

USING INTERACTIVE COURSEWARE IN THE GENERATION iY CLASSROOM: LEADING THE WAY WITH TECHNOLOGY

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ABSTRACT

Using interactive courseware as an alternative to printed textbooks is an innovative approach to educating the technology-savvy members of Generation iY. It has been suggested that members of Generation iY are overwhelmed, overconnected, overprotected, and overserved. This can create challenges for professors attempting to stay relevant in the eyes of today's students. One of the differences between Generation iY students and many business professors is their openness to alternative pedagogy options, especially when it comes to textbook alternatives. Despite the availability of technologically-advanced textbook alternatives, many professors choose a traditional, printed textbook because they are comfortable with this option. On the other hand, members of Generation iY are open to using more integrated textbook alternatives such as interactive courseware. An example of interactive courseware available for many business courses is described, along with best practices for using this technology as a replacement to printed textbooks in traditional classrooms.

INTRODUCTION

The students sitting in today's college classroom have grown up with the Internet, the information super-highway, at their fingers-tips. They have never known a world where the Internet was not readily available to them. Because they have had constant access to the Internet, they have earned themselves the titles "Internet generation" and "digital natives" (Microsoft; Schmidt & Hawkins, 2008, n.p.). They are more comfortable in the online world than they are in face-to-face encounters. Indeed, reality for today's students exists in the online world.

Teaching these digital natives are college professors. For many professors, the manner in which they were trained in the academy, with pencils, chalkboards, and hard-backed textbooks, is archaic compared to the technology-enhanced pedagogy that is available today. Faced with the reality of a new breed of students, college professors are challenged to both relate to and engage these technology-savvy students. In order for college professors to stay current with these digital natives, they must lead the way with a technology-rich pedagogy. One option to lead the way among faculty is to integrate an innovative textbook choice in face-to-face classrooms.

This paper will proceed as follows: First, a summary profile of today's college students will be provided, with special attention given to their extensive use of technology in day-to-day life. Second, a textbook continuum will show the variety of textbook options that are available for most business courses, along with an overview of both faculty and student comfort zones relating to these options. The final section will discuss interactive courseware as it relates to the profile of Generation iY, best practices for integrating it into face-to-face classrooms, and feedback from members of the generation regarding its use.

GENERATION IY

Those born roughly between 1984 and 2002 are known as Generation Y or the Millennials. The younger Millennials (those born between 1990 and 2002) have recently been termed Generation iY (Elmore, 2010). This subset of Generation Y now occupies college classrooms. The group has many similarities to Generation Y, but is uniquely separate because, more than any group in history, this younger population is defined by technology. They have grown up literally always connected to the Internet; thus, the “i” in Generation iY.

PORTRAIT OF A GENERATION

Elmore (2010), who coined the term Generation iY, described this cohort as a generation that is overwhelmed, overconnected, overprotected, and overserved. He claimed that Generation iY is overwhelmed because of the many stressors they face from both internal and external sources. They have deep-seated desires to be the best. Moreover, this generation has been told that they are, indeed, “the best” from the time they were young. Parents, educators, and mentors have been telling them that they are gifted, they are unique, and they are special their entire lives. Living-up to the expectations that others put on them (and that they put on themselves) becomes stressful and overwhelming for many college-aged students.

Second, Generation iY is overconnected thanks to the Internet and social networking sites like Facebook and Twitter (Elmore, 2010). Nearly every move that Generation iYers make is documented, recorded, and posted for approval from peers within their social networks. Decisions are made collaboratively, relationships are established and nurtured, and self-esteem is developed (or, worse, destroyed) online.

A positive result of this never-ending access to each other is that group cohesion has increased. Collaboration is natural and routine for members of this generation. This can be both appealing and frustrating for professors. On the one hand, professors can take advantage of Generation iY’s comfort with group work. On the other hand, it is difficult for students to disengage from social networking sites even during class. At times, they may be disconnected from the classroom conversation. Morrow (2011) called this “intellectual disengagement” (p. 55). He suggested that this generation has not been taught to think independently, consistent with Elmore’s (2010) description of the overconnected generation.

