER EDUCATION PROGRAMS MUST EMBRACE TWENTY-FIRST CENTURY LEARNING. THEY MUST DRAW TEACHER CANDIDATES WORLDWIDE AND EDUCATE THEM IN AN INNOVATIVE, PARTICIPANT DRIVEN ENVIRONMENT. THEY MUST BE ONLINE."

Meeting the Needs of Gifted Students Through Online Programs

Christine L. Weber and Donnajo Smith

INTRODUCTION

In an age so dependent on technology, online courses, programs, and schools have become the latest venue in serving the educational needs of children and adults. More than half of the states now have virtual schools and others are being developed each year. There are even states, such as Ohio, where virtual schools are developing programs, such as the Advanced Learner Program, specifically for gifted learners. This leads us to question whether online courses, programs,

and schools meet the needs of gifted learners, and if so how might that best be accomplished?

WHO ARE THE GIFTED?

In order to address that question, it is important to begin the discussion with the characteristics of gifted learners. There are varied collections of descriptors and it is helpful to think about gifted learners in light of their unique characteristics as they pertain to cognitive, social, and emotional differences. No two gifted children are alike. They have different learning styles, personalities, likes and dislikes, abilities, backgrounds, and experiences. Some of the more common descriptors include the ability to make connections, rapid learning, superior analytic ability, keen observation, logical thinking, ability to manipulate symbol systems, advanced language development, overexcitabilities (inborn intensities indicating a heightened ability to respond to stimuli), keen power of observation, and emotional intensity (Davis &

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Rimm, 2004). It is essential that teachers and parents recognize and understand these characteristics to best meet the educational needs of gifted learners.

WHAT ARE THE EDUCATIONAL NEEDS OF GIFTED LEARNERS?

The characteristics of gifted learners imply specific instructional needs in the classroom. To provide appropriate and challenging educational experiences for gifted students, educators need to consider differentiating instruction by varying the:

1. Content: Instructors differentiate the sources students apply to learning by utilizing multiple resources and examples in various media formats;
2. Process: Instructors differentiate how students will learn by planning and/or structuring various learning activities and student groupings; and
3. Product: Instructors differentiate the output (how students demonstrate what they have learned) by providing different options for completing assignments.

Instructors should also vary the content, process, and product based on their students' learning profile (learning style), interest (motivation), and/or readiness (background knowledge) (Tomlinson, 1999).

DIFFERENTIATING THE CURRICULUM AND INSTRUCTION FOR GIFTED LEARNERS: KEY PRINCIPLES

In order to consider the appropriateness of online courses, programs, and schools for the gifted, we need to bear in mind what is needed in light of differentiating for gifted and talented learners. The following are key principles guiding effective differentiation (Tomlinson & Cooper, 2006) with applications to the gifted learner that include references to the National Associa-

tion for Gifted Children (NAGC) *Pre-K-Grade 12 Gifted Program Standards* (2000):

- **The teacher is clear about what is significant in the subject matter.** Content for gifted learners needs to consist of more complex concepts and abstract ideas. Such content can be modified through the use of acceleration, compacting, variety, reorganization, increased depth, complexity, and flexible pacing. The NAGC Standards for Curriculum and Instruction (NAGC, 2008) suggest that: regular classroom curricula and instruction must be adapted, modified, or replaced to meet the unique needs of gifted learners; the instructional pace must be flexible to allow for the accelerated learning of the gifted student; and educational opportunities for subject and grade skipping must be provided.
- **The teacher understands, appreciates, and builds upon student differences**. Since no two gifted children are alike, it is imperative that a positive learning environment is created to support a diversity of learners.
- **Assessment and instruction are inseparable**. Pre-assessment informs the teacher of the gifted student's interest, preferred ways of learning, and prior knowledge about the subject matter. Formative assessment allows the teacher to continue working with particular strengths of students. Summative assessment provides data about student growth and the need to refine future instructional plans by the teacher.
- **The teacher modifies content, process, and product in response to student readiness, interest, and learning profile.** Students differ in their readiness to learn, in their particular interests, and in how they learn (Tomlinson, 1995; Tomlinson et al., 2003). Readiness to learn refers to a student's proximity to a learning goal or task. Teachers need to push a student into his or her zone of proximal

development and support learning by providing a slightly more complex task with a goal of mastering new learning and reaching independence. Considering student interests helps connect the student to learning. When students are more interested in what they are learning it is more likely that their motivation will be increased. Determining the learning preference or learning profile for students is also important. The term learning profile refers to a student's preferred mode of learning that can be affected by a number of factors, including learning style, intelligence preference, gender, and culture. Teachers who relate to how their students best learn help to ensure learning efficiency. Tomlinson et al. (2003) suggest that teachers who work toward understanding the learner's needs set their students up for success.

- **All students participate in respectable work.** The NAGC Standards for Curriculum and Instruction (NAGC, 2008) support that learning opportunities must consist of a continuum of differentiated curricular options, instructional approaches, and resource materials. All tasks should be engaging and challenging for students encouraging high levels of thinking with a focus on essential understandings.
- **Students and teachers collaborate in learning**. Emphasis on gifted students becoming self-directed learners encourages responsibility in the learning process.
- **The teacher balances attention to individuals and to the class as a whole.** Gifted students participate in a community of learners where individual needs are balanced with the needs of the group or the class as a whole.
- **Flexibility is the hallmark of a differentiated classroom.** Modification of learning experiences for students requires the flexibility of various classroom ele-

ments including pacing, timing, resources, grouping, and so on.
- **Differentiation must always be a "way up," never a "way out."** High expectations support the need to extend the capabilities of students along with support systems that provide the foundation for success.
- **Goals of a differentiated classroom are maximum individual growth and success.** Emphasis is placed on self-growth versus competition within the classroom. Gifted students strive to challenge themselves to be more proficient.

CAN ONLINE PROGRAMS MEET THE NEEDS OF GIFTED LEARNERS?

According to the Center for Digital Education, in their report *Online Learning Policy Survey: A Survey of the States* (2009), 25 states now run statewide online initiatives. This is an increase of 10 states with such initiatives in 2008. Thus, it is imperative that educators and parents be concerned about whether or not such online opportunities are available for their students and are able to meet the needs of gifted learners. Although Milman (2009) discusses how content, process, and product of instruction can be differentiated, no attempt has been made to determine the alignment or fit of the online standards. Little research has been conducted on the use and effectiveness of distance learning with gifted students. Wallace (2009) recently studied distance learning outcomes for gifted students who ranged in ages from 5 to 17. The study suggests that distance education can be an effective approach to accelerate or enrich the academic opportunities of gifted students. Because distance learning programs vary greatly, this finding cannot be generalized.

Determining alignment using International Association for K-12 Online Learning (iNACOL) *National Standards for Quality Online Programs*, the *National Standards for Quality Online Teaching*, or the *National*

Standards for Quality Online Courses, taking into consideration the components and key principles of differentiation outlined in this article is crucial to this evaluation. Table 1 provides an overview of the similarities and differences outlined in the *Quality Online Programs* (available at http://inacol.org/research/nationalstandards/index.php) with the *Pre-K-Grade 12 Gifted Programs Standards* developed by the National Association for Gifted Children in 2000 (available at http://www.nagc.org/uploadedFiles/PDF/Standards_PDFs/k12%20GT%20standards%20brochure.pdf). Both sets of standards have been designed to specify approaches of high quality and establish standards for excellence.

While considering the comparisons in Table 1, a remaining major concern is determining the appropriateness of online programs for varying grade levels. Early programs focused on secondary students only. Increased implementation of virtual programs, however, has roused the interest of parents of younger students who see the online academies as a strategy for accelerating instruction. Many school districts have begun to examine the virtual classes as being a cost effective method for increasing student options.

Florida has led the way with groundbreaking legislation that originally funded the Florida Virtual School (FLVS) as a grant-based pilot project in 1997, which led to the state's first Internet-based public high school. The two pilot programs (FLVS and the Connections Academy) were funded in 2003 with specific guidelines including:

- All curriculum and course content must conform to Florida Sunshine State Standards.
- All students in Grades 3-8 must take the state assessment tests.
- All Grade K-2 students must participate in locally-administered assessments.
- All teachers must be appropriately certified.

