There are significant numbers of readers who have not taken the plunge into the world of e-book reading, including university professors. This article describes two case studies where the professors experimented with the use of e-books. Case study one involved the integration of e-books into college classroom use. The focus of the investigation was to determine whether students assigned to the classes would purchase a hardbound paper copy of the book, a loose-leaf paper copy, or rent access to an e-book copy, and to determine their reasons for doing so. The author concluded students selected e-Books for multiple reasons. Case study two was designed to experience fiction and non-fiction e-book reading through various electronic devices. Mixed methodologies including focused questions via researcher-developed questionnaires, journaling and recorded book discussions were used. The researchers concluded not all students enjoy the electronic reading experience and should not be forced to switch from print to e-book. Thinking back to the first grade studies, we learned there isn’t one best way to teach all children to read, and, using today’s vernacular, not all children are going to learn to read using the same technologies.
Natives, Immigrants, Tourists and Aliens: Two Case Studies

Teachers must think carefully about the modalities they have available for use when they are engaged with children in the teaching of reading. In preparing students to live in a global world, the use of technology as a teaching tool is no longer an option. McKeon (2010) writes, “Using electronic text as a literacy tool has become increasingly important for students as we embrace a technologically global world” (p. 246). Further, according to Rainie, Zickuhr, Purcell, Madden and Brenner (2012), the rise of e-books in American culture is part of a larger story about a shift from printed to digital material. Marino (2012) reports 43% of Americans ages 16 and older read extended text such as magazines, journals, and news articles on a digital device (e-book readers, tablet computers, regular computers, cellular phones). Marino adds only 21% of adults polled in February 2012 had read an e-book.

Nowhere in the United States is the range of knowledge, skills, and dispositions regarding the digital revolution and new literacies as pronounced as they are in our nation’s schools: elementary, middle, junior high, senior high, two-year and four-year colleges and universities. These emerging technologies require an entire new vernacular. For example, throughout the country, schools across the grade span are requesting students BYOD (Bring Your Own Device). Textbooks, assignments, note taking and other traditional pen and paper activities are replaced by whatever device the student has available. BYOD and other terms describe the new state of affairs in today’s classrooms. The following section describes the various stages of development relative to new technologies and new literacies today’s teachers may find in their classrooms.

Natives, Immigrants, Tourists, and Aliens

Prensky (2001) introduced the term “digital natives” to capture the unique composition and needs of our P-12 students immersed and surrounded by digital technology from birth. Like previous generations, students in the 21st century embraced their own styles, fads, music, and entertainment. However, Prensky argued, “The arrival and rapid dissemination of digital technology in the last decades of the twentieth century” (p. 2) has molded current students neurologically, psychologically, socially, and emotionally in unprecedented ways. Their use of technology for learning, communication, and entertainment is native to them. This submersion has caused our students “to think and process information fundamentally different” (p. 2) from previous generations because the skills required to process the technology are different from those used to ‘hunt and gather’ information. Much of the information presented digitally has already been collected, thus eliminating the searching, identifying, organizing, constructing, and testing used prior to the advent of instantaneous digital information. Emerging research suggests this cognitive shift has resulted in physiological and neurological changes in the anatomy of and neurological processing in the brain (Greenfield, 2011). Unlike many of their P-12 teachers, these students have been either surrounded by or immersed in technology from birth; they are natives of the digital world.

“Digital immigrants” (Prensky, 2001) have adapted to the technology demands of the 21st century. Prior to immigrating, these individuals approached learning, communicating, and entertaining themselves very differently than the digital natives. Printed materials were the
primary sources of information most usually found in books, periodicals, and encyclopedias. They received instruction in face-to-face classrooms among their classmates. Communication was primary via talking either face-to-face or by telephone. And, their entertainment involved spending time physically with other people; they are natives of a very different world. It is likely their involvement in technology was slow and incremental, but over time they have become comfortable using the devices. Although they are capable of using the devices effectively, many of our current P-12 teachers are digital immigrants. They have moved into the digital era, but this is not their native language.

Another group of digital users are the “digital tourists” (Billington, 2011). Much like tourists who travel, these individuals have no intentions of packing up and immigrating to the digital world; they are very content living in their native, pre-digital world. Their engagement in the digital world falls along a spectrum, from the use of touch-tone phones to using Skype to engaging in online social networks. Most tend to visit the technologies as opposed to moving in and adopting the way of the 21st century. Many of our P-12 teachers are digital tourists trying to teach digital natives. The challenge facing P-12 teachers and teacher educators is learning how to teach immigrants and tourists to effectively instruct natives.