Third, Generation iYers are overprotected by parents, educators, and legislators (Elmore, 2010). The term helicopter parent is often used to describe those parents who hover over their children to ensure they have every advantage and to protect them from all potential harm (Gibbs, 2005). The result of the hovering done by parents in the formative years is evident in the classroom. Parents are accustomed to helping their children in every avenue of their education and the students are accustomed to receiving this help. As a result of this academic hovering, too many Generation iYers are ill-prepared for the pressures and demands of college.

Finally, Elmore (2010) claimed that Generation iY has become an overserved generation because they have been pampered, helped, praised, and served since before they were born. In an attempt to build self-esteem and self-worth in children, the culture has allowed the pendulum to swing to

a generation that borders on narcissism. Indeed, psychologists Twenge and Campbell (2009) claimed that this generation is the most self-aware, self-absorbed, and entitled generation in history. For educators, a central question from students in every classroom has become, “why should I care?” The professor is challenged not only to make the content relevant to students, but to help the students recognize the relevancy of the content.

INNOVATIVE TECHNOLOGY USERS

One of the most illuminating aspects of Generation iY is their comfort with technology. When it comes to technology, the generation knows no limits and adheres to no rules. Elmore (2010) claimed they are at ease with out-of-the-box uses of technology and seek to continually redefine how it is used. E-mail is reduced to a way to communicate with older generations because instant-messaging, texting, and posting messages through Facebook and Twitter are faster and more efficient means of communicating with each other.

Morrow (2011) claimed that professors must help students strategically and wisely use technology. Yet, the appropriate use of innovative technologies is one challenge of today’s professors. The authors suggest that professors should be daring about technology and innovative in finding ways to use it in the classroom. This suggestion goes far beyond PowerPoint or Excel spreadsheets, since most Generation iYers do not find these resources innovative. One solution to this challenge is interactive courseware, which can replace traditional textbooks even in face-to-face classrooms. Elmore (2010) claimed, “Theirs is the world of the iPod, iBook, iPhone, iChat, iMovie, iPad, and iTunes” (p. 13). Now it is safe to add iTextbook to the list!

TEXTBOOK CONTINUUM

While the physical appearance of printed texts has changed over the years, the traditional printed version is still the primary option for today’s college professor. Lewin (2009) asserted that “textbooks have not gone the way of the scroll yet, but many educators say that it will not be long before they are replaced by digital versions—or supplanted altogether by lessons assembled from the wealth of free courseware, educational games, videos and projects on the Web” (n.p.). Indeed, online, electronic textbooks and interactive courseware are readily available in many subject areas. While printed textbooks have not disappeared, many options are available that can either replace or supplement them.

Developments in the publishing industry have led to a textbook continuum with a traditional, printed textbook at one end and interactive courseware at the other. There also seems to be textbook comfort zones that coincide with the textbook continuum, with the heavier concentrations on each end of the continuum representing generational preferences.

Numerous professors use printed textbooks and supplement the content with printed study guides and lecture notes, many of which are provided by publishers. Other professors use printed textbooks with web-based practice quizzes, video cases, and homework problems. This is where many of today’s college professors are most comfortable. However, the continuum swings beyond these traditional resources to more technology-rich options.

(insert Figure 1 here)

In the middle of the continuum are digital textbooks and e-textbooks, but a distinction between these two can be made. Digital textbooks are electronic, PDF versions of their paper counterparts. E-textbooks, also read on-screen using a computer or virtually any mobile device, are more interactive and include features not available in a digital textbook. They often include highlighting capabilities, annotation features, hyperlinking to supplemental resources, simulations, tutorials, glossaries, dictionaries, and review tests (Vernon, 2006).

