

**NORTHCENTRAL UNIVERSITY
ASSIGNMENT COVER SHEET**

Learner: **Steven Diaz**

THIS FORM MUST BE COMPLETELY FILLED IN

Please Follow These Procedures: If requested by your mentor, use an assignment cover sheet as the first page of the **word processor** file. Use "headers" to indicate your course code, assignment number, and your name on each page of the assignment/homework including this assignment cover sheet. .

Keep a Photocopy or Electronic Copy Of Your Assignments: You may need to re-submit assignments if your mentor has indicated that you may or must do so.

Academic Integrity: All work submitted in each course must be the Learner's own. This includes all assignments, exams, term papers, and other projects required by the faculty mentor. The knowing submission of another persons work represented as that of the Learner's without properly citing the source of the work will be considered plagiarism and will result in an unsatisfactory grade for the work submitted or for the entire course, and may result in academic dismissal.

LTM5005

Dr. James Gamble

**The Connected Classroom: Curriculum
Development and Technology**

**Assignment 2: Technology and
Students**

Dr. Gamble,

I apologize that I have been behind the course's pace, but as I mentioned in my introduction e-mail, I have a heavy teaching course load (8 courses during the summer) that hinders my time management. I will be working hard this week to be back on the course pace. I apologize for the inconveniences.

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Technology and Students

Steven Diaz

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Technology and Students

My first experiences using technology in school was the calculator and the computer during my high school years in the 1980's. I remember the fascination and excitement I experienced of having a calculator that could help me grasp better the concepts and skills of my favorite class, mathematics. I looked for possible ways of using this tool to augment my curiosity and learn mathematics in an interesting, fun, engaging, and meaningful manner. My imagination ran wild those days looking for creative and productive uses of this tool for solving practical problems in my daily life. The computer challenged me to think in a logical and structured fashion, which I was not accustomed to do. I spent countless hours writing simple computer programs that could help me minimize and expedite the tedious tasks of doing computations by hand. These technological devices sparked my imagination, creativity, motivation, and interest to learn more and apply what I learned to my daily life activities. These tools incited curiosity for learning, an important human quality necessary for the learning process become meaningful and an authentic experience.

Unfortunately, my teachers at that time did not exhaust the potential benefits of these technological tools in their classroom practices. McCain and Jukes (2001) recognized how the power of our paradigms can influence our perceptions of the world. Therefore, I infer my teachers' industrial model of thinking shortsighted their vision and missed the opportunity to improve the quality of their classroom practices with the new technologies emerging at that time. The sparks of curiosity and imagination that I experienced with the calculator and computer were subdued by the traditional instructional methods used by most of my teachers, which according to McCain and Jukes (2001), teaching was driven by a mass production mentality, "The needs and desires of the individual student gave way to the perceived average needs and desires of the

masses” (p. 30). From my experience, learning became monotonous, predictable, and lacked a meaningful purpose other than to make it to graduation.

My learning experiences during my undergraduate studies were no different from my high school years. Most of my professors continued using traditional instructional approaches (i.e. lectures and/or recitations), even though, the technology was emerging before their eyes and giving them the opportunity to teach differently and bring alive their knowledge and expertise. No wonder I took so many computer courses to meet my elective requirements! Computer courses were one of the few college courses that brought back those sparks of imagination, creativity, motivation, and curiosity that I experienced in high school. When I became a math teacher, ironically and unfortunately, I continue practicing the same traditional instructional approaches that I reproached as ineffective and inhibitive. Teaching similarly as most of my old teachers did and as I observed most of my colleagues were doing in their classrooms, it was my only option since I lacked pedagogical knowledge, preparation, and experience to try a different instructional approach.

In my community, I have been recognized several times as a good teacher for the passion, dedication, and hard work I give to my practice. However, I am still not satisfied with my classroom practices. This dissatisfaction is due to my belief there is always something more that I can do to improve teaching and learning in my classroom. I find difficult accepting students in my classroom who are unmotivated, disinterested, and passively learning mathematics. These students are missing the opportunity to understand and appreciate the key role mathematics play in the world we live. I believe education opens the doors of opportunities for a better and productive life by providing the necessary knowledge and skills to understand the world around us and to make the best informed decisions possible.