In 2008 the Florida legislature created the School District Virtual Instruction Program, requiring each school district to offer a virtual instruction program for students in Grades K-12 in the 2009-10 school year. Information about these programs is available at http://www.fldoe.org/schools/virtual-schools/districtVIP.asp. There are some consistent concerns about the relevance of the programs for gifted learners:

- The continued need for parent involvement.
- The assurance that the teacher has the core content and technology expertise.
- Is a program focused on independent work conducive to meeting the needs of students who may already choose isolated lives?
- How do we assure that the courses are differentiated with integrity and the quality of content to be appropriate for advanced learners?

Ohio's requirement for virtual courses specifically for gifted students indicates the online programs must be written into the student's educational plan, align with the student's area of gifted strength and area of identification, have explicit eligibility criteria, and be differentiated for students who are gifted.

Most virtual programs are popular because they offer "courses not otherwise available at the school" or because they meet the "needs of a specific group of students" (International Association for K-12 Online Learning, n.d.). These are positive rationales for programs or courses for students who are gifted. Gifted students are among the most likely to be underserved and insufficiently challenged by the general curriculum.

Online learning is a reform of education. Students who are gifted are drawn to the virtual programs because it allows them to work on their own schedules, adjust the pace as needed to suit their learning style, and be flexible about adjust-

Table 1.   Comparison of Online Standards With Gifted Program Standards

iNACOL Quality Online Program Standards	NAGC Gifted Program Standards	Comparisons
Institutional Standards address vision, mission, philosophy, and beliefs.	**Program Administration and Management** includes the establishment of a systematic means of developing, implementing, and managing services.	• Planning is emphasized in both sets of standards. • Both sets of standards indicate a need for leadership and trained staff, but no specific reference to training in gifted education is found in the iNACOL standards. • Although there is reference to address requirements related to resources for effectively and efficiently serving students and faculty in both sets of standards, there is no reference made in iNACOL "in relation to the diverse needs" of learners other than to provide accommodations to students with disabilities. Nor is a reference to a linkage between gifted education and general education suggested. • Both NAGC and iNACOL refer to constituents. NAGC advocates a working relationship with constituents and iNACOL refers to involvement of key stakeholders to be included in the mission statement and constituents informed of program goals. • iNACOL asserts that accommodations (no mention of modifications) are available to meet a variety of student needs (students with disabilities), not necessarily including the gifted student.
Teaching and Learning Standards focus on how an online program develops or chooses its curricula, how the teachers deliver that curriculum, and how students' progress is assessed. Some virtual programs use pre-assessment as a guide to placement. State-approved virtual programs typically are approved after evidencing they follow state standards.	**Curriculum and Instruction** includes curricular and instructional opportunities directed to the unique needs of the gifted learner. **Program Design** requires comprehensive services based on philosophical, theoretical, and empirical support.	• iNACOL references accommodating different learning styles. • Both sets of standards emphasize a comprehensive and systematic approach to teaching and learning. • The emphasis on assessment of student performance in the iNACOL standards implies that grade or subject skipping as identified in the NAGC standards would be available. • Differentiated instruction and curriculum are specifically evident in the NAGC standards. • Instruction supported by research and best practice is indicated in both sets of standards. • Adjustment of student schedule, time, and place limitations is considered in iNACOL standards.

(Table continues on next page.)

Table 1. (Continued)

iNACOL Quality Online Program Standards	NAGC Gifted Program Standards	Comparisons
Evaluation Standards are utilized to verify the program is meeting its intended purposes and identify where improvements can be made.	**Program Evaluation** is the systematic study of the value and impact of services provided.	• Both sets of standards emphasize program evaluation for improvement of services. NAGC specifically references services for gifted students.
Most state-approved virtual programs expect that teachers meet state requirements for certification in the course content, not specifically for providing gifted services.	**Professional development**— gifted learners are entitled to be served by professionals who have specialized training in all aspects of gifted education.	• Both sets of standards indicate the need for support services, including guidance services. • Both sets of standards emphasize the need for professional development; an emphasis specifically related to educating gifted learners is referenced in the NAGC standards.
Support Standards address academic, administrative, guidance, and technical services.	**Socioemotional guidance and counseling** establishes a plan to recognize and nurture the unique socio-emotional development of gifted learners.	
No reference to identification of gifted learners or an indication that if the parent requests designated "gifted" classes, they are available. Some virtual services note that they are in a position to recommend referral for gifted services for a student who is a high achiever based on performance in the courses.	**Student identification**—gifted learners must be assessed to determine appropriate educational services.	• Lack of attention to identification in the iNACOL standards may suggest a potential conflict between availability of classes through online options and some state requirements for eligibility for gifted services.

ing the schedule and demands to suit their own preferences—options not typically available in traditional education programs. In particular, online learning fosters pre-assessment, which has always been advocated for students who are gifted. Pretesting determines what the student already knows and indicates educational gaps so education can be personalized. The student is encouraged to explore and seek new information, often at higher levels.

CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

As evidenced in Table 1, while virtual school programs may not consciously be avoiding any reference to gifted and talented learners, it will take a conscious effort to include language in program standards related to this specific population of learners.

There has been little research conducted on the use and effectiveness of distance learning with gifted students. It cannot be assumed that the nature of the online learning environment is an appropriate match for gifted learners. Although the availability of courses when the school cannot otherwise offer them is a positive factor for many gifted students, there are still considerations that merit further investigation.

• Can instruction be effectively differentiated for gifted learners in an online learning environment?

- How might a better alignment or fit of the online course and/or state standards and gifted standards be made?
- What impact does the isolation of the student taking one or more virtual courses and working independently have on the student socially and/or emotionally?
- What opportunities can online programs provide for a gifted learner to work with other gifted students?
- Can the learning needs of students who might be twice exceptional (gifted and learning disabled) be met in an online learning environment?
- Also worth a closer examination is the intensity and rigor of virtual courses as compared to similar courses. Are instructors of the virtual programs as expert in the content area as they must be in the technological aspects of facilitating the course? How well prepared are students for eventual assessment by the state and/or national assessments?
- What role, if any, can teachers in online learning environments play in identifying gifted learners?
- What administrative and/or teacher training is necessary for those working specifically with gifted students in online courses, programs, or schools?
- What role do parents play in the education of their gifted child in online learning? What support and resources are offered to gifted learners and their parents in an online learning environment?
- How might support services be improved for gifted learners in an online educational environment?
- Are program services to gifted children evaluated differently in an online learning environment?
- How can online and gifted educators collaborate to increase the effectiveness of the learning experience for the gifted child?

Finally, it is reassuring to note that there are similarities in the philosophies espoused in the two sets of standards. This common ground provides the basis for further discussion related to the questions raised above. With that in mind, meeting the needs of gifted students through online programs can result in a positive outcome for all those involved.

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Attendance Policy and Truancy Procedures of an Online School

Stacy A. Bender

INTRODUCTION

The definition of truancy at an online school does not mirror the definition of truancy at a traditional school. At the traditional school, students arrive at school or do not arrive at school, sit in classes or do not sit in classes, and either attend school or are considered truant if their lack of attendance does not fit into the excused categories provided by the laws of the students' states of residence. Attendance is considered physically sitting in a seat for the determined number

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of minutes or hours that the school holds academic programming. State legislators have written truancy laws with traditional schools in mind; however, students attending online schools must adhere to these laws as well. This article will examine how these laws apply to online students and the role of online schools in the enforcement of these laws. In addition, this article will advocate for online schools to take the lead in providing a clear definition of attendance as well as to cooperate and to collaborate with state departments that oversee truancy enforcement. One should note that the information in this article illustrates these concepts using Minnesota truancy laws and the policies and procedures of Wolf Creek Online High School, an online hybrid charter high school in Minnesota.

TRUANCY LAWS AND ONLINE STUDENTS

Truancy laws and definitions differ in each state. In Minnesota, Statutes 120A.22 and 260A require that, once they enroll in school or by age 7, children must attend school every hour of every day through the age of 18 unless they are formally withdrawn with parental consent after age 16. The law grants schools the ability to define what is considered an excused absence and what is considered an unexcused absence. The letter of the law in Minnesota allows

for an absence to be one period of one day (but not seven periods in the same day). Each of the 87 counties in Minnesota differ in their execution of these statutes; some place students on probation while others provide social service supports in order to assist the students in reestablishing acceptable attendance. Regardless, responsibility for the initial reporting of truant students falls on the schools that the students attend. Once students accrue seven unexcused absences or more, their schools must file truancy petitions in the students' counties of residence. This action forces the schools, the county representatives, and the families of truant students to become connected in a web meant to support students' improved attendance at school. Whether they are public school students, nonpublic school students, or home-schooled students, the statutes are clear that all students must comply with the compulsory instruction laws.

