

iPods, Textbooks, and Chapter Tests: Studying in the Digital Age

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*Learning how to learn is one of the most important things that a student can learn to do.
(Flippo, 2004, p. 100)*

Chelcie, a seventeen-year-old senior, dances into the house after school. Always dancing, she is rarely seen without her iPod attached to her ears. With a quick “Hello” she races downstairs to the computer. Her head bobs to the music as she informs me that the latest and greatest CD has just been released. Chelcie quickly purchases the CD online and begins downloading it to her iPod. Opening a new screen, she updates her blog and posts comments on several friends’ web pages. As she works, her cell phone vibrates. She reads the message and “texts” back in a language that the few adults understand. Chelcie then remembers that she has to find information on the California Gold Rush for a class project. Yet another screen is opened and she proceeds to “Google” the information. After printing off several pages about the gold rush, Chelcie disconnects her iPod and tells me she has to run. I ask her where she is going and she replies that she has to study. I ask if she needs the computer and she replies that she has her textbook. For her “study time,” Chelcie’s digital world is powered off and set aside, with the exception of her iPod and the occasional text message.

No one doubts that technology is impacting students’ lives today. Students growing up in this technological age cannot imagine a life without computers (Lewis & Fabos, 2005). Yet, students may not feel like their use of chat rooms, instant messaging, and other computer usage is “technology”; it is an accepted “fact of life, a way of being in the world” (Lewis & Fabos, 2005, p. 470). Technology is often the common medium through which students interact with peers, as well as with online communities, socially but not necessarily academically. Most adolescents do not make connections about reading and writing taking place as they navigate chat rooms, web pages, and instant messages however, the literacies used are extensive. Even though students may not make the connection between their use of computers out of school with literacy, they are engaged with literacies as they read, critique, and make meaning while interacting with digital texts.

New Literacies

With the continuous changes that occur in literacy, the definition of “literacy” must broaden to include advances in technology and the impact these advances have on teaching and learning (Bruce, 2004; Durrant & Green, 2004; Hagood, Stevens, & Reinking, 2004; International Reading Association, 2002; Leu, Kinzer, Coiro, & Cammack, 2004; Luke, 2004; Street, 2003). This broader definition of literacy, often labeled New Literacies, encompasses “tools like digital technologies that redefine texts and literacies” (O'Brien, 2006, p. 34). Current research offers a glimpse of what is

possible when New Literacies are part of a classroom. Students are collaborating, using technology, creating, and exploring their worlds in multiple forms (Alvermann & Hagood, 2000; Kist, 2005; Leu, 2001; Tierney & Rogers, 2004).

The incorporation of New Literacies into classrooms shows signs of promise. Yet, the mandates of No Child Left Behind present challenges in this high-stakes testing era where most assessments are paper and pencil. Despite the dominance of old testing methods, New Literacies classrooms are creating opportunities for students to demonstrate knowledge in a variety of visual and auditory modes. It remains unclear what role technology can or will play in assisting students in their task of studying, particularly for content area exams.

As I reflected on my observations and discussion with Chelcie, it was very clear that she did not perceive technology as a studying tool. When asked what technology she used to study, she responded, “Does listening to my iPod count?” It seems that even though students are immersed daily in technology, preparing for examinations is only through the medium of the test, or in other words using textbooks and class notes.

In our age of accountability and adequate yearly progress, assessments drive teaching and become the focus of classroom instruction. Assessments remain a large part of students’ academic careers. Thus, studying consumes a large part of their lives as well. Study skills by definition are “tools that, when combined with reading, writing, and thinking skills and strategies, equip students for learning how to learn” (Flippo, 2004, p. 1). As students “learn how to learn”, it is essential that these skills become part of their study repertoire. Bean, Readence, and Baldwin (2007) list five characteristics of good study strategies which include:

1. They help students focus attention on important information.
2. They provide students with meaningful study goals.
3. They help students organize information.
4. They cause students to practice.
5. They encourage deep processing of information (p. 253).

Given the influence and incorporation of technology into the classroom, it becomes essential for educators and students to better understand the potentials and limitations that technology has as a study aid. More specifically, we should seek to know if technology can assist students in their studying in ways that print-based materials, such as textbooks and class notes, cannot.