One additional group of digital users, “digital aliens,” are described as mostly older “pre-DOS folk who think bandwidth is the size of the orchestra and a hard drive is the I-5 through the Grape Vine [sic] when it’s icy” (Alderman, 2013, para. 6). Digital aliens are outsiders in the digital arena, or engage the new technologies on a minimal level. They may have some basic skills, but adapt slowly with the fast-paced changes in the world of technology. There are a limited number of classroom teachers who would be considered total digital aliens as most have beyond minimal skills with computers and other technological devices. However, some may not use Smartboards, read from e-text or consider integrating technology into their instructional repertoire. These teachers would likely be digital aliens. It seems logical, however, the infectious nature of technology would naturally move classroom teachers to a higher level of digital technology citizenship status.

New Literacies

The changes in new digital technologies produce changes in the way readers read. Reading on a screen is a different type of activity than reading from a printed text. E-reading may also affect the way students view reading as the new technology may serve as a halo effect for reluctant readers. Lankshear and Knobel (2003) refer to “new literacies” and believe students need engagement with these new modalities. Fears of a digital divide with the haves and the have nots (with various levels as described above) lead to concern about social and economical inequities that may emerge as a result of issues with access and availability to technology within and among classrooms throughout the United States.

Semali (2001) argues teaching literacy to today’s children requires teaching traditional literacy as well as “…how to read and produce the kinds of texts typical of the emerging information and multimedia age” (para 1.). He further argues, that “electronic texts are destabilizing previously held conceptions of literacy and are requiring students and teachers to examine assumptions about reading, writing, books, and what we know—and think we know—
about curriculum practice” (para. 2). By helping students comprehend and communicate through both traditional and emerging technologies, they will be better prepared for the information age.

**Rationale for Case Studies**

In spite of all the news regarding the popularity of electronic devises for reading e-books, there are significant numbers of readers who have not taken the plunge into the world of e-book reading. Their reasons for not embracing the e-book revolution vary widely. Among the numbers of non-e-book proponents are readers of all ages and occupations, including university professors who teach courses to undergraduate and graduate education majors. Through a series of informal discussions, four university professors realized they (a) were not engaged in the e-book reading revolution, and (b) were not effectively teaching their undergraduate and graduate teacher education candidates how to e-read using e-books.

Armed with the knowledge good modeling is one of the most effective ways of preparing future teachers, including reading teachers, it dawned on the professors they needed not only to talk about using e-books, but they, themselves, needed to experience e-books so they would be able to integrate them successfully in their university courses. Thus, the e-book via electronic device journey began.

This manuscript describes the journeys of four professors who threw caution to the wind and began to head straight in to the technology revolution. The article describes two case studies where the professors experimented with the use of e-books. One professor engaged in using e-technology with three sections of a university course, while the other three professors began at the novice level, choosing to read via e-book to experience what new learners might experience. What follows are their stories of e-book integration.

**Case Study One**

Case study one involved the integration of e-books into three sections of a university course. In an attempt to transition e-books to college classroom use, three sections of one course used an online e-book as part of a packet for an introduction to special education class. The class was an introductory special education course requiring students to read from the book entitled, *Exceptional Children: An Introduction to Special Education* (10th ed.) (Heward, 2013). The focus of the investigation was to determine whether students assigned to the classes would purchase a hardbound paper copy of the book, a loose-leaf paper copy, or rent access to an e-book copy, and to determine their reasons for doing so.

**Participants**

The population used in this investigation consisted of 138 digital natives or immigrants who were enrolled in three sections of an introductory special education course during spring semester 2012 at a four-year regional public university in the Midwest. The instructor self-identified as a digital tourist. The university focuses primarily on undergraduate education and began as a normal school; it maintains its reputation as a teacher preparation institution. Roughly 87% of the students were Caucasians, 3% of African decent, and the remaining 10% were either
mixed or did not identify themselves by race. Students enrolled in the class were primarily sophomores or juniors, so they had experience with taking courses on campus with both large and small group class sizes. Students enrolled in the classes were mixed in terms of academic majors; there were 62% early childhood, middle childhood, adolescent/young adult (secondary), intervention services (special education), business/marketing, world language, physical education, music, and art majors, while 38% were intervention services (special education) majors. Because more than half of the students in the class were not majoring in special education, they believed the book was only needed for the semester and did not plan to keep the book for the future. Table 1 identifies the demographic information about the class.