Over the course of the past 5 years, Wolf Creek Online High School's school board has wrestled with creating a definition of attendance that will translate into understandable terms for those in the various state departments who enforce the statutes. In the traditional setting, there is no need for schools to create a definition of attendance because students either attend school or not. If the students do not physically enter the school building and attend classes, the students are not attending and may be subject to truancy proceedings. Even if the students sleep through the entire day at school, turn in no work, and accrue no credits toward graduation, traditional schools consider those students to be in attendance by virtue of being there. This differs from the online setting. Because students at Wolf Creek work from a distance for a minimum of 3 days each week, their physical presence in a building does not occur on those days. This obstacle required that the school board and staff think creatively in order to construct a method by which attendance could be tracked and then translated into hours and days in order to communicate in the common terms of those who enforce the statutes. Although the Wolf Creek policy is recognized by most county programs as worthy of modeling, each online school is unique and needs to create its own definition of attendance and truancy.

DEFINITIONS OF ATTENDANCE AND TRUANCY

After much collaboration among staff members, the Wolf Creek school board adopted Policy 503—Student Attendance on January 13, 2009. The policy can be found under required school board policies on the school's website: trio-wolfcreek.com. Because students can work at their own pace throughout the term, the staff determined that the policy should define attendance time in relation to work completion. Each student should submit, in quantity and quality, a minimum of approximately 25% worth of school work each week. The staff determined this percentage based on final grades of C– divided by 9 weeks in each quarter term. The policy does allow for flexibility within these limits. Students may choose to complete this entire percentage on one class as they focus on one subject for the week; alternatively, students may choose to complete this entire percentage spread out over all of the classes in which they are enrolled for the term. This breaks down into 5% for each day of the 5-day school week. Therefore, the policy considers students in attendance 1 day for each 5% completed; conversely, students are absent 1 day for each 5% not completed out of 25% minimum in a week (see Table 1).

Because the Minnesota statutes allow schools to define the truancy vocabulary words (attendance, unexcused absence, excused absence, etc.), it is the responsibility of each online school in the state to provide this definition in a way that county officials can understand. Each state differs;

Table 1.

	Week 1 Percent of Work Completion	Week 1 Days Absent/ Potentially Truant
Student A	5%	4 days
Student B	10%	3 days
Student C	35%	0 days

Table 2.

	3 Days of Truancy	4 Days of Truancy	7 Days of Truancy
Action by Wolf Creek:	Letter of warning sent home	Student/parent meeting	Truancy petition in county of residence

therefore, it is imperative that online schools investigate the statutes in their states in order to not only have knowledge of these policies but to also adhere to these policies by constructing an attendance policy that means something to social workers, probation officers, and judges.

THE ROLE OF ONLINE SCHOOLS IN TRUANCY ENFORCEMENT

After the Wolf Creek school board passed its attendance policy, the staff developed the enforcement procedures. Once the students' advisors calculate the number of absent days, the advisors then determine whether the absences fall into the definition of excused or unexcused. Minnesota statutes require that school determine this classification prior to engaging students in the truancy process. After determining how many days of unexcused absences students have, the advisors contact the truancy coordinator to assist in an intervention process which Minnesota statutes also require that schools take through letters, phone calls with parents, and in-person meetings with students and parents. If a student reaches four days of unexcused absences, the truancy coordinator requires that the student and parents meet with the advisor and the truancy coordinator in

person in order to devise a plan that supports the student's increased attendance. At this meeting, the truancy coordinator typically questions the student and parents about the background causes of the attendance issues and may suggest some interventions to assist the student in successful work completion. If the student continues to accrue unexcused absences after this meeting and an attempt at interventions, the truancy coordinator files a truancy petition in the county of the student's residence, provides documentation for the county officials, and may attend court in order to support the truancy petition (see Table 2).

Online schools need to determine procedures for the process of enforcing the truancy statutes of their states. While it may seem like a difficult task, enforcement of truancy statutes is not optional. This is imperative, especially for online schools that receive public funding, in order for the general public to see online schools in a positive light. In addition, online schools need to come to grips with the fact that they may lose students by following the truancy laws. Regardless, online schools need to be seen as schools that comply with all state statutes, not simply the ones that are comfortable or easy to follow.

COLLABORATION WITH COUNTY OFFICIALS

Once Wolf Creek's school board approved Policy 503, the director appointed a truancy coordinator to facilitate the tracking of students, the pretruancy intervention procedures, and the filing of truancy petitions. The truancy coordinator has networked with county officials throughout the state of Minnesota in order to gain an understanding of each county's procedures and to build relationships with county officials in the counties in which significant numbers of students reside. This has allowed the truancy coordinator to communicate with people around the state about online schools and the place online schools have in our country's evolving educational structure. Chisago County social workers actually refer students to Wolf Creek Online High School when the setting could alleviate the issues behind the truant actions and could allow for the student to experience success.

Online schools need to have a "face of truancy." In the same way that school officials do not enjoy having to work with too many different county officials, those county officials do not enjoy having to work with too many different school officials. If online schools would each have a single truancy coordinator or several coordinators who consistently work with the same counties, the county officials would be thrilled. Online schools need to realize that public officials such as judges, county attorneys, social workers, and probation officers assist in the creation of public policy and state statutes. Cooperating and collaborating with public officials will not only assist our students and their success but will also provide the background for positive relationships with those who influence those who write laws that impact even online schools.

STUDENT EXAMPLES

Audra (not student's actual name) was a student in a St. Paul public high school and resident of Ramsey County. She became truant due to recurring illnesses in her own life and in the lives of family members. The Ramsey County attorney's office suggested that she enroll at an online high school in order to avoid continued truant behavior. At first, the Wolf Creek system of attendance caused Audra to continue to exhibit truant behaviors as she adjusted to the different approach. After a month of struggling, Audra was able to successfully complete work at the required pace, and the attorney's office dismissed the truancy petition against her and her family at the end of two successful months. Audra will graduate from Wolf Creek in June 2010. She plans to attend a community college and then may go on to a 4-year university.

Jason (not student's actual name) had attended four different high schools in the 2 years prior to enrolling at Wolf Creek as a 10th-grade student. He and his family moved around a lot due to the economy and experienced frequent homelessness. Each time he changed residences, he changed schools. Truancy followed him as he changed districts, counties, and schools. Chisago County social workers suggested that he enroll in an online school so that he could stay in the same school regardless of where he lived. Jason's attendance has improved, and Wolf Creek anticipates that he will be dismissed from truancy case management by the end of this school year.

Frank is a freshman student who started at Wolf Creek in fall of 2009. During the first quarter, he completed work weekly, making adequate progress each week. At the beginning of the second quarter, Frank's progress slowly deteriorated. At the same time, his parents were going through a very difficult divorce that was emotionally taxing on the entire family. One week he would make adequate progress, the next he would not. The truancy coordinator at Wolf Creek mailed home warning letters at the 3-day truant mark and the 4-day truant mark. The 4-day letter requested that Frank and his parent/
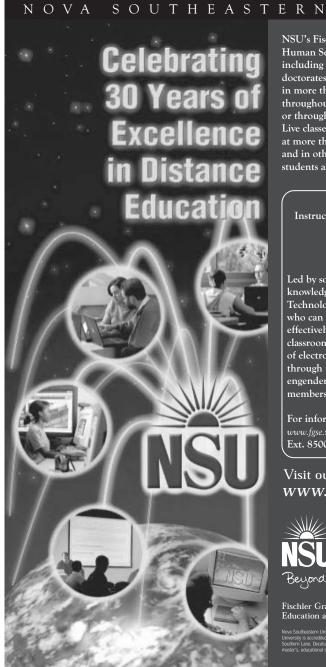
guardian attend a meeting with the truancy coordinator. At the meeting, Frank shared the obstacles that he encountered to school success including depression and anxiety as well as anger issues resulting from the way that his father had been treating his mother. The truancy coordinator recommended that his family speak with the family physician and pursue counseling regarding these issues. Frank continued to accrue unexcused (truant) absences, so the truancy coordinator filed a truancy petition in Washington County. Frank has been assigned a truancy social worker who will observe him and his family system as well as provide truancy case management in an effort to keep Frank and his family out of court. The social worker has required family and personal counseling as well as increased attendance (work completion). She has also asked the school to increase supports of Frank and his family. These supports include daily check-ins with Frank, weekly reports to his parents and truancy social worker, scheduled help sessions, and enrollment in a class that assists students in identifying obstacles to personal and academic success. The social worker will determine when and if Frank and his family will be summoned to appear in court for the truancy petition. As long as Frank follows the plan agreed upon with the truancy social worker, Frank and his family will avoid appearing in court.