On the far right of the textbook continuum is interactive courseware that employs 3D virtual environments with avatars and extensive storylines. This courseware is web-based and requires student-users to interact in a virtual environment. This interactivity, or the interaction between the student and the computer program, transforms an e-textbook from a relatively passive resource to an active learning platform (Schwarz, Brusilovsky, & Weber, 1996). The most advanced 3D courseware places the student-user in the virtual environment as an avatar. These virtual environments enable students to assume roles in particular contexts, such as business organizations, where they can view realistic scenarios. Students learn by doing as they play a role in the storyline (Slator, et al. 1999). In this way, interactive courseware facilitates student-learning by creating a virtual experience.

As shown on the continuum, the comfort level of college professors with the various textbook options is more unbalanced than that of Generation iYers. If the dominant use of printed textbooks is an indication of what professors are comfortable with, then their comfort zone is more concentrated at the left end of the textbook continuum. On the other hand, the comfort zone of Generation iYers is more balanced suggesting that they are open to any of the options along the continuum, but with a preference at the far right. Thus, it appears that there is an overlap in the comfort zones. Because the overlap is predominantly at the left of the continuum, the burden of increasing the overlap at the right edge falls on college professors. By embracing more technology-rich alternatives, professors can offer a wider range of options to this tech-savvy generation. True, Generation iYers need to continue developing their ability to glean information from traditional textbooks, but professors need to meet Generation iYers at the far right of the continuum by employing more interactive options in the classroom as well.

Fortunately, for professors who want to use more technologically-advanced resources, options exist for a variety of business courses. Moreover, these interactive courseware options may bridge a gap between the professor and Generation iYers if the professor leads the way.

ENGAGING GENERATION IY WITH INTERACTIVE COURSEWARE

Elmore (2010) observed that Generation iY wants “an experience before an explanation” (p. 49). He suggested that it is far more important for educators to help students in this generation experience a topic in ways that capture their imagination than it is to meticulously present a lecture.

Because of students’ desire for action and interaction, Sweet (2010) used the acronym EPIC to describe this generation: Experiential, Participatory, Image-rich, and Connected. They do not

want to be passive learners, but desire hands-on experiences. Further, Elmore suggested that educators should not be asking themselves, “what do I want to say?” as much as they should be asking, “how can I say it creatively and experientially?” (p. 49).

Interactive courseware is one such creative option. It enables the content of courses to be explained in a virtual context where students view storylines and interact with avatars. Vertical Learning Curve (VLC) is one publisher of interactive courseware the authors have used. VLC provides interactive courseware for a variety of business courses, including introductory courses in Management, Accounting, Marketing, Human Resource Management, and International Business; International Trade; Strategy; and several more. Moreover, VLC markets itself as a company attempting to aid professors in making curriculum “fun, relevant, and sticky” (vlglobal.com). Clearly, it is a firm interested in developing courseware consistent with Elmore’s (2010) suggestions for reaching Generation iY.

VLC takes the content normally found in textbook chapters and divides it into modules that can be assigned and completed according to a professor’s timeline. Each module integrates various media such as brief readings, animated case studies, podcasts, and web-based resources to communicate the content of the module to students. Many of the resources integrated into the module are easily found on public websites, where students have access even after the courseware expires. Other resources are specifically tied to the VLC courseware, where information is presented in an easy-to-understand manner.

BEST PRACTICES FOR INTERACTIVE COURSEWARE

After the authors used VLC in three different business courses over two semesters, some practices have emerged regarding the best way to use interactive courseware in the classroom. These suggestions are made with the profile of Generation iY in mind.

The modules in the VLC courseware provide a brief explanation of terminology and course concepts, introduce new material, and provide a storyline in the context of a work environment. They do not, however, provide in-depth explanations of course concepts. For this reason, introduction and explanation of new material should be presented by the professor during class time before modules are begun. It is during class time that a synthesized unit can be presented that will help students make important connections between the various modules and topics.

Due to the variety in material and assignments, it is often difficult for students to know how to plan their time to complete a module. Do they need two hours or six hours to complete the written assignments and read through all of the resources? By presenting the professor’s expectations about paper-length, number of citations, etc. at the forefront, potential student frustration can be minimized.