Nevertheless, if I continue teaching using the same instructional methods that I experienced in school then I will be contradicting my own philosophy of education. I will be creating obstacles instead of providing opportunities for my students to succeed. I will be prolonging the same problems or issues that have been affecting our classrooms instead of solving them. I will be subduing my students' creativity, imagination, motivation, and curiosity for learning in the same manner I experienced it when I was a student. If I continue taking away from students the opportunity to own the learning experiences when using a teacher-centered instructional approach, then my math classroom will continue being considered dull, irrelevant, disconnected and disempowering for most of my students.

My interest in the field of instructional technology is a consequence of my dissatisfaction with the classroom practices I use and my quest to create the perfect, positive and productive classroom environment, where students are fully engaged, actively participating and taking ownership of the learning process. In this classroom environment, the course objectives become relevant, useful, and connected to my students' experiences and needs. Student will strive to do their best and achieve their goals since I will provide opportunities to explore thoroughly their intellectual interests and curiosities. The Department of Educational Technology of Boise State University (2008) defines clearly and concisely how I view instructional technology, "A way of teaching...a way of instruction" (para. 2). Even when technology has always sparked my imagination, creativity, curiosity, and motivation since my youth, instructional technology is not solely about the technology; instead, it is about how I can focus what technology induces in me into my teaching practice to set up my classroom with meaningful and authentic learning experiences.

Technology has been pervading every daily activity in our lives, but Bowers claims it is still one part of our modern culture that has not been completely understood (as cited in Provenzo, Brett, and McCloskey, 2005). Brooks-Young (2005) stated, “Technology use is no longer an optional part of life outside the classroom and should not be optional inside the classroom either” (p.15). To attain the perfect classroom learning environment, I find imperative to start reflecting and understanding how computers and other technological devices are influencing the way students gain learning experiences in their everyday lives. I have reached a juncture in my teaching career in which I consider my classroom practices are no longer effective. Therefore, I have found necessary to re-think my practice, so I can continue teaching with the same passion, dedication, and hard work that has characterized my career. Students need the best qualified teachers to provide and maintain the best learning experiences. Tabron (2008) stated “Teaching is a complex activity, an odd combination of creativity and planning” (para. 5). From my point of view, instructional technology is a catalyst for transformation (Earle, 2002) a teacher must undergo to use technology creatively in their classroom with the clear purpose for effectively attaining defined educational goals, standards, and objectives.

Provenzo, Brett, and McCloskey (2005) stated the ecology of the classroom is changed when computers are used in the teaching and learning process. I have experienced such changes in my developmental math courses after integrating in my classroom practice a web-based adaptive learning and assessment system (i.e. ALEKS) to address a serious problem in my classroom learning environment. Students are placed in developmental mathematics courses when they demonstrate lacking the basic skills to succeed in college level math courses. From my experience, these students typically show the following disabling behaviors: poor study habits, poor time management, math anxiety, lack of motivation, lack of focus, frustration, apathetic,

chronic absenteeism, and a passive approach for learning. These students' disabling behaviors were being augmented with the typical lectures and recitation given in math courses, creating serious problems of low academic performances and retention issues for the school.

The National Dropout Prevention Center/Network (2007) believes that technology is a viable alternative of learning for those students who struggle learning in the traditional classroom. Students in the remedial courses are usually the ones who struggled previously with the traditional math classrooms; therefore, I found compelling to make the decision of integrating technology in these courses to change the instructional model that could minimize the observed typical disabling behaviors of my developmental math students. In a research project sponsored by the Office of Educational Research and Improvement of the U.S. Department of Education (n.d.), researchers found that technology has several effects on students such as they take a more active role in the learning process, increases motivation, builds up self-esteem, capable of handling more complex assignments and higher-order thinking, promotes peer-tutoring, and the tendency to use more outside resources. I have observed these effects on my students, but what has been a pleasant surprise is the improvement of their study skills such as reading the course textbook, asking more questions, note taking, attending tutoring sessions and practicing math problems.