Table 1

**Participant Demographics by Section**

<table>
<thead>
<tr>
<th>Section</th>
<th>Total Students</th>
<th>Special Ed Majors</th>
<th>Other Majors</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>31</td>
<td>9</td>
<td>20</td>
<td>23</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>89</td>
<td>35</td>
<td>55</td>
<td>64</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>6</td>
<td>13</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Totals</td>
<td>138</td>
<td>50</td>
<td>88</td>
<td>98</td>
<td>40</td>
</tr>
</tbody>
</table>

**Methodology**

The first step in this investigatory process was to introduce the students to the e-book idea and to explain the perceived advantages and disadvantages of the e-book options. The investigator noted several advantages to integrating the e-textbook into the college classroom and pointed these out to the students. First, e-texts were physically easier for students because they did not have to carry an additional textbook. They could move about buildings and campus sites without carrying heavy-laden book bags or carryall. In addition, they were able to access content from multiple sources and location through different websites (i.e., Google, publishing companies, etc.) without regard to size or location of site. Third, some of the presentation could be set up in the same layout as print textbooks with single page (portrait/landscape views) and dual page (landscape). Fourth, the material could be integrated directly into the PowerPoint presentations, study guides, and chapter tests.

One additional advantage included facilitating the studying and learning of new material, which could be accomplished with the new e-books. Teachers could choose to highlight text options to focus student learning more effectively during reading. Important vocabulary, key points, major viewpoints could be identified for those students needing special attention and assistance. This could serve like post-it notes from teacher to students, asking questions, directing the students in their note-taking directly into pages or chapters for later study. Improved multitasking would allow students to quickly return to the last page they were viewing using features such as “Go To Page, Zoom, Next / Prev” page navigation. Students could also search online texts and histories within a title or topic of interest.
Available features, such as the Bookshelf, Table of Contents, a Notes Manager and Rich Audio Options including synchronized highlighting of text and multilingual glossary (in certain titles) could be beneficial to students’ comprehension and retention of the material. Other available features included Help, Hotspot links to web-based media and dual platforms for Mac- or Windows-based e-Text. Study groups could also be created allowing students to share notes with friends via the iPad's Bluetooth connection or in the same WiFi hotspot. Many of these advantages were not unique to students using e-books; however, the instructor thought it was important for students to realize some of these features and advantages were not unlike those of a paper text, or the duplicated materials.

Along with positive aspects of e-book learning, the course instructor pointed out the negative aspects to e-book learning for students. For example, each student would need to be concerned with security and the need for authentication via usernames and passwords. All information kept in electronic form would be open to hackers and clever students seeking to override teachers’ plans.

After students learned of the advantages and disadvantages of reading the e-book, they selected whether they wanted to purchase a hardbound paper copy of the book, a loose-leaf paper copy, or rent access to an e-book copy. Once the students had identified their choices, they were asked to respond to a survey regarding their selection and to identify reasons for their selections.

Results

The options for instructional text for the semester were: (a) a hardbound paper copy of the book, (b) a loose-leaf paper copy, or (c) a rented e-book copy. Given these options, approximately 49% (68 students) chose to rent the e-book, while 46% (57 students) selected the bound, 3-hole punched copy. Very few students (5%; 13 students) chose to purchase the hardbound copy. Table 2 identifies the textbook options by section.

Table 2

<table>
<thead>
<tr>
<th>Section</th>
<th>Total Numbers</th>
<th>E-books</th>
<th>3-hole punched</th>
<th>Hard bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>31</td>
<td>17</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>89</td>
<td>42</td>
<td>38</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>9</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Totals</td>
<td>138</td>
<td>68</td>
<td>57</td>
<td>12</td>
</tr>
</tbody>
</table>

E-book option. The second purpose for this investigation was to determine why the students chose the versions they did. The first, and most frequently reported response from those who selected the e-book option, was ease of use (no books to carry, accessible from multiple locations). Students valued their time and the ability to access the class readings from multiple locations met their needs. Another frequently cited reason for the e-book preference was the direct connections made between the PowerPoint presentations, the study guides, and the chapter
tests. Students found this information helpful. Students also enjoyed the post-it notes from the teacher, the highlight options from the teacher, and the note taking they were able to do directly into the pages or chapters of the text. The students appeared to want access to the book at all times, and preferred the teacher to continue to provide assistance to them while they read.