ACTION PLAN FOR ONLINE SCHOOLS

In order for online schools to assert and maintain a credible presence in the education realm, they must adhere to the state and federal statutes that govern educational practices. In the same way that public online school students must participate in standardized testing in order to comply with the federal No Child Left Behind policy, they must be held accountable for those actions governed by state and federal statutes in regards to attendance and truancy. Online schools must write policies that define and govern attendance and truancy. Online schools must put procedures in place which include communication with students and parents about truant behavior, interventions for students in an effort to alleviate the causes of truant behavior, and the filing of truancy petitions when necessary. Online schools must be willing to cooperate and collaborate with county and state officials in order to build positive relationships, to assist in the enforcement of truancy laws, and to maintain a high standard of educational excellence. This is not an optional course of action; this is a necessary course of action. The continued existence of this educational option depends on it.

Note: The author of this article is willing to assist online schools in the writing of policies and procedures.

"ONLINE SCHOOLS MUST BE WILLING TO COOPERATE AND COLLABORATE WITH COUNTY AND STATE OFFICIALS IN ORDER TO BUILD POSITIVE RELATIONSHIPS, TO ASSIST IN THE ENFORCEMENT OF TRUANCY LAWS, AND TO MAINTAIN A HIGH STANDARD OF EDUCATIONAL EXCELLENCE. THIS IS NOT AN OPTIONAL COURSE OF ACTION; THIS IS A NECESSARY COURSE OF ACTION."

Are Today's Administrators Prepared?

Raymond M. Rose and Bob Plants

Virtual education is one of the fastest growing areas in K-12 education today. Online education (as it is also referred to) has taken a variety of new forms since the first virtual high school was created a decade and a half ago. There are public and private stand-alone virtual schools, virtual programs that are a component of an existing program, and there are teachers who have incorporated elements of online education into traditional, on-ground instruction (referred to as hybrid or blended).

A recent study, conducted by Project Tomorrow and titled "Speak-Up 2009: Creating our Future Student Survey," indicates that many more high school students are interested in online education than currently participate. One obstacle holding them back is the lack of information about the nature of online education, and another is lack of access to online programs. An earlier study published by the U.S. Department of Education's National Center for Education Statistics (NCES) indicated that about one third of all public school districts had students enrolled in distance education courses of some type in the 2002-2003 school year. That percentage has been growing each year (NCES, 2003). In fact, the January 18, 2010, edition of *eSchool News* published the following data:

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- The state of Florida's legislature has mandated that every public school district must establish an online program for K-8 and K-12 programs.
- The Center for Digital Education states that currently 27 states have statewide online initiatives.

The rapid growth of these programs has resulted in their identification as a disruptive innovation, and their development trajectory has been from outside the traditional educational program. As a result, school administrators are faced with making decisions about an educational innovation with which they've had little experience. It is most common for adults who aren't as comfortable with online social networking and online environments to be suspicious or distrustful of the quality of education offered by these new programs (George, Hall, & Stieglebaur, 2006).

What do we know about the quality of online education? Everyone can come up with a horror story about a truly bad online experience. Administrators can hear those and assume they apply to all online education. Paradoxically, while everyone also has a story about a truly bad face-to-face classroom experience, most educators will ignore them, focusing on the positive experiences, and make a decision to work in that environment. Administrators need to seek out the success stories involving online education, both for their own education and to have a better understanding of this new approach. Understanding the distinctions between fully-online and blended, asynchronous and synchronous, self-paced and scheduled, and individual and collaborative activities can help explain the range of initially confusing methods. Administrators may be surprised to know about the research that compares online instruction to on-ground instruction and finds that the online instruction is as good or better than the on-ground counterpart.

Specifically, one major study's results suggested that students who took all or part of their instruction online performed better, on average, when compared to those who took the same course through face-to-face instruction. The impact of these finding is heightened when the study considered those who took "blended" courses—those that combine elements of online learning and face-to-face instruction—appeared to facilitate achievement best of all (U.S. Department of Education, 2010).

Well-designed online courses are rigorous. They aren't impersonal, and they can reach students who might otherwise not have access to such courses. An urban legend floating around proposes that there's a special type of student who's successful in online education, and only those students should be allowed to participate in online education. Interestingly there's not the same belief about on-ground instruction: there's a special type of student who's successful in on-ground education. The recently completed National Technology Plan stated the following benefits for students from online learning:

- Provides personalized learning and higher engagement;
- Provides new connections to current content and related activities;
- Supports a broader learning community;
- Extends students learning time;
- Supports a broader assessment of student learning and understanding;
- Supports more effective professional development programs for teachers; and
- Supports better data on learning and understanding (U.S. Department of Education, 2010).

Schools and districts retain policies that reinforce seat time as a measure of learning (Sloan Consortium Report, 2009). Educators know that's not the measure of educa-

tion, but administrators are trained to respect and enforce policies, and find that when faced with policy decisions it's easiest to revert to structuring the learning environment around a seat-time model.

Administrators are faced with making decisions about online instruction whether or not they fully understand online instruction or the issues that are attached. For example, who should teach in an online environment? Administrators may be unaware that the pedagogy and skills of a successful online instructor are vastly different from those of their best on-ground teachers. Other administrators might even think that since online instruction isn't as effective as classroom instruction, teaching online would be an appropriate assignment for those teachers considered to be weaker in the classroom.

Thus two options seem to present themselves to address staffing: professional development for existing teachers or hiring teachers who already possess the skills in online instruction and technologies. Before an on-ground teacher becomes an effective online instructor or online course developer, the teacher should successfully complete online professional development that uses the technology and pedagogy for their particular educational program or they should acquire the requisite professional development.

Online course developers need a greater understanding of online pedagogy than does someone who will teach an online course that has already been developed. The online instructor still needs to understand the pedagogy, but doesn't need as comprehensive an understanding of the online delivery technology.

Since the level of professional development required for online education competence is likely not readily available within the district's professional development program, administrators are pushed to consider contracting this professional development to external providers. The leading virtual education programs all develop and conduct their own online teacher professional development to ensure their staff understand their pedagogical approach and program policies that align with their instructional approach, as that approach evolves.

If administrators are planning to buy rather than build, they should recall the previous comment about the range of educational approaches used in online programs. When choosing to buy online courses, leaders must be sure the vendor's course design pedagogy and the program pedagogy and approach are a match. It is not sufficient to depend on the vendor's sales staff to say their content matches. Outsourcing professional development to a content vendor requires careful investigation into their approach.

The 2009 Sloan Consortium report about K-12 online learning stated these findings (Sloan Consortium, 2009):

- Administrators typically rely on outside online providers, including post secondary institutions, independent vendors, and state virtual schools;
- Eighty-three percent of districts use multiple providers;
- The reliance on outside providers are due to shortages of qualified teachers in high need specialized areas, such as, STEM subjects;
- Districts have inequities in state funding; and
- A lack of foundation exists to determine quality in online providers, online content, or online pedagogy.

If securing appropriate professional development for online teachers is problematic, why not seek and hire teachers who already have the expertise? One of the reasons the leading virtual education programs created their own professional development programs was the lack of existing online professional development. Since those virtual schools were developed in the 1990s and early 2000s, a variety of

providers of online professional development have been established, but only a handful of teacher education programs do more than give a passing nod to online education. Online teaching preparation that is not oriented to a specific virtual education program tends to take a survey approach, and while that exposes the participants to an array of online approaches, it tends to inadequately prepare novice teachers for the specific demands of an online program where they may teach. In recent national reports, such as the National Education Technology Plan (NETP) and the Federal Communication Commission's recent National Broadband plan, teacher education programs have been called upon to increase their emphasis on preparing future teachers for online teaching and learning, even though many current students have grown up with technology (Federal Communication Commission, 2010; U.S. Department of Education, 2010).

