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# Instructors' Perceptions and Experiences Re: Creating and Implementing Customized E-Texts in Education Courses

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# **Instructors' Perceptions and Experiences Creating and Implementing Customized E-Texts in Education Courses** *Deepak Prem Subramony*

#### Introduction

This article presents a key portion of the findings obtained from a detailed case study conducted during the 2016-2017 academic year to develop a holistic understanding of the outcome of a major technological change initiative at a large Midwestern university's College of Education<sup>1</sup>. Launched in 2012 by the COE's Dean, this initiative<sup>2</sup> provided funding support to instructors<sup>3</sup> on a competitive basis to encourage the development and implementation of open alternative electronic textbooks<sup>4</sup> within their respective courses. It was envisaged as logically piggybacking a previous COE initiative that funded the issue of iPad devices to all undergraduate teacher preparation candidates within the College at no cost to them, as it would encourage the development of quality instructional content for delivery via the aforementioned iPads. By the start of the 2016-2017 academic year, the initiative had funded the development and implementation of multiple e-texts across several semesters, to the tune of roughly US\$77,000.

#### **E-Texts**

Applying digital media technologies<sup>5</sup> to traditional print textbooks has resulted in the emergence of e-texts (Stone & Baker-Eveleth, 2013a), which can be accessed via the Internet and downloaded onto personal electronic devices such as the laptops, tablets, e-readers, and smartphones that are owned by the vast majority of learners today (Rockinson-Szapkiw, Courduff, Carter, & Bennett, 2013). In fact, even though e-books have existed in some form or other since the 1970s – starting with Michael Hart launching his Project Gutenberg in 1971 that led to the creation of electronic versions of thousands of print books (Embong, Noor, Hashim, Ali, & Shaari, 2012) – they only started being adopted in significant numbers after the development of the aforementioned devices (Ditmyer, et al., 2012) and their subsequently ubiquitous penetration into human society. Devices such as iPads are increasingly playing a leading role in the educational process within developed/affluent nations, and along with e-materials/e-texts are forming the basis of electronic education in these societies (Laketa & Draculic, 2015).

E-texts represent a technological innovation influencing education that involves the use of digital/electronic books as reusable components providing building blocks for instructional content (Stone & Baker-Eveleth, 2013b). Rockinson-Szapkiw, et al. (2013, p. 260) described two formats in which e-texts existed at the time their piece was written: (a) "page-fidelity" e-texts

<sup>&</sup>lt;sup>1</sup> Hereinafter referred to within this article as the "COE."

<sup>&</sup>lt;sup>2</sup> Hereinafter referred to within this article as the "initiative."

<sup>&</sup>lt;sup>3</sup> The term "instructor" as used within this article refers to all individuals who received funding under the initiative, irrespective of faculty rank.

<sup>&</sup>lt;sup>4</sup> Hereinafter referred to within this article as "e-text(s)."

<sup>&</sup>lt;sup>5</sup> Hereinafter referred to within this article as "DMT."

featuring "no dynamic media, no active web links, and no capability to manipulate font or pictures;" and (b) "reflowable" e-texts featuring flexible formats and dynamic media, with the user being able "to modify both the layout and interactive features ... to suit the display medium."

As Chesser (2011) described, the education sector has been forced to grapple with a range of questions/issues pertaining to e-texts ever since the latter emerged onto the scene. Some of these deal with the technological aspect of e-texts:

"...what comes to mind when someone says (e-text)? Is it simply screen-rendered replicas of those same print pages, the identical book, only without weight and, hopefully, without quite the cost? Or is it something more: interactive and filled with 3-D animations, self-tests, videos, and active equations? Is it a device – a tablet or a dedicated reader – or is it software running on a laptop and a smartphone? Is it Web-based or downloaded? Is it all of these things seamlessly working together?" (p. 28)

Meanwhile, others deal with the creation and ownership aspect of e-texts: "...who made and who owns this new thing? Must it be a product of the legacy publishing industry ... that today sponsors research, develops art, guards copyright, and scrupulously oversees licensing, peer-review, manufacture, marketing, and distribution? Or is it something new: a self-generating, self-sustaining, crowdsourced, open access wiki book, changing constantly, developed by everyone and owned by no one?" (p. 28)

E-texts are seen as a more appropriate answer to the high textbook costs faced by college students in addition to rising tuition, as compared to the alternatives of either using cheaper past editions of print textbooks or doing away with textbooks altogether (Falc, 2013). While proponents of e-texts tout several advantages accruing from the adoption of these innovative media products – such as eliminating costs associated with printing, storage, and shipping; affording functionalities such as copy-paste and keyword searches that are impossible with traditional print textbooks; providing enhanced opportunities for interactivity between learner and medium that may lead to improved learner performance; and allowing for revisions without the need for expensive reprinting – one must also be mindful of their disadvantages, such as immature/evolving technology and visual/reading fatigue (Chapman, Seeley, Wright, Glenn, & Adams, 2016).