**Three-hole punched version.** For those students who chose the bound three-hole punched copy, their primary reason for selecting the paper copy was cost. The bound book was cheaper and could be placed in a binder purchased separately at lower cost than the hardback. The students would only need to bring those sections required for notes to class on individual days. Some special education majors chose this option rather than the hardbound copy. They did not believe the electronic version was an option because they wanted to access the material later. This also had the additional feature of being lighter when put in their backpacks.

**Hardback version.** For those students who chose the hardbound version of the text, the most frequently reported reason for doing so was desire to keep the book after the class was over as a referent. The permanent nature of these books appealed to some students.

**Reflections at the end of the semester.** Toward the end of the semester, the instructor asked the students to reflect on their book choices. Students were asked to respond whether they would make the same choice again, or whether they would choose a different option. The results were:

**E-book option.** Of the 68 students who originally selected the e-book option of the text, all indicated they would make the same choice since they were all non-special education majors. In an informal discussion with the students who used the e-book, some of the reasons for these choices include: those reasons listed above (ease of carrying laptop which they tended to bring to classes anyway, least expensive cost of a book they were not planning to keep or need in the future, and access to electronic resources online while reading).

**Three-hole punched version.** Of the 57 students who selected the three-hole punched version of the text, 41 indicated they would make the same choice while five said they would select the e-book option and the remaining 11 said they would select the hardback version. In an informal discussion of students who selected the three-hole punched version, some of the reasons for these choices include: the special education majors did not realize the need for a more durable copy of the book they could keep to study for state-required testing and the non-special education students thought this might be a book they would want as a resource later.

**Hardback version.** Of the 12 people who selected the hardback version of the text, 10 indicated they would make the same choice and two said they would select the three-hole punched version. In an informal discussion of the students who selected the hardback version, some of the reasons for these choices include: this copy would provide resource material and would have cost less than the hardbound.
Summary

Students see the value of a temporary copy; the ease of access online, and the computer/iPad version of the book made the e-book reading more mobile. To encourage the use of e-books, publishers have reduced the financial commitment for students by pricing these less than the paper versions. In conclusion, e-Books have multiple reasons for their use: light weight for mobility, and decreased costs. Technology can bring students and teachers toward future electronic media. The uniqueness of these electronic books or e-books is where teaching is headed, and faculty need to be prepared to embrace the changing media.

Case Study Two

The primary focus of the investigation for case study two was to experience e-book reading through various electronic devices using both fiction and non-fiction e-books. Each participant read adolescent fiction and non-fiction (selected to focus on the e-reader, not so much the content of the book) on a Kindle, NOOK, and an iPad, as well as traditional print, and recorded logistical, efferent and aesthetic reactions (Rosenblatt, 1994) to the experiences. Specifically, then, the purpose of this investigation was to examine first-time users’ reactions to various electronic devices for fiction and non-fiction e-book reading. Incidental explorations included identifying skills specific to e-reading, identifying potential difficulties associated with e-reading, and identifying teacher biases toward print and e-readers.

Participants

Three participants were involved with the investigation: Allison, Carol, and Paula. Allison’s primary teaching responsibility was with middle school pre-service teachers. Her primary teaching area included language arts methods and classes related to phonics and the role of phonics in the reading process. She thought of herself as a digital immigrant; she was eager to explore and implement new technologies in her personal life and in her teaching. Carol’s teaching responsibilities were primarily with graduate students teaching theories and foundations, as well as assessment courses. Likewise, Carol viewed herself as a digital immigrant. Both Allison and Carol used PCs and Macs, Smartphones, iPads/iPods, engaged in social networking, and experimented with emerging technologies; however, prior to this study, neither had read an e-book. Paula’s teaching responsibilities were split between graduate and undergraduate classes; however, she taught intervention and assessment courses at both levels. She saw herself as a digital tourist. Although she learned how to use many of the same tools as Allison and Carol, she chose to remain in the world of print and face-to-face relationships.