A valuable benefit to having on-ground teachers also teach online, provided they receive quality online professional development, is the change that can take place in the on-ground classroom. Online teaching exposes teachers to new educational approaches and provides the opportunity to think critically and be more reflective of their teaching practice. Susan Lowes conducted research (Lowes, in this issue) on teachers in the Virtual High School program (goVHS.org) that showed the online teaching experience, including the online teacher preparation, had a positive impact on their on-ground classroom instruction. Not only can online education expand offerings to students, it can also be part of a school improvement program.

There are a myriad of decisions that on-ground administrators make that can have significant impact on the effectiveness of their online education programs. We've only addressed a few. Successful online education programs require a different pedagogical approach than does successful on-ground instruction. The key issue is that online education will only be a second best option to on-ground instruction if it is designed to be so.

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Five Myths Surrounding K-12 Online Learning

Guadalupe Vadillo

INTRODUCTION

Frequently, when presented with an opportunity to innovate, we just go back to our old practices and assume that things are meant to be a certain way. This inside-the-box comfort zone can be a barrier when trying to profit from new scenarios. For example, it was not until a backache patient came to therapy and refused to lie down at a major hospital setting in the United States that psychoanalytic couches were replaced by chairs so clients could sit down and talk directly to the therapist. The therapist in charge decided not to do what he had been

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trained to do, thus introducing a new era in therapy and he came to manage a 25 million patient therapy service (Kottler & Carlson, 2009).

MYTHS

When we observe what is going on in the majority of the institutions dedicated to online course design, we can see the inertia from face-to-face schools' practices. It seems that curricular design, timetables, sequences, human resources, and materials mimic those from brick-and-mortar settings. In this sense, the introduction of online learning has been seen as a sustainable innovation and not as a disruptive one, in Christensen, Horn, and Johnson's (2008) terms. That is, rather than addressing a lack of offerings, online learning has been conceived as a substitute for face-to-face learning. This nostalgia from *the way we were* (and still are, in many places) is preventing accomplishments we could attain if we had a wider spectrum of possibilities. Those possibilities stem from the abolition of a series of myths the author of this article has observed in her professional practice:

1. COURSES SHOULD LOOK LIKE COURSES

How do courses look? They are generally presented in an orderly fashion, have a beginning, a body, and an ending, they have tests, quizzes, or other evaluation procedures, they have a teacher or expert, and they follow a certain pattern. How-

ever, a learning program that promotes math skills could resemble more of a *Guitar Hero* videogame session, or a course on economics could look like a level of *Age of Empires* and lack almost all of the above-mentioned elements. Students may not embrace them as courses, but if they promote the desired learning outcomes, could they be considered as such?

Even in online master's degrees related to distance education, where ultimate innovation should be showcased, on the contrary a concern exists for having certain structures that relate the educational product to a traditional course. For example: it is often thought that there must be a paragraph establishing the educational objective of the course, another referring to the requirements and so forth. In invariably including these elements, we are restricting the creative possibilities the media has to offer. It is probably because we are still not fully comfortable with media that we tend to resort to our old habits. But we have to bear in mind that we can develop courses that look like games, letters, a visit to Universal Studios or to the Louvre, a secret mission, the play-offs, or any other means imaginable, and they can still be valuable learning experiences. Not only that, for thousands of students bored with traditional courses, they represent a golden opportunity to increase deep comprehension levels.

2. Online Education is Second Best to Face-to-Face Education

Because a great proportion of online leaders at present have a long history in face-to-face education, many developed a hard-to-change premise related to the desirability of online learning. They came into the field believing that online learning should be used only if there was no face-to-face option. In doing so, they contributed to diminishing the real potential it has, for digital natives continue to demand this type of education as well as some tra-

ditional learners who prefer online learning over traditional face-to-face education (Daniel, 2007). The most recent meta analysis conducted by the U.S. Department of Education (2009, in Patrick & Powell, 2009) concluded that, on average, students in online learning conditions performed better than those in face-to-face instruction. Previous studies have concluded that both have similar academic results (Cavanaugh, Gillian, Kromrey, Hess, & Blomeyer, 2004) or that online learning has equivalent or better learning outcomes (Shachar & Neumann, 2003; Watson, 2007).

3. Interfaces and Other Elements Used in an Online Program Should be Identical, so Learners Do Not Get Confused

The question here is why do we have such a low conception of our learners' skills? Why does a unit (in case we use units) have to look exactly the same as the previous one? Are our students not intelligent enough to accommodate to new, changing settings? Let us not restrict possibilities in an everlasting negative Pygmalion effect (Ferreiro, 2004): we should foster cognitive flexibility in students and the adaptability to cope with (and enjoy) change. Therefore, no unique format is necessary throughout the course. We can begin with a soap opera type of content in order to provide context in a psychology course and then introduce a connectivist learning activity (Siemens, 2004) in which learners create blogs and construct, together, a wiki dealing with peer pressure, and finally a proposal for a high school for troubled kids may be presented trough U-Stream.

4. If We Want a Learning Activity to be Completed, It Must Add to the Learner's Grade

Because of the autonomy that online learning generally entails, many teachers

and course designers assume that given the chance to select, K-12 learners will only be interested in completing tasks that involve a grade. This is only true when content and format are not intertwined to motivate students to learn. If learning activities are compelling and we take into consideration students' interests, we foster a joyful experience and contribute to the development of intrinsic motivation—defined as incentives and goals unique to the individual (Lim & Kim, 2003, in Hannafin, Hill, Song & West, 2007). On the contrary, if we underscore the importance of grades and communicate with a requirement-emphasized discourse, our students may develop an extrinsic motivation and we could lose many potential lifelong learners.

5. Virtual Courses Should Be Incorporated Gradually for Students to Get Used to Them

Once again, leaders and content developers may be projecting their own fears; they feel they need to slowly incorporate the span of possibilities available in K-12 online learning. Leaders can restrain progress if they believe that the process must involve many discrete and sequential steps. Because technology has permeated through social networks, entertainment, and the many different uses of the Internet, students tend to be quite literate in terms of online tools. Therefore, a full immersion is not only possible, but many times, recommended.

Conclusions

Leaders and developers in online education may establish restrictions if they are not aware of mistaken underlying assumptions. This article presented five common myths that may restrain the evolution of more powerful online materials in K-12 education in order to raise awareness of self-imposed limits while developing curriculum and materials.

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Using Literature Circles to Provide Support for Online Discussions

Clare R. Kilbane and Natalie B. Milman

INTRODUCTION

Engaging students in virtual discussions about reading materials for a course or workshop can be challenging, especially when content is dense and difficult to comprehend. However, as noted in previous *Ends and Means* columns, successful online discussions usually occur when expectations are fully outlined (Milman, 2008) and good questions are crafted (Milman, 2009a) to foster thoughtful discussion. Other approaches can also be

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applied to promote meaningful discussions in online environments, as well as to differentiate instruction (Milman, 2009b). One such strategy is the "literature circle," a strategy originally developed for use with elementary students but increasingly applied in K-12 and higher education settings. This article shares what literature circles are and how this strategy can be applied in online environments.

WHAT ARE LITERATURE CIRCLES?

Literature circles (Daniels, 1994; Daniels & Steineke, 2004) are small, temporary discussion groups comprised of learners who have read the same piece of literature but who have different roles and responsibilities. In literature circles, instructors plan and facilitate the learning structure, including student roles, whereas learners share perceptions, interpretations, and questions about the literature they have read. Learners in a literature circle read the same material, but each group member has a different role and responsibility to communicate their learning about the material. When learners have completed the tasks associated with their roles, they meet to share their insights with their group members.

There are many different roles that learners might have in a literature circle. Some examples are:

- Discussion Facilitator: This individual crafts the questions for discussion about the reading and facilitates the discussion.
- Connector: The connector's role is to identify similarities, differences, and relationships of the reading to other readings and/or experiences within the course or workshop.
- Illustrator: This person presents the material using some type of graphic organizer (e.g., Venn diagram) or drawing.