VLC’s strength is that it provides a virtual, business-world context for course material, giving students much-needed exposure to a business environment that is absent in printed textbooks. However, printed textbooks present topics in separate and distinct chapters and subsections, which provide a structured approach to course content. Interactive courseware, such as found with VLC, integrates topics throughout various modules. There is no obvious sequential

presentation of material such as students are used to having in printed textbooks. Consequently, students may find it difficult to synthesize information about major topics. If interactive courseware is used, it is critical that the professor help steer the students through the course content. This can be accomplished in a number of ways.

First, a list of objectives should be provided to students before they begin each module. If a traditional semester calendar is employed, approximately one new set of objectives per week (and per module) would be distributed. Providing objectives helps students identify the critical components of the module. A sample objective list is provided in Appendix I.

Another way to guide students through the content of each module is to distribute an outline of the important content before the module is begun. A sample outline for a VLC module is provided in Appendix II. In this outline, the major themes are identified as well as the critical components within these themes. As a result, students know what information they should be gleaning from the modules and the most critical components of the curriculum can be easily identified.

FEEDBACK FROM GENERATION IY

After using VLC's interactive courseware and implementing these practices, 85 typical Generation iYers were surveyed about their perceptions of interactive courseware. Feedback from these traditional business students was centered around three themes: the experience of a virtual environment, the extensive use of the Internet for resources, and the role of the professor. Not surprising, much of the feedback was consistent with Elmore's (2010) description of Generation iY.

Nearly 50% of the students surveyed were positive about the fact that the interactive courseware provided a simulated, business experience. Student comments were positive about the fact that it provided real-life contexts, was a hands-on experience, and simulated a workplace environment. These comments fit the profile of Generation iYers as students who want "an experience before an explanation" (Elmore, 2010, p. 49). Since many of these students have little business experience prior to these courses, they reported that the exposure provided by the courseware was valuable. Plus, students claimed that the storylines were easy to follow, convenient, and flexible.

About one-half of the students surveyed indicated that they liked using the web to obtain course material such as podcasts, articles, and other resources. One positive aspect for the professor is that interactive courseware, by its very nature, employs web-based resources that are both current and dynamic. Many of the websites that students are directed to are actual resources used by professionals in the areas being studied. Elmore (2010) explained that Generation iYers want to know why information is relevant before they want to know the information. Exposing them to resources that they will need as business professionals fulfills the relevancy mandate. For example, the Human Resources Management courseware directs students to the Equal Employment Opportunity Commission website, which Human Resource professionals use to obtain information on federal employment discrimination laws.

Interactive courseware is a complete package, including assignments, assessments, and resources. Thus, the professor's role can range from that of a supervisor observing progress to an expert in the field providing substantial content. Feedback from Generation iYers indicated that they desire more guidance, direction, and explanation from professors rather than less. Perhaps this is telling of what Elmore (2010) called an overserved generation. Elmore claimed that Generation iY is accustomed to having information provided to them. Undeniably, some survey comments suggested there was too much individual work and that it took too much time to look-up information independently.

CONCLUSION

Students in today's college classrooms are measurably different from earlier Millennials. As members of Generation iY, they are more comfortable with technology than any previous generation, including many of their professors. Their openness to using the Internet as a resource stretches beyond social networking and includes technology-integrated textbooks.

For professors looking to lead the way in teaching Generation iY with new technologies, interactive courseware is one option to be explored. Using interactive courseware can widen the professors' comfort zone at the far right of the textbook continuum, increasing the overlap with the Generation iY comfort zone. This can create a more balanced comfort zone for professors which, in turn, will enable professors to engage Generation iYers along the entire continuum. As professors begin to embrace the power of more technology-rich options in their pedagogy, the comfort-zone overlap with Generation iYers will increase. The combination of technology and sound pedagogy will enrich the learning experience for Generation iYers. It will unite Generation iYers, who have never known life without the Internet, and professors, who remember life before the Internet.

