Multicultural Education, Technology and the Digital Divide

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Abstract

Multicultural education can be a vehicle for educators to develop strategies to face tough issues of inequality and social justice in the classroom. Technology and the Internet can be one strategic channel for advancing multicultural education, however, educators must be cautious. There are many replications of inequalities bound up in technology and the Internet that reflects upon our society. A critical eye must be used before we apply strategies involving technology and the Internet in the classroom environment. A major factor to consider is the digital divide that exists in both the classroom and in our society. The divide is both political and economic in nature. This paper will discuss the divide and how it encompasses race, gender, class, language and the disabled. Finally, there will be ideas for educators about the implementation of technology and the Internet in a multicultural classroom.

Multicultural Education

Walking into a typical classroom in the United States one will find a diversity of students from various ethnic and cultural backgrounds. How do educators go about teaching this diverse group of students? Are there areas where educators need to be sensitive to multicultural and social justice issues? Multicultural education can assist educators with strategies to face tough issues of social justice in the classroom. To aid in this discussion multicultural education can be defined as an approach to changing education by understanding, questioning and removing inequities in schools. It addresses social justice issues that focus on the ideas of providing freedom, justice, equality, equity and human dignity to each and every student regardless of gender, race or socioeconomic status. Multicultural education also values cultural differences and affirms pluralism while challenging all forms of discrimination (Sleeter & Grant, 2007).

There are several avenues that multicultural education can take in creating change within education. It needs to start at the granular level and focus on change in self or the individuals within the classroom. This begins with the teacher and trickles down to the students. It is necessary for all teachers to exam their own background and beliefs, searching out prejudices, biases and assumptions making sure that these do not negatively effect the classroom environment. The next level would be fostering change in administrative policies, which would impact changes in individual districts and schools. Some ideas for achieving this could be through teacher preparation programs, establishing critical pedagogy, development of multicultural curriculum, evaluation of assessment practices and technology use.

Finally, this change has the potential to seep into society as the students, faculty and administrators promote these ideas among others outside of the school environment. This could help promote and maintain social justice and equity at all levels, locally, nationally and globally (Gorski, 2005).

It would be beneficial for the pedagogy of multicultural education to become the norm in classrooms throughout the United States. The techniques of this pedagogy include morphing from teacher-centered learning to student-centered instruction. This would draw upon the experience and knowledge of the students and create a social awareness for a community of learners. Multicultural education draws upon 21st Century fluency by suggesting learning be active and engaging (21st Century Fluency Project, 2011). This type of learning promotes creative and critical thinking skills in students both in and out of the classroom environment.

Multicultural Education and Technology

Technologies are emerging in schools with more reliance on computers and the Internet. However, there has been little consideration for the potential impact upon effective and equitable teaching and learning practices. We may have computers in every classroom, but we don't have teachers in every classroom who know how to use them (Gorski, 2005).

There is a chasm between technology and effective teaching practices. Questions need to be addressed on what is the most effective way to teach these lessons and how does technology fit into this schema? Many educators discover a "cool" technology and try to make it fit into the lesson, when in reality the lesson

should come first, not the technology. Technologies need to be understood and evaluated in the greater context of educational and societal framework before they are employed in the classroom.

Technologies and curriculum from the Internet should be peer reviewed and evaluated before being used with students in the classroom. Textbooks and curriculum typically undergo a rigorous evaluation; however, there is no process for critical examination or evaluation of materials used in the classroom from the Internet or from software developers.

Another assumption is that this generation of students, these so-called Digital Natives, really know how to use computers. Sure, they know how to play games and "surf" the Internet for popular themes, but do they understand how to critically evaluate the information they find and use it to its full potential? As educators we need to prepare students to safely explore an environment full of potholes and vipers. We need to make them aware that just because it is on the Internet does not necessarily make it true. We need to teach them to check the source of the page and to be wary of people or groups who might be promoting their own agenda through a slick website.

When it comes to multicultural education, technology and the Internet, one major question needs to be properly and comprehensively addressed. Does every student who enters a public classroom have the opportunity to achieve to his or her fullest potential? This should be regardless of race, ethnicity, gender or sexual orientation, religion or politics, socioeconomic status, language or disability (Gorski, 2005).

One issue that is bothersome is when an educator or policymaker decides to eliminate something, because it does not fit into one of these categories. It is much like the old saying, "Throwing out the baby with the bath water." We should be additive with information, not subtractive. As a quick example, don't eliminate all religious holidays in the school, rather learn about and celebrate each one with their own uniqueness. This will teach students to understand, value and respect each other's religion and cultural celebrations.