The participants’ pre-study attitudes toward using e-readers were mixed. Allison (the younger of the three) was more willing to plunge into unknown waters. She expressed her eagerness to try several devices. Carol and Paula (both the same age) seemed willing but a bit apprehensive. Carol’s familiarity with an iPhone made her a bit more comfortable with the navigation of similar devices. Of the three, Paula was more reticent in her approach to the study. Although she understood the significance of personal experience with using e-readers, she was the least technologically prepared participant.
Participants’ identification with digital immigrants propelled their participation in the study. Each professor understood the digital divide between themselves and their students and the importance of closing the gap to provide timely, appropriate instruction for digital texts in P-12 classrooms; each recognized the growing numbers of e-readers in their classrooms, and each realized it was time to enter the world of e-reading so as to be better prepared personally to address appropriate pedagogy and challenges faced with reading digital texts. Allison was very excited to embark on the use of e-readers. As a reader, she wanted to understand the reading process and experience from a personal perspective. Carol, too, understood the importance of being able to speak about e-reading from a personal experience. She was eager to try several different devices and was very interested in the pedagogical implications. Paula’s motivation to join the study stemmed from her desire to more appropriately prepare her classroom teachers to use e-readers in their own classrooms. Like the other two participants, she was a voracious reader.

Methodology

The investigation used mixed methodologies including focused questions via researcher-developed questionnaires, journaling and recorded book discussions. Over the course of three months, each participant read one-fourth of the fiction book and one-fourth of the non-fiction book using each format. Table 1 provides the rotation schedule used for reading, with the same process used for both fiction and non-fiction. Recorded book discussions were held immediately after each book was completed.

Table 3

<table>
<thead>
<tr>
<th>PARTICIPANT</th>
<th>KINDLE</th>
<th>NOOK</th>
<th>IPAD</th>
<th>PRINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
</tr>
<tr>
<td>C</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
</tr>
<tr>
<td>P</td>
<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

The fiction e-book, *The Grimm Legacy* (Shulman, 2010) was read first, followed by the non-fiction e-book, *Left for Dead* (Nelson, 2002). The participants thought it best to use easy reading material so the focus could be on the reading experience, rather than vocabulary, sentence structure, etc.

Participants completed questionnaires before and after reading the text on each device, and journaled about their experiences. After analyzing the questionnaires, journals, and book discussions, the participants believed their experiences should be shared collectively, rather than individually. Several significant findings seem to emanate from this investigation that deserved to be shared and discussed. We have formulated them into logistical experiences and aesthetic experiences from individual and classroom perspectives.

The logistical experience. The first thing that comes to mind in this category is, “How many reading professors does it take to download a book onto a Nook, iPad, and Kindle?” With
unclear directions, credit card security issues, and other logistical problems, downloading the books quickly emerged as a significant problem in moving this investigation forward. One participant commented, “Purchasing the book was rather entertaining because I didn’t have a clue how to do it.” Another lamented, “I have been trying for two days to register this device. I can’t get a signal so now I have to go to the store.” Once the books were downloaded, participants began the reading experience. This difficulty would not likely be a concern in the teacher education or P-12 classroom because working with digital devices is native to most students; however, it was a reminder ‘how-to’ guides are important for scaffolding digital tourists’ and immigrants’ migration.

Cost was another factor identified as part of the logistical experience. One participant began the study with quite an attitude about e-books because she never buys books. She wrote, “I think what is really bothering me with the e-readers is the fact that I have to buy books. I’m so used to borrowing them from the library (for free) and I tend to be quite stingy with my money so that is really the only downfall I am seeing from these e-readers.” All her reading outside work was completed with books borrowed from the library, so paying for downloads quickly became a negative aspect of e-book reading…until she discovered her local library had e-books available for borrowing, and there were sites on the Internet providing access to books available to download for free. Later, after waiting two hours for an appointment and experimenting with a download, she wrote, “I decided it was quite convenient not to have to order the book online and wait for it. Something about instant gratification (and no shipping costs) really fit the bill today and I thought nothing of spending $15.99 on my new book.”

Acquisition of the books for schools is very similar to personal acquisition. Many of the classic pieces of literature can be downloaded free from sites such as www.free-ebooks.net, www.gutenberg.org, www.kobobooks.com, www.amazon.com, www.barnesandnoble.com, and www.bookboon.com. The purchase of downloadable books for P-12 schools is very similar to the purchase of printed materials. Gift cards for Amazon, Barnes and Noble, and iTunes allow schools to purchase multiple licenses to upload on devices with very little security risk. However, the price per e-book is considerably higher than the cost of a paperback book.