Issues in technology use and studying

Technology is often viewed as an instrument that “simplifies” our lives. So, can technology simplify studying for students? Limitations do exist. First and foremost, students need to have some print-based literacy skills before they engage with technology as a means to gather information. As Wilder and Dressman (2006) argued:

“The Internet still requires a high degree of proficiency in the conventions of print literacy, including the ability to spell and type with accuracy, the ability to identify keywords, the ability to make sense of and distinguish between abbreviated descriptions of sites, and the ability to skim, recognize, and extract information from extended passages of text” (p. 210)

Whether students are searching the Internet, creating Powerpoints, or dialoging online, they need to be able to interact with text. The same demands of reading print-based texts apply to reading online texts. As Kress (2003) argued, students are actually using advanced reading skills when they encounter images and print on the screen because the text on the Internet does not follow the same linear paths that textbooks follow. Because students are so readily comfortable with technology many teachers may fail to teach basic technological skills. Transferring print literacy skills to technology requires direct instruction using online texts and hands-on guided practice with technology as a tool for learning (Wilder & Dressman, 2006).

Another limitation of using technology as a study tool is the issue of access. Within New Literacies classrooms there is potential for the achievement gap to widen between those students who have access to technology and those who do not (Alvermann, 2004). Students should not be “punished” because parents are not able to afford computers and access to the Internet. Therefore, if there is an increased emphasis on studying through the medium of technology, then schools need to make computers more readily available to students during the school day.

Potential contributions of technology and studying

Even with these limitations of using technology as a study tool, there is great potential to enhance and increase student learning. Perhaps the greatest strength of using technology as a study tool is the possibility of increasing student engagement. In fact, many of the studies conducted in the area of New Literacies addressed the issue of motivation (e.g., Alvermann & Hagood, 2000; Kist, 2005; O'Brien, 2006). Students who were previously marginalized by print-based literacies were able to find a space in a New Literacies classroom because multiple ideas and skills were needed and valued. With increased student engagement, teachers must be careful to use technology as a study tool because it genuinely enhances and deepens the learning of students.

One possibility for using technology as a study tool is through online discussions. Universities, as well as some K-12 schools, have implemented electronic-learning systems such as Blackboard and WebCT to encourage dialogue between students and teachers as well as among students. These learning systems offer an arena for students to discuss readings, post questions, and dialogue. But, formal systems are not necessary for the implementation of online dialogues. Teachers have implemented these informal discussions over the Internet as well. Albright, Purohit, and Walsh (2002) investigated the use of online discussions of fifty-five eighth-grade Chinese students in both science and literacy classes. The students within these classes were asked to “chat” online about novels read in their English class or about the phases of the moon in their science class. Albright et al., (2002) reported that students had meaningful discussions amongst each other; they asked questions, responded to each other, and evaluated each others comments.

The implementation of online discussions gave students the opportunity to collaborate with peers outside of school and allowed students to “study” with peers from their homes. These informal discussions also gave students the opportunity to ask questions that they may not have felt comfortable asking in the classroom. Learning extended beyond the school hours. Students had the opportunity to evaluate opinions, defend their own

opinions, and apply their knowledge with peers and teachers through these discussion boards.

Another avenue for the integration of technology and studying is through online tutoring. Houge, Peyton, Geier, and Petrie (in press) conducted a study that investigated the effectiveness literacy tutoring delivered through web cameras. Through this online delivery model, middle and high school students had the opportunity to receive instruction from preservice teachers that increased their literacy skills. The authors chose to target rural students who may not have had the opportunity to receive tutoring through face-to-face instruction because of distance from the university.

Students can also use technology as a study tool through general use of the Internet. Textbooks characteristically use difficult vocabulary and minimally explain unfamiliar concepts. Caution is necessary because information found on the Internet may not be directly tied to or even aligned with the content studied in the classroom. With appropriate literacy skills, students can be encouraged to search out information and ask clarifying questions. Thus, students may potentially become more engaged in the learning process.