- Vocabulary Expert: This individual's role is to develop a list of important new vocabulary words and definitions found in the reading.
- Summarizer: This person summarizes the material and the discussion.

Each role enables learners to examine the reading material (e.g., text chapter, article) from a different perspective or set of "lenses" and comes with an associated task to complete. Although these roles are commonly used in literature circles, instructors have the freedom to develop other roles based on learner and course needs, as well as to assign more than one student to a role (e.g., there could be two discussion facilitators in a group).

Learners and instructors benefit from literature circles in numerous ways. During literature circles, learners work together to share their insights with one another. They increase their comprehension of readings while also building collaborative skills. From working together doing interdependent activities, learners can also develop a community around authentic and meaningful work. Peer accountability not only encourages learners to do their work, but often improves its quality.

HOW CAN LITERATURE CIRCLES BE USED IN ONLINE COURSES?

Although literature circles are effective in traditional learning environments, the strategy can also be implemented well in online learning environments. Just as many online courses incorporate discussion boards, these can also be utilized for sharing and presenting the work done by different group members. For example, the vocabulary expert might share a list of words and definitions as a file attachment to an online posting. The graphic organizer might create and share a flowchart of a process introduced in the reading material and post it as an attachment along with an

explanation to the discussion forum (the flowchart might also serve as a study guide, too). Learners performing this role might use a graphic organizer software program (e.g., Visio) or draw it with pencil and paper and then scan it before uploading the file to the discussion. The discussion leader might post discussion questions in the forum and encourage the other literature circle members to respond just as they would in an online discussion by posting probing questions as group members respond to the initial questions. The following outlines some steps instructors should take to ensure success of a literature circle:

- Incorporate literature circles as part of a course or workshop through assignments and grading;
- Select and assign the literature to be read (Note: different groups can read different materials);
- Determine the time frame for the literature circle (e.g., 1 week);
- Develop and explain the various roles for learners in literature circles;
- Determine how students will be divided into groups (assigned or students choose);
- Facilitate group work;
- Confer with learners or groups who struggle;
- Establish and share the assessment of the literature circle tasks and/or participation;
- Participate in the discussion and/or literature circle where/when needed; and
- Ask learners to perform roles using the online discussion board or forum to participate in the literature circle.

The literature circle strategy is robust and supports some variation in its implementation. In an online environment, it probably should not be used for all readings—rather, the strategy should be used to differentiate instruction when readings are challenging, important, or learners require additional support. Initially, literature circles may be teacher-led, but learners who are truly engaged in the literature selection can conduct their own sessions. Literature circles generally have regular meetings, with discussion roles rotating each session. Once readers can successfully conduct their own wide-ranging, self-sustaining discussions, formal discussion roles may be dropped. Personal responses, insights, and questions can be recorded in logs or journals during reading, then shared during group sessions.

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Creativity
Use It Effectively to Enhance Your Online Teaching

Errol Craig Sull and Catherine M. Skora

Sometimes, you get lucky. For some time, I have wanted to write a column on the use of creativity in teaching online courses. Not only have I used it very effectively within my distance learning courses, but I've talked with numerous online instructors who found its proper implementation to be invaluable.

And so I happened to mention this to a friend, Cathy Skora, a master's student in the prestigious International Center for Studies of Creativity program at State University College at Buffalo, and I was quickly given the missing pieces I needed to make such a column happen. The information she shared with me allowed for a

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true melding of academic research and experiential teaching, and I saw the use of creativity in my courses become more productive. Thus what follows is just downright cool—and extremely practical—when it comes to the use of creativity in distance learning pedagogy.

Most folks, of course, tend to use the term *creativity* in a general, "Hey-I'm-the-creative-type" context, understanding, perhaps, that being creative means going from working within what is to pushing beyond to something not yet defined. In this spirit—when done effectively—students become more engaged, are more interested in learning, have fun, and more concretely embrace the subject matter. But once the theory and practice of creativity is understood—wow! These outcomes can be brought to an even higher level.

After several hours of conversation with Cathy (hence the joint credit for this column) on all things creative, I've taken her knowledge, suggestions, and insights on creativity and combined them with a few thoughts, musings, and adventures of my own with using creativity in teaching online to bring you several approaches to sprinkling creativity throughout your courses. Use them—you won't be sorry.

UNDERSTAND WHY THE USE OF CREATIVITY IS IMPORTANT

When a distance learning course is "given" to an instructor nearly all of that course—if not all—is pretty much set in stone: due dates, assignments to be completed, lectures, readings, and so on. These were not put together helter-skelter, of course; sage educational minds thought about how all of these can work best for a great student learning experience. Yet, these courses are also very much like a soup without spices: fine for nutrition, but adding some spark to it can make the soup more exiting. So, too, with adding creativity to a course: effectively added in choice spots within a course the students become more engaged,

a stronger student-instructor rapport is created, the course has greater whiffs of fun, and the students have a stronger lock on the subject taught.

ALWAYS LOOK TO COMBINE CLASSROOM ELEMENTS FOR NEW CONNECTIONS

There is a tendency to view the classroom in a linear fashion—that is, each component of our course is often used as a stand-alone unit, only involving other parts of the course when built into that segment (e.g., a discussion topic might focus on an upcoming assignment). Yet we must look around and see where unusual or unlikely connections in the course might result in another learning experience for the students. An example? Take that same discussion I just mentioned, then ask the students to connect the topic of the discussion to … an animal *or* a city *or* a color *or* .…? By bringing in this thread of creativity the students think about the subject from another view, have a bit of fun, and the subject is once more embraced by the students.

INVITE YOUR STUDENTS TO OPEN THEIR CREATIVITY SPIGOTS

Why should you have all the creativity fun? Turn the tables and ask your students, as an example, to give you their most creative yet practical uses of the subject being studied (or a portion of that subject). Have the students pick a historical figure, and then use their new knowledge of their subject to improve upon something that historical figure attempted. Have the students discuss a topic of the course subject as if it were a recipe, then have each student pick one word that best defines his or her relationship with the subject—and explain why. Any of these, or others, uses creativity to make a subject fun—and much easier to "digest"!

Introduce Audio and Visuals as New Creative Dimensions to Your Class

Technology has opened many new possibilities in creativity use within an online course, and when we introduce these to students, excitement about the course and subject, student engagement, and long-term knowledge of the subject increase. Delivering feedback and other course-related messages through audio and streaming video, use of video to underscore or highlight a component of the course subject, and introducing real world applications of what the students are being taught through visual means (video, pix, cartoons, etc.) all add to the learning experience. And don't hesitate to invite students to share the same: all benefit!

Brainstorm Like Crazy: It Will be Productive!

We must let ourselves "get crazy" with ideas sometimes. The result will be new approaches, activities, insights, and connections for our online courses we had not previously considered. Brainstorming (a divergent idea-gathering method introduced by advertising executive Alex Osborn in 1953) has four rules: seek wild ideas, defer judgment, strive for quantity, and build on other ideas—so, go for it! Take any one broad subject, and frame it into a question or starter statement, like, "How might I make a topic area more interesting in my online class?" Jot down ALL ideas that pop up on your mind screen in response to this question. When finished, look over your list, and start converging your ideas by putting them in like categories known as clustering. Bada bing … a fresh approach!

Let Your Word Choice Bend, Sway, and Shake at Times

We each get comfortable with our vocabulary, as we should—it is an extension of us, and our students come to know us by how we write, as well as what we write. Yet this groove of the same old dependable writing style can also add a flat spot in your course. Think of this reliable type of writing as a long, long stretch of road with no scenery, no landmarks: it delivers you to a destination, but that's all it does. Yet, adding some scenery, perhaps a snack shop, and maybe some birds overhead make that trip more interesting, more memorable. The same holds true for your use of vocabulary and the structure of your sentences: don't be afraid to let it get a bit crazy, a bit off kilter, a bit loose, a bit funky at times. By being "language creative" you draw the students into your words, they pay closer attention to your message, and reading you is just a fun thing to do!

