

Running Head: EDUCATING FOR TOMORROW: A PHILOSOPHY OF TECHNOLOGY IN
EDUCATION

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Abstract

My basic philosophy of education is a combination of essentialist/perennialist ideas and constructivist methods. I believe that every student can learn given the right environment and right teaching methods, and that the role of the teacher is to create that environment and provide those methods. I feel that technology should no longer be considered an elective; technological literacy should be a requirement for all students. Students should be given some electives so that they can tailor their education to fit their own goals, but there are things that they need to understand to be able to function in modern society. The teacher plays an important role in education, and needs to be creative and adaptable in their methodology, especially when teaching diverse learners in an integrated classroom.

Introduction

“I’m sure the reason such young nitwits are produced in our schools is because they have no contact with anything of any use in everyday life.” (Simanek, n.d.) When Gaius Petronius Arbiter wrote that in the *Satyricon*, he couldn’t have realized that it would still be true thousands of years later. Unfortunately, there are still students who are leaving schools today who are highly educated but have no actual skills or knowledge that is of any use in the real world. While I am not advocating abandoning the development of a student morally or intellectually, we must make sure that their education includes information and skills that the students need to function in society.

This is especially important in the area of technology. Technology and computer teachers are training our students for “jobs that don’t yet exist, using technologies that haven’t been invented yet, in order to solve problems we don’t even know are problems yet.” (campusvue, 2009). It is not enough for our students to understand how to use today’s technology; they need to be able to understand the technology of tomorrow, and be able to innovate. They will have to create solutions to problems that have not arisen yet. We have to do more than teach them critical thinking; we have to teach them the importance of learning, and to be able to teach themselves. The root of this teaching style is in problem-based learning, but the underlying philosophy is an interesting mix of perennialist philosophy and constructivist methods. It’s an interesting mix, but it is through this combination that we can best prepare students for the world in which they will be working in the future.

Worldview and Philosophy of Life

No educational thought or style exists in a vacuum. To really understand this strange mix of philosophies and methodologies, it is important to see how it ties into my worldview, and to do that, the concept of ‘worldview’ must first be explored.

“Roughly speaking, worldview refers to a person’s interpretation of reality and basic view of life.” (Knight, 2006). Worldview is not merely a religion or a philosophy; it can also be the absence of religious belief. It is simply a set of presuppositions that a person holds that shape how they view reality. It addresses major questions in a person’s life: the questions of the nature of reality (metaphysics), the nature of knowledge and truth (epistemology), and the nature and source of ethics and values (axiology), (Nash, 1999). An individual’s worldview directly impacts their views of education, because worldview dictated the nature of truth itself, and whether we can know truth conclusively and absolutely at all. Teachers also impart ethics to their students, which is another area that is shaped by worldview.

Reality is, ultimately, a reflection of God and His creative work. As a Christian, I believe that everything is here as a result of God’s creative act at the very beginning (Genesis 1-2). Because of this, God can and does intervene in His creation. These interventions are rare, and they are intended to show all of creation His glory. Outside of those interventions, the universe operates under a set of logical, rational rules that reflect God’s ultimate rationality. These rules can be investigated and understood; in fact, they form the basis of scientific experimentation. Without this rational universe, true learning is not possible.

Mankind is part of this created, rational universe. According to Genesis 1:26-30, humanity has been created by God with a specific purpose in mind. We have been created in

“the image of God” – the *imago Dei*. Part of this image of God is our very nature as rational beings. We are able to learn, and are driven by curiosity of the world around us. We have value, not because of what we can do or have done, but because of what we are – created beings, made for a purpose in the very image of the Creator of the Universe.

The nature of this Creator is Truth; it follows that there exists absolute truth. Because there is absolute truth, and because we are rational creatures living in a rational universe, we must be able to know that truth. In Romans 12, Paul tells us not to be “conformed to this world, but be transformed by the renewing of your mind ...” (Romans 12:2, ESV). Christ Himself tells us that we are to love God with our minds (Matthew 22:37, Mark 12:30, quoting Deuteronomy 6:5 in both cases). Our intellect is to be dedicated to His service; what would the point be if there was no real Truth to understand?

This carries over directly to the classroom; each student in the classroom has value in and of themselves, without regard for how well they do on a test or how much attention they pay in class. Our students are valuable because they are made in the image of God; they have worth because they are God’s creations, and they have are worth our time in class because they have in them the ability to reason and learn God’s truth as part of the image of God. We must reach the conclusion that all of our students are able to learn; as George Evans has said, “Every student can learn. Just not on the same day or in the same way.” (Light a Fire Quotations, n.d.) Students should be encouraged to value learning and education; it has been shown that most of what a student learns in school will be obsolete within 3 years (campusview, 2009), so it is vital that we teach students to want to learn, to improve their understanding, and to explore. Viewing this from a classroom management perspective, we need to teach students to value each other, especially the opinions of others. Showing students that we are all made in God’s image is the

best way to do this; modeling from the teacher is the most practical method of teaching this truth.

As Ackerman says, "... the classroom must be a place where students feel safe and experience success." (2007, p. 3) This includes not only the teacher's attitude toward students, but also the students' attitudes toward each other. The teacher must model this behavior for the students; if the students know that the teacher holds them all in equal regard, they will begin to look at each other the same way.

Philosophy of Schools and Learning

Schools exist to provide that environment that Evans talked about, where every child can learn. Crucial to this role is the understanding of the latter part of Evans' quote; "not on the same day, or in the same way." Children learn differently from one another, and a child may learn differently from one day to the next, especially in the early grades. Schools must take into consideration how best to educate all of their students to produce successful, well-rounded students.

