Preparing Digital Natives to Teach: Time to Redesign Teacher Education Programs

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Since the emergence of Marc Prensky's concept of Digital Natives being taught by Digital Immigrants, education's challenge has been to find a way to effectively teach those who have grown up in a net generation. Now that the first of these millenniel students are preparing to become teachers themselves, we have the opportunity, perhaps for the first time, to witness true digital natives teaching their own. This article will examine the paradigm shift required of teacher education programs if they are to prepare this digital teaching generation effectively for the educational challenge that lies ahead of them.

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Abstract

Since the emergence of Marc Prensky's concept of Digital Natives being taught by Digital Immigrants, education's challenge has been to find a way to effectively teach those who have grown up in a net generation. Now that the first of these millenniel students are preparing to become teachers themselves, we have the opportunity, perhaps for the first time, to witness true digital natives teaching their own. This article will examine the paradigm shift required of teacher education programs if they are to prepare this digital teaching generation effectively for the educational challenge that lies ahead of them.

The paradigm shift required to successfully implement e-learning strategies is not a new concept. Indeed, Marc Prensky first introduced us to the concept of digital natives being taught by digital immigrants over a decade ago now, and yet we remain a nation struggling to come to terms with the educational potential of technology. It is true, that the past ten years has seen a significant integration of hardware into the classroom; the question must be asked however, whether this has been wastefully accomplished by many schools, without predetermined planning or the development of strategic outcomes (somewhat ironic given that these terms serve as the foundation for modern "educational speak") for its use. Merely, introducing these new technologies into the classroom does little to address the needs of these digital natives in terms of the process of learning – while it might create a welcome instructional environment for them, it does not address the compelling "elephant in the room." Being able to orchestrate a student-centered, technology-rich lesson requires much expertise on the part of the teacher (Mills & Tincher, 2003). How can schools expect to meet the needs of their students, when the teachers charged with the instructional process have never been trained to become skillful in the art of teaching these millennials?This type of challenge is not new to the educational system. In fact, there is both a design and blueprint for implementation in the progress made over the past two decades in the way that schools have approached the teaching of those students who have either special needs, and/or those who do not speak English as their primary language. The emergence of well-qualified and highly skilled teachers into the workplace, capable of excelling in meeting the needs of these students has not happened by accident. It has been through the emergence of strong teacher preparation programs, and the mandate of many districts that teachers be trained in teaching children with exceptional needs including those who require ESOL courses. In fact, buoyed by numerous financial incentives, and in some areas even a higher basic income stream, the system clearly appreciates and rewards those schools and teachers

income stream, the system clearly appreciates and rewards those schools and teachers who have taken the time to qualify themselves in overcoming the challenges of academic diversity. It is impossible to find a successful teacher education program today that do not have significant requirements for future teachers in the areas of special education, ESOL, and even cultural diversity.

The problem is not one of capability therefore, but perception. The system (rightfully) believes that students who are gifted, blind, have a speech impediment, etc. deserve a teacher who has the specific skills to meet these students' educational needs. Moreover, the entire system is based upon the premise that all students deserve a free and appropriate education in the least restrictive environment. Those who govern education have spent, quite literally, billions of dollars, and decades of litigation (again rightly), protecting the rights of marginalized students whether they are of a different color, gender, faith, et al, to receive the best education available to them. While most would agree that there are several areas where there is still a long way to go, there can be little doubt as to the effort put forth in an attempt to overcome the problems.

The same cannot be said however, for a generation of students who have emerged in the digital age. Even though, they are as culturally diverse as many other 'identified' groups, and the majority of teachers readily admit to being removed from their students' digital reality, they are rarely seen as a culturally diverse group that deserve the same focus as other potentially marginalized groups. In truth, there are now more digital natives whose needs are misunderstood by the education system than there are students who have other exceptional needs. It is time for schools to recognize the existence of this rapidly growing group of students, and to invest time, energy, and resources in meeting their needs. It is difficult to see how we can genuinely ensure that no child gets left behind until we do.

Such a call to action is timely for a number of reasons, but none more so than the fact that the system is now poised, for the first time, to graduate teachers who are digitally native themselves. This newest cohort of educators to hit the interview trail share most of the personal characteristics of the students that they have been trained to teach; and they are as tech savvy as the best of them. The new generation of teacher is totally comfortable when completely immersed in technology, and genuinely understands the mindset and skills that their classes possess. Not only do they embrace social networks, online communication, and gathering information from web 2.0 tools, but they genuinely buy into the premise that Learning 2.0 approaches enable Education and Training organizations to offer more personalized learning opportunities that are tailored to their learners' individual needs and preferences (Redecker, Ala-Mutka, Bacigalupo, Ferrari, & Punie, 2009). We have reached a watershed; there is no better time to turn attention to meeting the digital needs of students than now, and yet evidence of such an approach in teacher education programs is sparse.