Take Your Students on a Trip Beyond the Course

Too often, students confine their course studies to the course: assignments due, readings to be completed, discussions to be posted, and so on. For many, the course becomes separate from their own lives—it is an online "school" they are attending for a degree, a certificate, or self-improvement. However, introducing "reality-based education"—education that brings the online course into the students' world outside of class, both now and later—is a creative way to bring the course to life, to have students think about how they will apply what they now learn to their everyday lives. And all sorts of prompts can be offered: "How can you use this course material in your present job?" "Can you give an example of how XXX will help you advance in your career?" "What past employment mistake did you make that could have been minimized or eliminated by what we are learning?" This list just goes on! The more students see and feel the course come to life in their own lives the more the course material will stay with them—and be used far after the course has ended.

EMBRACE YOUR MISTAKES FOR CREATIVE BONUSES

We all make mistakes in our teaching—it not only "goes with the territory," but they help make us better online teachers: from what we did wrong we learn what to do right. Yet these same mistakes can also present fertile breeding grounds for creative ideas that will work well in our distance education courses. By looking at what we erred on we can take that same "oops" and see how it can be honed, twisted, and bent for use in the class— even letting the class know you are aware of an error you made can open wonderful "teachable moments" where students will offer ideas and insights that otherwise would have stayed hidden. Also, look at your goof from another approach: is it possible it is a goof when looked at straight on but really is a great thing when viewed differently? Some traits of creativity are the ability to be fluid and flexible and, yes … to not be afraid to take risks! Don't be afraid to make mistakes—and learn from them. The more we understand and use our online teaching errors the more we can introduce creativity that was simply handed to us—by us!

LOOK OUTSIDE YOUR COURSES FOR CREATIVE OPPORTUNITIES

Relying on our own experience, the students' input, and various connections we make in our online course's components will offer many creative opportunities to seize upon. But why stop there? Our everyday lives are teeming with creative ideas: folks' interactions with one another; book and DVD titles in a store or a library; TV and radio shows, movies, and plays; vacations and business trips; casual conversations with friends, colleagues, and relatives; books, articles, and essays read. All of these and more will present you with creative opportunities to connect, combine, and synthesize information into new

approaches that you can integrate into your online classroom. This fresh approach will be interesting for your students, and by practicing your creativity skills they will continue to grow!

BREAK YOUR TEACHING MOLD

Sometimes, entering into our distance education courses with a different personality, strategy, approach, emotion (always positive, of course), detail, alternative, and so on can add some creative juice to the course. First, the students are not expecting this from you, so they will take notice; second, no matter how you broke your mold the "why" is crucial—you are doing so to get students more involved in the course and to more firmly embrace what is being taught; third, you are shaking yourself up a bit, thus re-energizing your teaching mojo (it can get stale if you are the same old, same old person all the while in your course!); and, fourth, you are reminding yourself that some creativity added to the course can make the class more enjoyable for the students *and* you!

INTRODUCE PUZZLES, PROBLEMS, AND THE UNKNOWN

Crossword puzzles and problem-solving puzzles, word games, real-life business difficulties, and other like "brain teasers" are creative ways to get students thinking about the course subject from a far-less-than-vertical approach; this only heightens their interest in and awareness of the subject. You can also make up a situation, then ask the students for their best solution or approach based on the item being taught; too, invite the students to submit websites they find helpful or interesting relating to the course. Again, these creative approaches to learning add some fun to the course and have students look at the course material from varied angles, a sure way to reinforce their absorption of the subject.
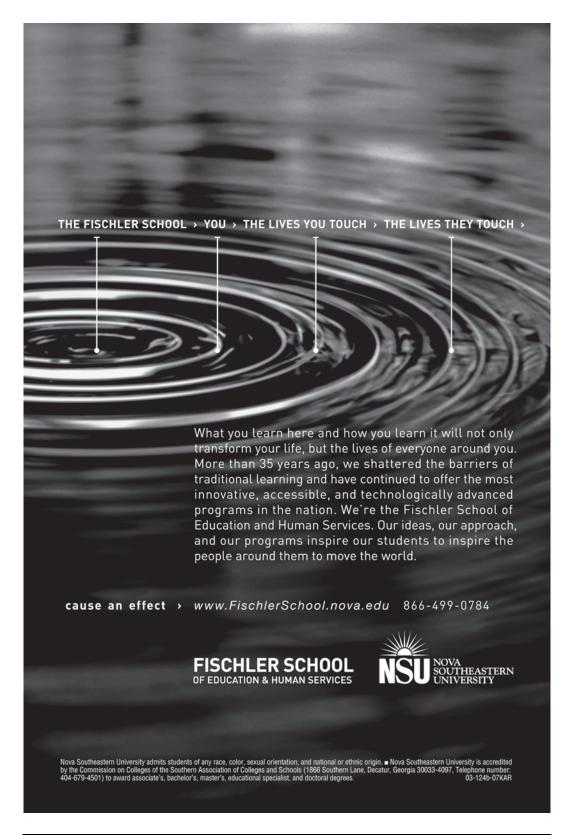
ESTABLISH A CREATIVITY BANK AND WATCH YOUR DIVIDENDS GROW

As you become more attuned to the effective use of creativity techniques in the classroom you will find your course offers you much that can be used for future courses. Of course, one of the benefits of an online course over a face-to-face course is that all your creative efforts can be seen—and continually seen; thus, you can reap these for placement into what I call a *creativity bank*. Here is a plethora of creative ideas, approaches, activities, postings, suggestions, student feedback, and so on, that have appeared in my courses, all categorized by course and level of student. While new dashes of creativity for my courses keep coming my way—and will yours, as well—also making use of my previous bursts of creativity has allowed me to save time, have more creative variety at the ready, and help keep me energized by mixing and matching my creative course inserts based on what my online course needs at the time. Keep your own creativity bank—you will find it quite helpful.

Now, I usually don't end my columns with a summation paragraph, but this time I must. One important item I learned from Cathy is that our potential for creativity is at the ready and has no boundaries, and thus I know each person reading this column can offer additional suggestions on the use of creativity in the online classroom, so I invite you to send them to me: erroldistancelearning@gmail.com. I'd like to offer a follow-up column on creativity that is, well, creative in that all suggestions come from others. It certainly would not only add to our effectively teaching online but also continue that creative collaboration among colleagues that I began with Cathy!

Remember: If it were not for the effective use of creativity Einstein would be Mr. Einstein, Jaws would have eaten all of New England, Harry Potter would have lost the Quidditch match, and Indiana Jones would be dead.

"OF COURSE, ONE OF THE BENEFITS OF AN ONLINE COURSE OVER A FACE-TO-FACE COURSE IS THAT ALL YOUR CREATIVE EFFORTS CAN BE SEEN—AND CONTINUALLY SEEN."

Ask Errol!

Errol Craig Sull

And so we continue the questions related to distance education! What I have found so helpful is the variety of questions, all offering additional opportunities to provide insights, info, and suggestions to enhance the online teaching efforts of so many.

This edition of the column:

I want to become a better online instructor, but I don't know what else I can do to accomplish this. I interact with my students

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almost daily, I don't vary from the syllabus, I offer my students good feedback on their assignments, and I turn in all assignment in a timely manner. What else should I do?

Ah, this question is one that perhaps offers more possible suggestions than grains of sands in a desert, and I say this because there are so many components to being "a better online instructor." Without knowing more about you and the "how" of your teaching let me offer some items that really are crucial in pushing an online instructor into that category of outstanding evaluations by students and supervisors:

First, you say you don't "vary from the syllabus," and while it's important to follow the guidelines and due dates in a syllabus it also helps to add additional touches and flourishes, such as audio (.mp3 files) and video, to add to or enhance your feedback and course materials. These tremendously increase students' engagement in a course and they help bring the course alive. Also, be sure you are well organized. Check that your enthusiasm and personal stories enter into your discussion postings: these strengthen the student-instructor rapport. Post announcements and/or send class e-mails that are motivating, present general suggestions on more difficult aspects of the course, and offer general reminders of upcoming important deadlines. These tips are some basic yet very

important ones that all excellent online instructors practice.

I have the freedom to create my own discussion questions, and I post two-five per each unit of class. For the most part, students do respond to my posts within the threads I created, but there are always at least a couple of students who decide to start their own threads in answering my posts, even though I told students not to do this. Any suggestions as to how I can keep all students "within the box" of my threads?