My role as an instructor has changed significantly since integrating technology in my developmental math courses. I have stopped being solely a lecturer and the main source of knowledge to gradually become a facilitator of knowledge. Now, I assist, support, and guide students in the learning process by providing the necessary resources that lead them to take ownership of their learning and succeed. Among other effects of technology that I have experienced in my teaching practices, and which were mentioned by the Office of Educational

Research and Improvement of the U.S. Department of Education (n.d.), are the following: taking the position of becoming a learner once again, having greater communication and collaboration with other colleagues inside and outside the school setting, being more in contact with outside resources and increasing my involvement in professional growth activities. In other words, I have been overcoming the tendency of working in isolation, which it has inhibited my professional growth in the past.

Creating learning opportunities for successful attainment of the course objectives has been the most important change since using technology, which significantly differs with my previous practice as a lecturer that consisted on just covering the curriculum regardless the students learned it or not. Technology has improved my skills to closely monitor my students' performances which was very difficult to do when using assessment tools such as the traditional written assignments, quizzes, and tests. Olson (2004) stated the primary reason any school and teacher should embrace technology is the ability of technological tools to provide accurate and timely data that can be used to identify students' individual needs and focus instruction for students' improvement. Teachers having accurate and timely data about their students imply they can provide immediate feedback and intervention, which is particularly necessary with struggling students. Irving (2006) stated "Teachers need tools to better understand their students' learning as they engage their students in learning experiences" (para. 20). Technology has significantly improved the communication between my students and me, in which I have become more accessible and sensible to understand what my students need to succeed. I have learned more about my students since changing my role as a facilitator than I ever did as a lecturer.

In summary, the gradual changes in my role as a teacher or instructor which have been occurring the last few years are due to my increased interest in the field of instructional

technology. Studying this field or discipline will continue helping me develop the ability or skill to work with discomfort that McCain and Jukes (2001) stated is necessary to master the changes I will face for integrating technology in my practice, and which I will naturally resist due to my old ways of thinking. From my perspective, becoming an instructional technologist means not missing the opportunities of using technology to enhance my classroom practices that will lead to a positive and productive learning environment. Instructional technology has sparked again my curiosity and creativity, which I need to continue my passion, dedication, and hard work for teaching. I teach because I want to make a difference in the lives of my students by providing them the opportunities to succeed. Instructional technology is the means to put into practice my philosophy of education: *Education opens the doors of opportunities.*

References

- Brooks-Young, S. (2005). Integration issues for 21st-century teachers. *Today's Catholic Teacher*, 38(4), 14-17. Retrieved July 8, 2008, from ProQuest Religion database.
- Department of Educational Technology of Boise State University. (2008). *What is educational technology*. Retrieved July 15, 2008, from <http://edtech.boisestate.edu/web/edtech.htm>.
- Earle, R.S. (2002). *The integration of instructional technology into public education: Promises and challenges*. Retrieved July 10, 2008, from <http://www.bookstoread.com/etp/earle.pdf>.
- Irving, K. E. (2006). The impact of educational technology on student achievement: Assessment of and for learning. *Science Educator*, 15(1), 13-20. Retrieved July 8, 2008, from ProQuest Education Journals database.
- McCain, T., & Jukes, I. (2001). *Windows on the future: Education in the age of technology*. Thousand Oaks, CA: Corwin Press, Inc.
- National Dropout Prevention Center/Network. (2007). *Effective strategies*. Retrieved July 15, 2008, from http://www.dropoutprevention.org/effstrat/educational_technology/overview.htm.
- Office of Educational Research and Improvement of the U.S. Department of Education. (n.d.). *Technology and Education Reform*. Retrieved July 15, 2008, from <http://www.ed.gov/pubs/EdReformStudies/EdTech/index.html>.
- Olson, A. (2004). Technology that moves assessment and student achievement forward. *MultiMedia & Internet@Schools*, 11(6), 26-28. Retrieved July 8, 2008, from Research Library database.
- Provenzo, E. F., Brett, A., & McCloskey, G. N. (2005). *Computers, curriculum, and cultural change*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Tabron, J. (2008). How to Find What Clicks in the Classroom. *The Chronicle of Higher Education*, 54(29), p. NA. Retrieved July 07, 2008, from Academic OneFile via Gale.