The Digital Divide

When discussions occur about the use of technology and the Internet in the classroom, one subject that is prevalent is the issue of the digital divide. What is the digital divide and, more important, are there any avenues we need to take to overcome and conquer the divide? The digital divide occurs when there are inequalities in gaining access to computers and the Internet based on social or cultural identifiers (Gorski, 2005). There are many factors that need to be considered when trying to overcome the difficulties of the digital divide. Paul Gorski discusses in his book, *Multicultural Education and the Internet*, an idea of making the shift from an equality orientation to an equity orientation by considering the broader more contextualized scope of education and society. This idea poses the question, what is the difference between equality and equity? The concept of equality is when everything is evenly proportioned, as an example, quantity, size, valve, ability, and strength. Equity, on the other hand encompasses fairness, impartiality and justice. As an illustration, let's take Thanksgiving dinner; if all were

equal, then the small children would be served the same amount of turkey as the adults. Every portion is the same, but does this really make any sense, as children typically don't eat as much as adults. Whereas with equity, the children would receive a smaller portion and the adults would have a larger serving of turkey to fit the needs of the diner and not waste any turkey. So in this situation, equity makes much more sense. However, in education how do we go about measuring equity? It is easier to measure equality. Everyone receives the same, but how do we go about determining who needs more and who requires less?

Gorski (2005) tries to tackle this issue with seven factors to be considered when making a paradigm shift from equality to equity:

1. Be critical of digital inequities in the broad scope of the educational setting. We must be aware of and assist students who require special needs with digital inequities, while realizing and being sensitive to the fact that these students have historically suffered in other areas of education and society. An example would be that in remote locations, such as an Indian reservation there might not be access to high speed Internet and this group has typically not been included or represented on most Internet venues.

2. Look to support and encourage, not just gain physical access. These students not only need access to the technology, but educators need to empower and inspire students to achieve and be successful in areas where they have typically been discouraged from entering. An example would be that women have typically not been encouraged to pursue careers in the STEM (Science, Technology, Engineering and Math) fields.

3. Look to be fair and equal with Internet content and experiences.

   When using the Internet in the classroom it is important to evaluate the sites that are used for content, source and equity among all groups. It is also vital to explain to students the possible risk of "surfing" the Internet and teach them how to verify information for accuracy and accountability. The example for this would be how women are portrayed on many Internet sites. Not only is this prevalent in pornography, but it is very obvious in games where the target audience are young males.

4. Critically examine who is creating Internet content and how it is being used for instruction. The Internet can be a powerful tool used for both positive and negative gains. Educators need to dissect the content distributed via the Internet to verify content and to evaluate sound pedagogical practices. They also need to be careful for subliminal messages from groups promoting their own cause. One example would be finding an informational website about Martin Luther King, Jr. only to discover that it has been created by a white supremacy group promoting a hidden agenda.

5. Examine the sociopolitical and socioeconomic motivations for technology in the classroom. Educators need to ask this question. Who is going to really benefit from the use of technology in the classroom? As educators we need to be advocates for the students, not a political or business agenda. The question needs to be asked, who truly benefits from supplying the schools with technology? If students are using an Apple product or a Microsoft product in the classroom, then chances are they will purchase that product

for home or personal use. This is like the drug dealer syndrome, I will supply you "free" drugs and get you hooked, then you will come back to me later to buy more. Technology in the classroom should not be centered on the brand, but rely more upon open source products. This may naturally happen as more computing goes to Cloud Technology.

6. Expose capitalist propaganda about the Internet being available to everyone. This deals with direct access to technology in and out of the classroom. As educators we cannot assume that all of our students have the same access to technology. For example, we might conclude that everyone has a smartphone because of media exposure. Well, in the commercials, on television shows and in the movies, everyone has them, so I now believe that it is true.

7. Realize that providing more technology will not decrease the digital divide. This is the old belief that, if we throw money at a problem, it will go away. Funny, this approach has never worked, yet it is still used at almost every level. Yes, money is needed to purchase technology and Internet access, but educators need to go much further than the technology itself and explore correct and effective uses for technology from a pedagogical lens. The best example would be for the teachers to have a voice in the decision making of the technology that comes into their classroom. Don't force a technology on a teacher who is not prepared or willing to use it. Instead, teachers and technologists should work together to figure out the best solution for each individual classroom environment.

Five Dimensions of the Digital Divide

When examining the digital divide there are five dimensions that need to be explored: race, gender, class, language and disability. Each of these dimensions have areas that are uniquely complex, yet they do share an interrelatedness. This will become apparent as each one is discussed.

Race has three areas of concern when it comes to the digital divide. The first is computer and Internet access. According to the National Center for Educational Statistics (NCES), schools that have higher numbers of students of color have fewer computers per capita than schools that are predominately white. Basically, white and Asian students have more access to technology than do African Americans, Native Americans or Latino students.   It is of value to note that teachers who do have access to computers in these schools are more likely to use them for administrative tasks, instead of in the classroom for teaching purposes. The second is the learning experiences with technology in the classroom. Teachers in classrooms with high numbers of students of color cite many reasons for not teaching with technology. These reasons include: less training, less technology assistance, less classroom level access to the Internet, and outdated, incompatible and unreliable computers. Finally, there is a gap in the different types of students who are encouraged and supported to use technology. Unfortunately, there exist a minority myth that white and Asia American students will excel with technology, and they are encouraged to pursue fields in high tech areas. This may lead teachers to push these demographics in the classroom while slighting students who are African American, Native American or Latino (Gorski, 2005).