Features of the e-reader devices were also considered in the logistical experience category. Perhaps because participants did not struggle with the text, perhaps because they were pressed for time, or perhaps because they were occupied with just being engaged with the text, they ignored exploring the various features of the e-reader devices, designed to make them appealing. Participants largely ignored the highlighting, underlining, vocabulary assistance, and note taking features of the e-readers. During one of the book conversations, it was noted by the participants they did not use any of the features on the e-reader. The participants (perhaps, because of their ages), enjoyed they could increase the size of the text for easy reading without reading glasses.

Features included on the e-readers such as highlight, bookmarking, dictionary, and thesaurus can be used very effectively in reading teacher education courses by instructors teaching reading methods, content reading, language arts methods and materials, and reading assessment and intervention courses. Students in populations with exceptionalities may find changing font size and color or screen brightness to be very suitable modifications. Likewise, P-
12 classroom teachers can use these features to augment vocabulary instruction across content areas. Some devices can even determine the reading level of the text to help teachers and students determine the appropriateness of the readability.

Measures of progress were noted by participants as positive aspects of e-books, similar to the print version. Reading to the end of a chapter, seeing page numbers, or percent of book completed were viewed as positive aspects of the e-readers. However, participants were a bit particular about which measures they preferred. One participant wrote, “There wasn’t a page number but a percent. That made me frustrated because I track pages.” Bookmarks were also mentioned in a favorable light. As one participant explained, “Love the bookmarks. You can’t lose them like you can with real books.”

**The aesthetic experience.** One of the participants was very excited about the iPad and the aesthetic experience achieved during reading: “I’m pretty excited about the iPad simulating page turning. I like that it feels like turning real pages.” Later, the same participant commented, “The thing I discovered was when I turned the iPad from vertical orientation to horizontal orientation, it appeared more like a real book. I liked that!” Another participant referred to one of the e-reader devices as “…a cold hard plastic device in my hand.” However, after spending time with the device, she wrote, “My thoughts obviously changed from a bit of fear (apprehension) to actually enjoying the experience and wishing I didn’t have to pass it on for…next week.”

These digital immigrants found it took several encounters with the devices before the experience became more “natural.” Certain features helped the participants bridge their skepticism with the “cold hard plastic devices,” such as horizontal, dual page presentation (iPad), the swipe of the finger to reflect the flipping of the page (iPad and NOOK), and the gray-tone look of a book page (the Kindle). Becoming familiar with these features will enable reading professors to coach resistant students through the acclimation of using a digital device. Likewise, classroom teachers can emphasize these features for students whose previous literacy experiences have been solely with printed materials.

Pictures (or the lack of pictures) led all participants to express their displeasure about their reading experiences. The non-fiction book had pictures of all the people in the story as well as artifacts relevant to the story line. Once each participant had her turn with the print version, immediate dissatisfaction was noted as the e-book versions did not have any of the pictures included in the print version. One participant commented, “An immediate comparison from the iPad to the book may lead to an unfair evaluation of the iPad, but I’m not sure. I was mad about the pictures…the book had pictures and the e-books did not. I felt cheated not to have the pictures in the e-books.”

The absence of pictures on these particular devices could foster some frustration with our digital natives, who seem to be very visually stimulated and engaged (Greenfield, 2011). Many of our PreK-12 natives have grown accustomed to surfing on the internet, which is heavily laden with graphics, as are their electronic handheld games and console video games. Reluctant readers are often engaged by illustrations, photos, and graphics, so the absence of such may not be enough to lure them into the device. Likewise, they have grown accustomed to audio-enhanced and augmented games and websites. In some respects, the digital e-readers may not be as
Natives, Immigrants, Tourists, and Aliens

engaging to these students. Reading professors need to address these potential pitfalls with future teachers and work to develop appropriate modifications or pre-teaching to prepare the PreK-12, at-risk, or reluctant students for this element.

For one participant, her aesthetic experience with the e-books does not compare to the euphoria achieved with a real book. Her frustration was evident when she wrote, “That’s it—I feel detached from the book!!! Clicking buttons is not at all like turning pages.” When it was her turn to read the print version, she wrote, “Ah! I have the book! I am looking forward to flipping pages, curling up to read, and smelling the essence of words.” She continued to be disenfranchised with the e-readers. While she was reading from the iPad, she wrote, “I am still feeling very detached from the book and story; I ended up spending hours playing the games rather than reading.”