With the abundance of information regarding the specific characteristics of millennial students available today, it would seem logical that, at the very least, the elective portion of teacher education courses would offer options that speak to the skills

necessary for excellent teacher preparation in the 21st century. Classroom technology has increased exponentially over the past decade and in order for new teachers to thrive in the classroom they must be immersed in teacher education programs that train them in the use of modern educational practice, and that have already gone through the paradigm shift that schools are struggling with. No amount of technology in classrooms can be effective unless those who are using it are totally comfortable with the pedagogical approaches to learning through technology, as well as the skills required to genuinely master its use. It is critical that the institutions that prepare teachers take positive strides to put themselves ahead of the learning curve - that they take the initiative to redesign their programs to address the modern requirements of education. It is inconceivable to put a student teacher into a classroom without more than a basic competence in Mathematics or Language Arts, even if these subjects are not their area of focus, and yet we regularly graduate teachers who have never been taught to plan and execute lessons integrating even the most basic technology.

Teacher education programs must change the default premise of new teachers when it comes to planning the learning process. Millennials prefer to collaborate and work in groups than alone. For more than a decade now, research has suggested that to be isolated from others is unthinkable for this group, yet many of our current teaching techniques still expect them to disconnect from their friends and technology and listen to lecture or work independently. (Frand 2000) Good schools must begin to integrate collaborative teaching methodologies as a core part of the curriculum design, as well as developing skills for teacher collaboration. New 'Millennial' teachers thrive in environments where they can plan together, openly share lesson plans and classroom activities. They must be taught to use their social networking skills to develop their craft to its fullest potential where they can maximize their natural tendency to collaborate. Courses need to be redesigned based upon a foundation of educational collaboration, rethinking the traditional notion of individual assignments and assessments. Rather than preparing teachers to be masters of 'textbook' and 'multiple choice' style learning, programs must prepare teachers to work in an educational environment that fosters digital media presentations and collaborative team activities. Schools cannot continue to teach in an educational world based upon educational isolation.

The classroom can be a challenging place to manage at the best of times, and teachers must have advanced communication skills in order to help millennial students become independent learners who are willing to accept responsibility for their learning. Tomorrow's teachers must understand that parent communication needs to be managed in ways that it rarely did a decade ago and teacher-training programs need to equip student teachers with the tools to be able to cope. The use of learning communities that actively involve students and parents has never been more pertinent, and establishing social networks that surround the classroom and learning environment is fast becoming a critical component of a good teachers' tool kit. These virtual learning communities clearly must be developed to ensure both safe and appropriate communications, but even the latest change in FCC regulation declares, "While some individual social media pages might contain harmful content, social media sites such as Facebook "do not ... fall into one of the categories that schools and libraries must block. Bottom line: Today's students

"live" online – and increasing demand for technology in schools requires a smooth transition to the modern era" (Knight, 2011).

Perhaps the most important shift, however, is the need to develop courses that allow for student teachers to master the total integration of technology into the learning process. They must be taught to use the technology that they use on a daily basis as one of the most powerful and effective teaching tools available to them in the classroom. Research indicates that while 96% of youth in the 9 to 17-year old age range are using social networking, 60% of those are using it to "talk about education topics, and more than 50% use it to talk about specific schoolwork" (Klopfer, Osterweil, Groff, Haas, n.d.). These are startling statistics, and demonstrate the enormity of the technological potential - and this is just in the area of social networking. Students, en masse, and at all ages of middle and high school are already choosing to learn in this virtual social environment, and demonstrating significant intrinsic motivation to do so. When was the last time that 60% of the students in any given school were discussing educational issues without being mandated to do so? It is time for student teachers to enter schools having already mastered teaching using a Smartboard (or some variation thereof), who are well versed in the use of just a handful of the thousands of software tools available to them both in and out of the classroom, and who know how to deliver, assess, and differentiate, excellent lessons using a technological platform.

If our teacher education programs do not lead the way in redesigning the preparation of teachers for the future, then it will not matter if they have a Millennial mindset or not. Should we continue to prepare them to teach for an educational world that is removed from 21st century reality, in environments that are devoid of their natural technological habitats, then we must expect the same results that we are witnessing all too frequently today. Teachers who are ill-prepared to teach in a modern, fighting their natural technological instincts, and struggling to control and anesthetize disengaged classrooms of students.

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