Gender also has a myth issue much like race with a different twist. The myth is that boys excel at math and girls are better at writing, so boys are steered in the direction of the STEM (Science, Technology, Engineering and Math) fields, while girls are not encouraged to enter this arena. Another gender issue with the Internet and gaming is how women are portrayed and treated. The pornography industry thrives and drives the Internet market by portraying women as sexual objects. The video gaming industry is even more disturbing by introducing young people to images of unrealistic body types and violence against women. In the culture of the technology world, men are depicted as confident heroes, while women are viewed as victims or in need of being rescued (Gorski, 2005).

Class is one dimension that is clearly at the forefront of the digital divide. Children from families with higher incomes will have more access to technology than those children coming from lower income households. When it comes to learning experiences with technology, wealthy students are able to take advantage of these opportunities, while less advantaged students are left behind in the digital dust. Another area where lower socioeconomic students find gaps is in the content offered on the Internet. There are fewer resources for those who do not read at a higher level and less information for local community activities, cultural diversity and meaningful documents that would benefit this group. It is also very difficult for anyone to search and find to this type of information, especially those who are not familiar with how to navigate the Internet (Gorski, 2005).

Currently the dominant language on the Internet is English with penetration at 43.4% (Internet World Stats, 2011). However, this could be changing with Chinese

at 37.9% and growing at 1478% rate! There are and will continue to be disparities when it comes to the issue of language on the Internet. One major hurdle is that search engines are English-centric, making it difficult for speakers of other languages to find relevant information. It is also harder to find culturally appropriate material for speakers of other languages than English. This makes teaching with technology difficult for a multicultural classroom.

The last dimension to discuss is technology and Internet access for the disabled. The Individuals with Disabilities Education Act (IDEA) of 1997 and the Assistive Technology Act of 1998 helped to open doors for those with disabilities by mandating assistive technologies when planning individualized educational needs (Male, 2003). Assistive technologies opens up new possibilities for those who are disabled. However, gaining access to these technologies has proved to be a high hurdle for many disabled people to overcome. The disabled are more likely to live in households that don't have computers. Even if they do own computers, the assistive technologies are very expensive, take professional set up time and many hours of training. One other very disturbing factor is the Information Technology culture's attitude toward designing and programming for the disabled. This culture has typically been unsupportive and discriminatory in pass practices. However, the tide may be turning as the Internet community is looking toward principles of universal design. Universal design is when designing products consider usability for all individuals to have equal opportunities to gain access, regardless of any limitations. Universal design origins come out of the architectural field with an example being ramps not only for wheelchairs, but also for all who have difficultly

or do not like climbing stairs. This principle of universal design is now bleeding over into the field of education (National Design for Universal Design in Learning, 2011).

The dimensions, problems and solutions to the digital divide are as complicated and complex as the World Wide Web itself. Gaps continue to exist involving equity, social justice and cycles of oppression when it comes to technology and the Internet inside and outside of the classroom environment.

As educators we must start to bridge the digital divide through several different lens. These viewpoints include: Sociohistorical, Sociopolitical and Sociocultural. The key is to fully understand the digital divide and realize how important it is for educators to be part of the solution.

As educators and administrators we must understand that simply adding technology in the classroom is not the only solution. There needs to be a transformation of attitudes and expectations about technology in regard to race, gender, class, language and disability.

Ideas for System Changes

As educators and policymakers we can help to make some realistic changes in order to help bridge the gap of the digital divide in education. At a systems level we can search out software, computers and Internet content that is equitable and provide effective teacher training. We can encourage and support all students regardless of race, gender, class, culture or disability and focus on technology related fields of study. We can demand and require resources for adaptive and

assistive technologies looking toward universal design principles to drive us toward this goal. We can provide access and training to culturally diverse pedagogy while finding websites and software that fulfill this need. Finally, we must be diligent and constant in monitoring and updating our viewpoints about the digital divide and truly believe that multicultural education can help us to bridge this gap.

On the ground level teachers in the classroom can make the biggest impact on closing the digital divide. One idea is for teachers to simply reflect upon their use of technology in the classroom. They can ask questions that address the digital divide and how they can make a difference with students both in and out of the classroom. Here are some questions that will help facilitate this reflection:

- Does the use of technology provide the best learning experience for the students?
- Am I putting pedagogy before technology?
- Do I encourage all students to pursue careers in technology?
- Do I assign homework where students have equal access to the technology?
- Do I engage my students in critical discussions about the digital divide and the role of technology in our society?

Teachers do have the power through multicultural education to instill change in students, administration and society by making a grassroots effort to start building the bridge that will cross the digital divide, and bring equity and equality to all who wish to utilized technology for learning and teaching purposes.

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