Teachers of reading are sure to be faced with those students who just have to have a “real” (print-based) book, and they must creatively find ways to lure these readers to, at the very least, explore the world of digital texts. Current pedagogy still relies on the use of printed books in the classroom; this practice must move closer to the inclusion of digital devices for more than just games. As the participants concurred, reading e-readers requires a different skill set. Reading digitally requires the reader to know how to operate the device, access the support tools, read digital text, and minimize distractibility, especially in devices offering functions other than reading (iPad, NOOK, Kindle Fire). Professors of reading need to provide their pre-service teachers with guidelines for best practices in reading using e-readers to help classroom teachers effectively use devices across the content areas.

The notion of cuddling with the book was the focus of several participants’ comments related to their aesthetic experiences. About the book, one participant wrote, “It was wonderful cuddling up with this book because I had the print version.” Later, after experiences with all three e-readers, she wrote, “I think I’m really starting to like this over print. I didn’t expect that to happen at all. I can indeed ‘cuddle up’ with this iPad unlike I previously predicted. Sweet!” Another participant wrote, “I had no trouble cuddling up. I actually found it easier because it is lighter in my hands and less bulky.”

Students who have experienced ‘cuddling up’ with their handheld devices may find this transition to be bizarre; however, this may not be the case with many of their classroom teachers. As Rosenblatt (1994) noted, the sensual experience is part of how the reader constructs and interprets the reading experience. It is important for reading professionals to understand some readers may not be able duplicate the sensual experience of touching aging pages and sniffing fragrances found only in older books when reading with an e-reader. Nor does this mean only digital tourists or immigrants may have this infinity for printed text. Likewise, it is important to acknowledge some digital immigrants, such as two of our participants, can find comparable pleasure and delight from cuddling up with their devices. Perhaps, the challenges facing professors of reading is how to provide and support classrooms where explorations with both approaches are encouraged, and how to collectively develop guidelines for best practices for using e-readers in reading instruction.
Conclusions

This investigation featured the exploits of three readers experimenting with print books and e-books using a Nook, iPad, and Kindle. Logistically, it was difficult to get started with some of the devices. While improvements may have been made in various systems for getting started with these electronic devices, less determined readers may have just quit and opted out of the e-reading experience. Educators need to be aware difficulties may be experienced during the initial start-up of the electronic reading device.

A variety of financial obstacles impede full implementation of electronic readers into today’s classrooms. From the costs of the devices to ordering books, maintaining devices, and keeping the batteries charged, educators need to be aware of the obvious costs for implementing electronic classrooms, but also the hidden costs such as batteries, buying books, and charging stations.

Many of the unique features of the Nook, iPad, and Kindle were largely ignored by the participants in this investigation. This was due, we believe, to time constraints. It takes far more time to explore the features of the various e-readers and become proficient with them independently, than it does to be shown how to use them. Teachers should be aware students will struggle to use the features or ignore them completely. Had the participants in this investigation selected text to read at their instructional or frustration levels, they may have been forced to use more of the unique features. Both positive and negative reactions to forced learning may have presented themselves. Significant research needs to be conducted with students to determine what features they are using, how they are using them, and whether the features can be used more effectively.

Aesthetically, two of the three participants actually viewed the e-reader devices in a positive light. These readers became converts, so the fallacy you can’t teach an old dog new tricks applies to them. One of the participants wrote, “I’m now packing for our trip and I am packing the Nook; however, I know I will still throw in a print version of a book or two. I can’t see myself going on a trip without a copy of a book in my bag.” A second of the participants began exploring the reading of e-books on her smart phone and continues to read on the smart phone.

The final participant clings tightly to the print versions of books. A quote from by Ray Bradbury, accurately expresses her feelings: “A computer does not smell...If a book is new, it smells great. If a book is old, it smells even better...And it stays with you forever. But the computer doesn’t do that for you. I’m sorry” (Weller, 2010, para. 113).