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Appendix I

Example Objectives for an International Finance Module

After completing this module, the student should:

- Understand the factors that affect foreign exchange rates.
- Be able to explain the trade cycle phenomenon and how it is related to interest rate changes.
- Understand the relationship between oil prices and the U.S. dollar.
- Understand the role and function of letters of credit.

Appendix II

Example Outline for an International Finance Module

After completing this week's module, you should be able to answer the following questions:

FX Rate Movement

All else equal, how do the following factors affect the fx rate?

- Interest Rates
- Unemployment rates
- Trade Balance
- Gross Domestic Product

What is the *trade cycle* phenomenon?

How are trade cycles related to interest rates changes?

Why is the causal link between oil price movements and exchange rates so strong?

What typically happens to the USD when oil prices rise?

Letters of Credit

Differentiate between *commercial letter of credit* and *standby letter of credit*.

Who governs the letters of credit in international transactions?

Differentiate between the *issuing bank* and the *advising or confirming bank*.

Briefly explain how a letter of credit works.

What documents usually have to be presented in a letter of credit?

Identify several ways that the Trade Information Center can help a U.S. company begin or expand international exports.

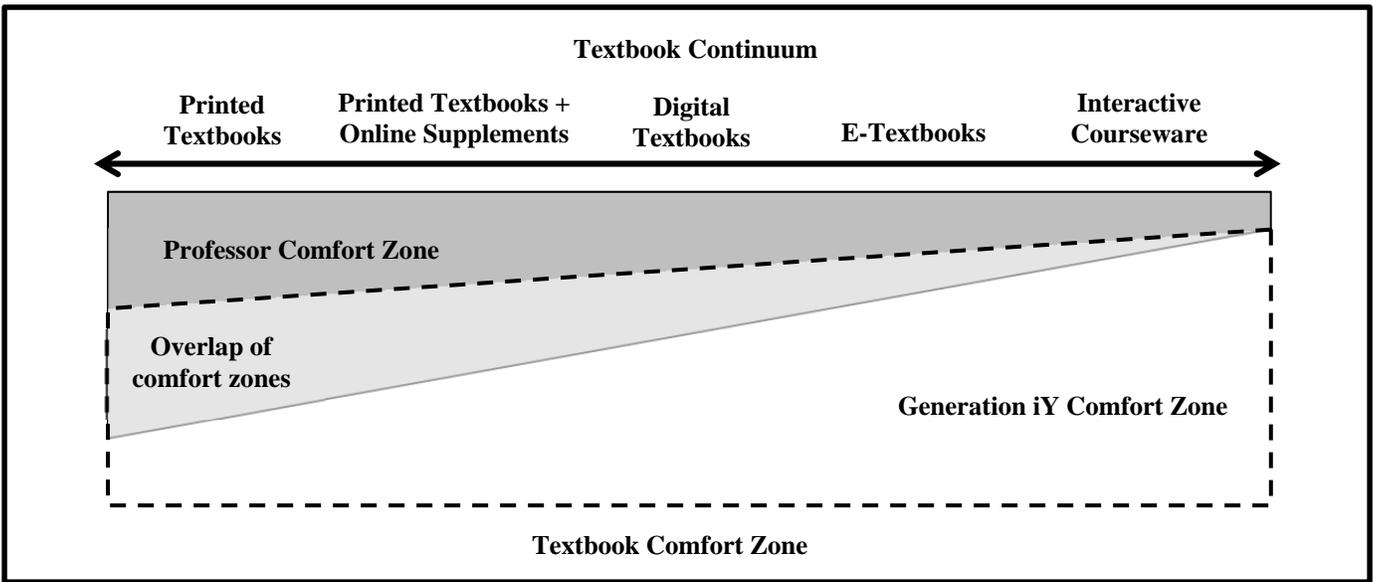


Figure 1: Textbook Continuum