Finally, adolescents love music. Incorporating music as a study aid can assist students in studying and learning difficult concepts. As Chelcie informed me, music helped her relax and helped her think; the steady rhythm focused her thoughts. Perhaps music is a tool that could be used to assist students in achieving a state of flow. This state is reached through “concentration, interest and enjoyment in an activity” (Shernoff, Csikszentmihalyi, Schneider, & Shernoff, 2003, p. 161). Yet again, technology has the potential to draw students in and engage them in learning and studying.

I do believe that technology is something that should be embraced by the classroom. I believe it is our challenge as educators to find meaningful ways to incorporate technology into classrooms and to assist students in using it as a meaningful study tool. From the literature regarding the implementation of New Literacies into the classroom, it appears that one of greatest possibilities is the potential that technology has to engage and motivate students.

Future directions

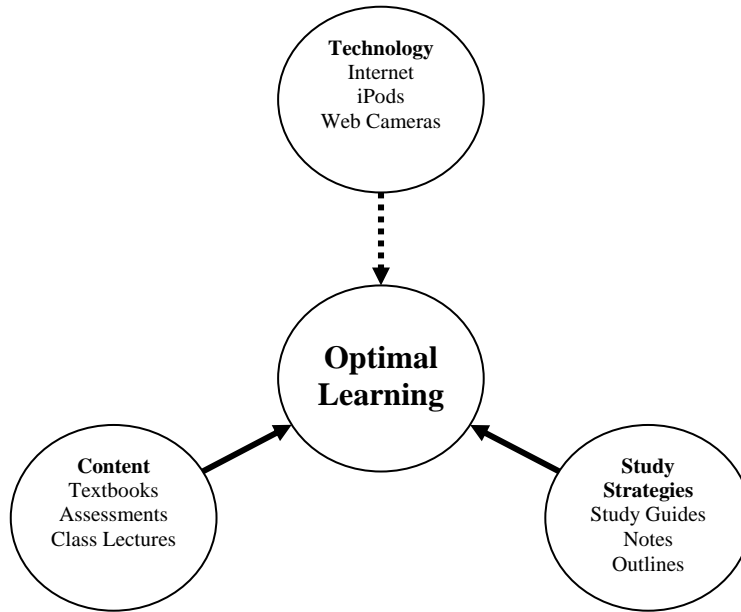
It is obvious that vast amounts of research are still needed to fully understand the possibilities, challenges, and limitations of technology. However, as Lewis and Fabos (2005) stated, the term technology is more often associated with an older generation’s view to mean “complicated and difficult to understand or operate” (p. 470). Thus, our greatest source of information may in fact be our students. The question of whether technology is a beneficial study aid would be best answered by the students themselves.

Teachers can increase student engagement by implementing New Literacies practices into the classroom. Yet a delicate balancing act must be maintained because the assessment of students is still archaic. Until today’s assessments become more “high tech,” the traditional study skills and strategies that have been used for many years remain appropriate. Paper and pencil tests need not be thrown out. Nor is technology the answer to all of education’s problems. But, as a study tool technology is the untouched resource to engage students and to increase critical analysis of a variety of text sources (see Figure 1).

Because changes are made so rapidly in the world of technology it is impossible to know what awaits us in the future. Perhaps a time will come when Chelcie will “power

on” multiple technologies as she seeks to learn or better understand content. Perhaps a time will come when Chelcie, and other adolescents, will become more concerned with “learning” content rather than “passing a test”. But for now she is content in her world where she mixes her in-school and out-of-school literacies as she sees fit. One surety is that whether her studying includes textbooks, notes, or the Internet, her iPod will be close by.

Figure 1. Technology is a missing element that is necessary for optimal learning.