An unexpected outcome of this study is the dialogue it created at college-level, departmental, and informal meetings. Each of the participants acknowledged the value of wrestling with the devices, learning how to read digital texts, and struggling with unexpected difficulties throughout the study. The value of the study extended beyond learning how to use and read with an e-reader; it placed each participant back in the seat of the learner. It reminded us of what it means to learn something new in a short amount of time. We were disconnected from our pre-service and graduate students and discovered engaging in digital reading has merit,
inside and outside of the classroom. We also realized we more intentionally needed to include the use of e-readers in our courses to help classroom teachers implement the use of digital readers in their classrooms. Several districts in our area have building-wide iPad or notebook distribution, so their teachers need to know how to effectively use them in their reading instruction. Finally, we confirmed the importance of experiencing the same challenges facing our PreK-12 pre-service and in-service teachers; this allowed each of us to include authentic discussions about the benefits and challenges of implementing the use of e-readers.

There is much to be learned from all participants in this investigation. Educators must remember the participants herein were willing risk-takers. They were willing to put their print versions down and experiment with the e-books. Not all readers will be willing to do this. As stated earlier, these readers seemed to adjust well to the change, but, if they were struggling with the text, the results may have been very different, so the happy ending may not have been so happy if difficult text would have been used. It is also important to note none of these readers selected the same format to continue their e-reading experiences. Educators should be aware even among e-reading devices, there is great diversity among preferences. From our final reader who is still not reading e-books, educators should be reminded print versions of text, along with e-books and e-readers are a matter of preference. Not all students will enjoy the electronic reading experience and should not be forced to switch from print to e-book. Thinking back to the first grade studies, we learned there isn’t one best way to teach all children to read, and, using today’s vernacular, not all children are going to learn to read using the same technologies. Some will prefer low tech such as print, while others may prefer much more sophisticated strategies. Rainie et al., (201) summarize it best, “In a head-to-head competition, people prefer e-books to printed books when they want speedy access and portability, but print wins out when people are reading to children and sharing books with others” (para. 16).

**Conclusions**

Because numerous reports suggest e-book reading is on the rise, it is important for teacher educators to understand which devices are being used and to understand who are the e-book readers. Marino (2012) notes only 29% of American adults own a personal e-book device such as a tablet or reader. She writes Baby Boomers (ages 50-64) are more likely to own an e-reader while Generation Xers (30-49) are more likely to own a tablet and Millennials (under 30) are more likely to own a smart phone. The conclusion she draws is older adults are more likely to own and read from devices designed specifically for reading while younger people read from a more multi-purpose device. As to who engages in e-book reading, Rainie et al. (2012) write:

Those who have taken the plunge into reading e-books stand out in almost every way from other kinds of readers. Foremost, they are relatively avid readers of books in all formats: 88% of those who read e-books in the past 12 months also read printed books. Compared with other book readers, they read more books. They read more frequently for a host of reasons: for pleasure, for research, for current events, and for work or school. They are also more likely than others to have bought their most recent book, rather than borrowed it, and they are more likely than others to say they prefer to purchase books in general, often starting their search online. (para. 3)
Marino’s infographic (2012) suggests readers who own an e-reader device tended to read more books in a year than those readers who did not own a device. Through numerous market studies, Owen (2011) concludes: “Today’s e-book power buyer—someone who buys an e-book at least once a week—is a 44-year-old woman who loves romance and is spending more on buying books now than in the past. She uses a dedicated e-reader like a Kindle instead of reading on her computer” (para. 1). Further insight into readers of electronic books might be gained with some data regarding perceptions of the advantages and disadvantages of e-book reading. Marino (2012) reported (according to a survey of e-book readers) of those who had read an e-book in the last year, 45% reported it was easier to read an e-book in bed; 53% said there was a wider selection, and 83% cited the ability to get books quickly as pluses for e-reading. On the negative side, 81% said a regular book is best for reading with a child, and 69% said regular books were best for sharing with others.

The various features of e-books could possibly be used to support adolescents’ reading development (Lefever-Davis & Pearman, 2005) as well as improve their attitude and motivation for reading. According to Tompkins (2002), children are excited about these emerging technologies, including e-books, and are enthusiastic about experimenting with all the technologies have to offer. Leu, Kinzer, Coiro, and Cammack (2004) conclude

The new literacies…include the skills, strategies, and dispositions necessary to successfully use and adapt to the rapidly changing information and communication technologies and contexts that continuously emerge in our world and influence all areas of our personal and professional lives. These new literacies allow us …to identify important questions, locate information, critically evaluate the usefulness of that information, synthesize information to answer those questions, and then communicate the answers to others. (p. 1572)

Teachers must be prepared to move from digital alien or tourist, to digital native, if they are to be successful in preparing our digital natives for the future.

References