There are, of course, some things that all students need to learn, a basic education that is common to everyone. Where I differ with the perennialists and essentialists is in the content of that basic education. In addition to reading, writing, and mathematics, students need to be computer literate. This includes Internet research skills as well as the basic word processing and presentation skills. They also need to develop critical thinking skills, to be able to evaluate information presented to them in all of its various forms. As teachers, we have an obligation to our students to teach them how to be productive members of society; part of that duty is to prepare them to function in an increasingly technological world, where anyone can publish and

be read by thousands. Above all else, we need to be helping our students to learn; we just need to make sure that we are not producing the “young nitwits” that Petronius complained about.

Cooperative learning, as Vygotsky advocated (Slavin, 2006), is a key to helping students develop the skills they need to compete in an increasingly technological world. Cooperative projects show students how they will need to interact with their peers in the “real world” and prepares them for the interpersonal conflicts that often arise in those situations.

Instructional Practice

One practice that has become increasingly popular in the classroom is the use of multiple intelligences. Introduced in 1983 by Howard Gardner, multiple intelligence theory attempts to identify the various ways that children learn, so that the teacher can better instruct them. Gardner had no intention of establishing a new educational paradigm (Gardner, 2008), but that is exactly what has happened. Teachers have quickly seen the benefits of approaching teaching with Gardner’s ideas of intelligence in mind, and have seen success in the classroom by using methods grounded in his theories. Evans’ quote comes to mind once again, as all students are learning but not in the same way.

Gardner’s views really revolutionized the way I look at education. I became aware of them very soon after I started working as a substitute for the first time; my wife, who majored in secondary ed in college told me about Gardner, and encouraged me to read his books. I’ve seen it work in classrooms time and again; students who were not learning in a more traditional setting were able to excel once their specific intelligence (or, most likely, combination of intelligences) were discovered and taken advantage of.

It is rather easy to implement multiple intelligences in a computer applications/technology class. Ian McCoog has summed up nicely exactly how technology can be used to teach to each of the 8 intelligences. One thing that has to be remembered when using technology in the classroom is summed up best by McCoog when he says, “Technology only provides the backdrop for the twenty-first century. Effective instruction is what directly affects students’ acquisition of the twenty-first century skills necessary to compete in universities and an increasingly competitive job market.” (McCoog, 2007). As much as we may love technology, we have to remember that it is only one tool available to us, and that ineffective teaching and poor planning cannot be offset by the latest technological “wonder” that is sold to schools in an effort to improve test scores.

Teacher-Learner Relationships

The student’s role in education is ultimately to learn. Students should have an educational goal in mind, and teachers should encourage them in developing and reaching that goal. Students should have some control over what they learn in school; I am a big proponent of electives from middle school through college. Students who are aware of their educational goals can make sure that they are prepared for life after graduation, whether it involves college or just getting a job. By giving them some control over their education, they can shape their classes to meet their goals. It also shows them the importance of education to their future, and can help to encourage their value of learning.

While students should have some control over their coursework, it should be obvious that they should not have total control. There are things that they have to know, whether they want to learn them or not. There is a place in education for content standards and required classes

because there are skills that are essential to success in our society. It should also be obvious that students are not able to teach themselves everything; even the most committed reformer would admit that there has to be some top-down instruction involved in education, even if it is simply teaching students how to research the topic of their choice. The teacher plays an important role in this.

The role of the teacher in education is complex. At one moment, the teacher is the authority, teaching students facts and skills that are essential to their learning and their lives beyond school. Another moment, the teacher is a guide, steering the student along the path and encouraging their passion for the topic. In one setting, the teacher will command total, undivided attention from all the students; in another, the teacher may simply be another voice in the discussion as students explore the daily topic. Which method is right? They all are, given different situations and different class dynamics. Teachers must be flexible in their instruction so that their classes can get the most out of the instructional time available. The teacher must be highly trained, plugged into a network of teachers who can help them to teach their students, who can offer advice when obstacles are encountered. Teachers must also be committed to the success of their students, and take an interest in those students beyond the classroom. Teachers serve as mentors to their students, and a student's success becomes the teacher's success. Teachers are often the main adult role model in a student's life, and need to be mindful of that during the school day and even outside of school.

Diversity

Teachers must take into consideration many different factors when developing their lessons. We have to consider, for example, diversity in socio-economic status (SES). While

many schools are fairly homogeneous in this regard, there can still be some significant differences between students' SES level in the classroom. One thing that is essential is that teachers not simply assume things about a student's performance in class based on their SES. Slavin mentions several studies in which middle-school teachers had lower expectations for lower SES students, and those expectations resulted in a self-fulfilling prophecy in student performance (Slavin, 2006). As teachers, we must remember that all students have value, and all students can learn; we simply have to make sure that we provide the proper environment for them to succeed. We also need to recognize that many students in a lower SES situation come to school poorly equipped for success. Many arrive having eaten no breakfast, with minimal prospects for lunch. They have little encouragement at home; in fact, they are often latchkey kids whose parents are not even at home when they get out of school. Teachers need to recognize when these situations are impacting their students, and work to counter them as much as possible. Teachers also should be aware of how peer relationships among these students can impact their learning. Students who are mocked and ridiculed daily at school are not going to be able to learn well, if they learn anything at all. Teachers should strive to create an atmosphere where all students can learn.

Conclusion

Petronius' statement thousands of years ago could very well be an indictment of our educational system today. We produce students who have one of the most comprehensive educations in the world, but who are not equipped to function in society, much less succeed. We have virtually eliminated the basis of morality in education, and are now struggling to replace it with something, with little success. A return to the basics is needed, but simply returning to the basics may not be enough. We need to expand our idea of "the basics" to include teaching

students the skills to function in modern society, and we need to encourage them to explore their own interests while we are doing it. It's not an easy proposition, but the rewards far outweigh the difficulty.

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