References

- Albright, J., Purohit, K., & Walsh, C. (2002). Louise Rosenblatt seeks QtAznBoi@aol.com for LTR: Using chat rooms in interdisciplinary middle school classrooms. *Journal of Adolescent & Adult Literacy*, 45, 692-705.
- Alvermann, D. E. (2004). Preface. In D. E. Alvermann, (Ed.), *Adolescents and literacies in a digital world*. (pp. vii-xi). New York: Peter Lang.
- Alvermann, D. E., & Hagood, M. C. (2000). Fandom and critical media literacy. *Journal of Adolescent & Adult Literacy*, 43, 436-446.
- Bean, T. W., Readence, J. E., & Baldwin, R. S. (2007). *Content area literacy: An integrated approach* (9th ed.). Dubuque, IA: Kendall/Hunt.
- Bruce, B. C. (2004). Diversity and critical social engagement: How changing technologies enable new modes of literacy in changing circumstances. In D. E. Alvermann (Ed.), *Adolescents and literacies in a digital world*. New York: Peter Lang.
- Durrant, C., & Green, B. (2004). Literacy and the new technologies in school education: Meeting the l(IT)eracy challenge? In R. B. Ruddell & N. J. Unrau (Eds.), *Theoretical models and processes of reading*. (5th ed., pp. 1 -20). Newark: International Reading Association.
- Flippo, R. F. (2004). *Texts and tests: Teaching study skills across content areas*. Portsmouth, NH: Heinemann.
- Hagood, M. C., Stevens, L. P., & Reinking, D. (2004). What do *they* have to teach us? Talkin' 'cross generations! In D. E. Alvermann (Ed.), *Adolescents and literacies in a digital world* (pp. 68-83). New York: Peter Lang.
- Houge, T. T., Peyton, D., Geier, C., & Petrie, B. (in press). Adolescent literacy tutoring: Face-to-face and via web-cam technology. *Reading Psychology*.
- International Reading Association. (2002). *Integrating literacy and technology in the curriculum: A position statement of the International Reading Association*. Retrieved October 14, 2005, from http://www.reading.org/downloads/positions/ps1048_technology.pdf.
- Kist, W. (2005). *New literacies in action: Teaching and learning in multiple media*. New York: Teachers College Press.
- Kress, G. (2003). *Literacy in the new media age*. London: Routledge.
- Leu, D. J., Jr. (2001). Internet project: Preparing students for new literacies in a global village. *The Reading Teacher*, 54, 568-572.

- Leu, D. J., Jr., Kinzer, C. K., Coiro, J. L., & Cammack, D. W. (2004). Toward a theory of new literacies emerging from the Internet and other information and communication technologies. In R. B. Ruddell & N. J. Unrau (Eds.), *Theoretical Models and Processes of Reading* (5th ed., pp. 1570-1613). Newark, DE: International Reading Association.
- Lewis, C., & Fabos, B. (2005). Instant messaging, literacies, and social identities. *Reading Research Quarterly*, 40, 470-501.
- Luke, C. (2004). Re-crafting media and ICT literacies. In D. E. Alvermann (Ed.), *Adolescents and literacies in a digital world* (pp. 132-146). New York: Peter Lang.
- Nixon, H. (2003). New research literacies for contemporary research into literacy and new media? *Reading Research Quarterly*, 38, 407-413.
- O'Brien, D. (2006). "Struggling" adolescents' engagement in multimediating: Countering the institutional construction of incompetence. In D. E. Alvermann, K. A. Hinchman, D. W. Moore, S. F. Phelps, & D. R. Waff (Eds.), *Reconceptualizing the literacies in adolescents' lives* (pp. 29-46). Mahwah, NJ: Lawrence Erlbaum.
- Shernoff, D. J., Csikszentmihalyi, M., Schneider, B., & Shernoff, E. S. (2003). Student engagement in high school classrooms from the perspective of flow theory. *School Psychology Quarterly*, 18, 158-176.
- Street, B. (2003). What's "new" in new literacy studies? Critical approaches to literacy in theory and practice. *Literacy, Education and Development*, 5, 1523-1615.
- Tierney, R. J., & Rogers, T. (2004). Process/content/design/critique: Generative and dynamic evaluation in a digital world. *The Reading Teacher*, 58, 218-221.
- Wilder, P., & Dressman, M. (2006). New literacies, enduring challenges? The influence of capital on adolescent readers' Internet practices. In D. E. Alvermann, K. A. Hinchman, D. W. Moore, S. F. Phelps, & D. R. Waff (Eds.), *Reconceptualizing the literacies in adolescents' lives* (pp. 205-229). Mahwah, NJ: Lawrence Erlbaum.

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