This is a common problem in online teaching where discussion threads are a part of the course AND the students can create separate threads (some course delivery systems are structured where students cannot do this); it is especially prevalent in the first couple weeks of a course among students new to online learning. The best approaches: begin each course with a general posting to the class and an individual posting/e-mail to each student indicating students cannot start their own threads and must, instead, post only within the threads you have created. When a student does create his or her own thread—and this will happen, no matter how many up front "don't do this" messages you give—do three things: respond to the student's posting with a request to see your note in the student's e-mail or private message posting area (this way you will not embarrass the student); in your private posting to the student begin by thanking him or her for showing enthusiasm for course involvement, then remind the student of the posting policy, and finally ask the student to respond to you indicating he or she understands this policy; post a general message to the students, reminding them of the "no new student threads" policy. With rare exceptions, this will bring the problem down to a "nonproblem" level.

I believe the first and last posts in a discussion thread by an instructor are the most important, as the first sets the tone for student involvement in the thread and the last sums up all that has been going on by the students in the thread. My efforts at this seem to work well, but do you have any tips?

You are so correct in describing the importance of these two threads! Here are some "add ins" to improve their effectiveness. First discussion posting: Be clear in what you expect and in the topic's importance beyond the course. Give an example of the topic's importance from your professional experience. Be sure your tone and choice of words are vibrant and enthusiastic. While the topic of the thread has already been posted by you or the school, adding additional items related to the topic on which students can also comment gives the students more leeway in their postings (and this can help in getting more discussion engagement by students). Show how this topic continues to build on the previous unit's week's topic (so students can see how this upcoming discussion relates to the whole of the course). Last discussion posting: In summarizing the thread, pick on some key points students made, but without mentioning names (you don't want others to feel left out). Remind students of the thread topic's value to their life outside your class. Add an interesting quote or personal experience or fact to reinforce the importance of the thread. Be sure to link this topic to the next unit's or week's discussion topic(s); this allows for a natural transition

While my courses run smoothly I encounter students who do not submit assignments by the due date, and losing points for the assignments being late does not seem to help. Any suggestions you can offer would be great!
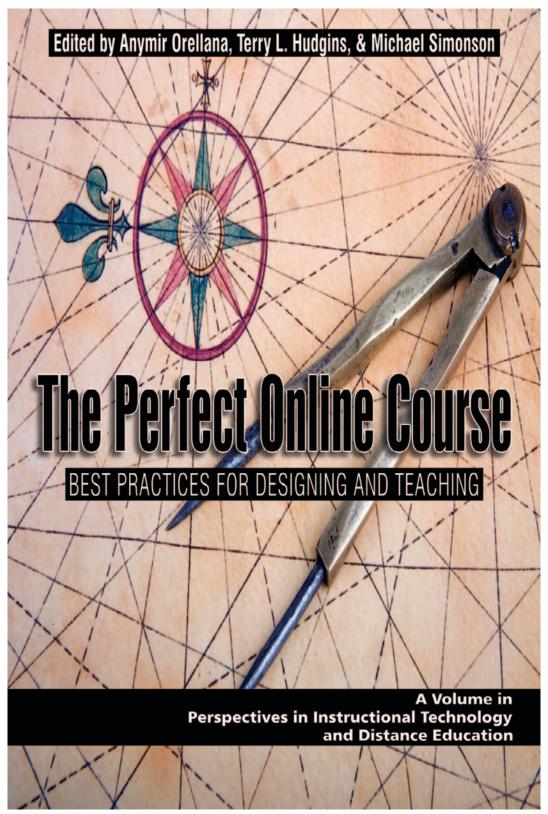
We sometimes forget that students have lives outside our courses; this becomes even more complicated if any students are new to online and/or college learning. For these reasons it is important to include info for students on time management and

how to better organize their lives. Also, draw a parallel between late submitted assignments and professional expectations on the job—why it would not be tolerated, possible repercussions, and so on. And while your students may not believe losing a few points here or there may hurt their final grade, send an e-mail or do a posting for the class that shows how the cumulative factor of late assignment submissions can impact their final grade. Finally, when students persist with late submissions, contact the student directly, by e-mail/private posting, but a phone conversation can be more effective.

One of the benefits of teaching online is that all postings by students and me, as well as all students' assignments and e-mails, are permanent parts of the course. Can you give me a guide to mine this material to its fullest so I can use it for future teaching assignments?

This is one of the true benefits distance learning courses have over face-to-face courses for, as you point out, all material—to the instructor—is available throughout the course and, for most schools, after the course has ended. However, to have the specific ideas, info, suggestions, and so on, you want to use again readily available it is important to organize for easy access, thus set up a folder in your computer labeled something like Previous Course Material; within this folder establish subfolders, each containing material you want to save (e.g., Websites, Exceptional Student Discussion Postings, Useful Instructor Postings, etc.). You can further organize your folders by dates of courses, specific assignments and discussion topics, and so on, depending on their importance to you. And as you do reuse this material remember to check its accuracy and timeliness; depending on the class and when you reuse it, changes might have to be made to the wording of the recycled material.

PODCAST ON GRADING THREADED DISCUSSIONS: HTTP://WWW.NOVA.EDU/~SIMSMICH/DISTANCE_ED_RES.HTM

Edited by Anymir Orellana, Terry L. Hudgins, & Michael Simonson

The Perfect Online Course

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about students and learners is never a bad idea, and if even a portion of the generalizations about millennials are accurate, then distance educators have a lot to learn.

Certainly, there is ample evidence that generations are different. We know of the silent generation, also called the greatest generation, the baby boomer generation, generation X, and now the millennial generation—all different in obvious ways, and similar in others. What may be important to the distance educator is the need to establish a level of understanding about millennial learners so distance delivered instruction can capitalize on the capabilities of "tech-savvy" millennials and build learning environments that challenge them in relevant ways.

For example, millennials are considered to be multitasking experts—they use their smart phones to text, talk, search, and post. Some from older generations would consider this multitasking as "not paying attention," but perhaps there is a maximization of attentiveness that makes multitasking effective—and, probably not just for younger learners.

Millennials are thought to be addicted to social networking services—they post to their friends, they tweet to their twibes, and they pretend in their profiles. Are social networking activities educationally relevant? And, if they are, does social networking have a role to play in the delivery of online instruction? The research is still anecdotal; multitasking and social networking are only two obvious activities of millennial learners that need investigation—at least investigation is needed if you are a baby boomer teacher or Gen X trainer.

And finally, innovative tools such as the iPad, iPhone, and Kindle seem to be coming in almost tidal wave proportions (a Gen Xer would say tsunami). The day of the overhead projector is over, but is the day of the digital book upon us? We need to know.

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A MILLENNIAL IS THOUGHT TO BE A PERSON BORN BETWEEN THE YEARS 1982 AND 2005…. THEY ARE "SHELTERED, CONFIDENT, TEAM-ORIENTED, CONVENTIONAL, PRESSURED, AND ACHIEVING."

Millennials—Oh Really?

Michael Simonson

I f a millennium is 1,000 years, is a millennial one in a thousand? Or are millennials here for a thousand years, or what? There is so much talk about the "millennials."

Actually, a definition of millennials is generally agreed upon—a millennial is thought to be a person born between the years 1982 and 2005—the latest generation of learners to enter schools and attend college.

In 2000, Neal Howe and William Strauss published *Millennials Rising: The Next Great*

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Generation and a new stereotypic phrase was coined, and a new consulting industry was begun.

Certainly, the popularity of the stereotype of the millennial makes it almost mandatory that distance educators know something about this group.

Millennials are the current learners in virtual K-12 schools and online college courses, and they will be the employees trained in businesses' e-learning courses. According to Howe and Strauss, millennials are typecast as rule followers who are engaged, optimistic, and pleasant. Howe and Strauss assigned millennials core characteristics using the words sheltered, confident, team-oriented, conventional, pressured, and achieving. Millennials have been prophesized as builders of new institutions that actually work, and as a generation that does not worry about tearing down old institutions. In other words, this latest generation has been characterized as being "almost too good to be real."

Eric Hoover, in a recent article titled "The Millennial Muddle" (2009) in the *Chronicle of Higher Education* reviewed the "hype" about the concept of the millennial learner and concluded that if millennial students are a maze, there are specialists that sell maze maps. Consultants that talk about millennial learners offer many insights—many accurate and some fanciful (Hoover, 2009). With that said, learning