Multiple higher education institutions including the University of Liverpool (Barker, 2015), University of Idaho, Northwest Missouri State University, and for-profit entities like the University of Phoenix have been experimenting with e-text programs (Miller, Nutting, & Baker-Eveleth, 2013). The rise of e-texts has been accompanied by the decline of traditional print media, as well-known brick-and-mortar bookstores declare bankruptcy and shut their doors after losing millions of dollars (Ditmyer, et al., 2012), and prestigious print newspapers either downsize or go out of business entirely (Miller, et al., 2013). Currently technology, cost, and political pressures are driving the trend within higher education towards the use of electronically-accessed content resources including e-texts – especially within blended/e-learning environments and also within face-to-face courses – as the recent generation of digital natives reaches college age (Ji, Michaels, & Waterman, 2014). Decisions regarding the adoption of e-texts are frequently driven by external factors – such as technological advances, changing learner preferences, increasing availability of open educational resources, the emergence of massive open online courses, and the costs associates with traditional textbooks – as opposed to pedagogical considerations (Seaton, Kortemeyer, Bergner, Rayyan, & Pritchard, 2014). Characteristics such as cost, flexibility, features, and ease of availability push students towards choosing e-texts in lieu of their print counterparts; however, student preferences may not be the best criteria upon which to make pedagogical decisions, since their goals more often revolve around efficiency as opposed to learning impact (Daniel & Woody, 2013).

#### The Study

The study forming the source of the findings presented in this article followed the model for case study research established by Robert Stake, one of the genre's most renowned experts. Stake (1995) characterizes this approach as studying the particularity and complexity of a single case, coming to understand its activity within important circumstances and its embedded-ness and interaction with its contexts. Meanwhile, by "case" Stake refers to a specific, bounded, complex, functioning, purposive, integrated system; i.e., not an abstract process but a concrete object with a boundary and working parts. In the context of this study, the case could be defined as the specific organization that was impacted by the initiative – i.e., the COE. The data collection process for the study consisted of (a) identifying informants, actors and other stakeholders relevant to the case and conducting one-on-one personal interviews with them; and (b) collecting and analyzing documentary evidence pertinent to the case. The study was duly cleared by the university's institutional review board<sup>6</sup> before any data collection took place.

Interviewed as part of this study were 14 instructors, representing the entire population of instructors who had received funding under the initiative barring those who were on sabbatical and those who no longer worked at the university; they were asked a wide-ranging set of questions regarding their experiences connected to the initiative. Also interviewed were the COE Dean – the initiative's chief driving force and funding source – and six students who had actually used the e-texts created and implemented under the initiative. Meanwhile, all the instructors interviewed for this study were asked to voluntarily submit student course evaluation reports<sup>7</sup> for the course sections they taught during the semester in which they debuted the implementation of their completed e-texts, as well as – for comparison purposes – sections of the same course they taught using other instructional materials during the most recent prior semester. The idea was to see if there were any differences between these reports that particularly stood out. Four instructors very kindly agreed to supply said reports. Furthermore, instructors who created and implemented e-texts within their respective courses as part of the initiative were required by the

<sup>&</sup>lt;sup>6</sup> Hereinafter referred to within this report as the "IRB."

<sup>&</sup>lt;sup>7</sup> The university's proprietary student course evaluation system and reports are intended to provide an indicator or student's impressions of teaching effectiveness in a given class. Said reports may also provide some clues as to students' views of specific teaching practices.

COE to submit a written evaluation report towards the end of the process, providing responses to a series of questions. Ten such reports were obtained from the Dean's office and analyzed as part of this study.

Before presenting any findings arising from this study, it would be appropriate to articulate its unavoidable limitations. While 14 instructors were interviewed as part of the study, only four were willing and/or able to provide student course evaluation reports. Including similar student course evaluation data from all 14 instructors would have added tremendously to the study; however, IRB regulations mandated that such data must be obtained voluntarily and instructors could not be compelled to provide them. Besides, it was also a limitation that only six students – end-users of the e-texts created and implemented under the initiative – could be interviewed as part of the study. Not all the instructors followed up on requests to supply names of students who could be interviewed for the study, and not all the students whose names were supplied responded to requests for an interview. Once again, IRB regulations mandated that instructors could not be compelled to supply names of students who could be interviewed, and the students themselves in turn could not be compelled to participate in the study.

In light of the aforementioned limitations, potential pathways for future inquiry with regard to the initiative could possibly involve: (a) Interviewing more students/end-users of the e-texts created and implemented under the initiative; (b) Analyzing the content of the e-texts created under the initiative; (c) Analyzing student work performed in course sections where e-texts were implemented, and comparing it with student work performed in temporally precedent course sections featuring the use of alternative content materials such as commercial textbooks, course packets, or free/paid online resources created and hosted by third parties; and/or (d) Collecting relevant quantitative data in magnitudes warranting the use of advanced descriptive and inferential statistical techniques, leading to the revelation of statistically significant findings.

### **This Report**

This report presents findings arising from the aforementioned personal interviews of the 14 instructors and the Dean, along with the ten instructor-submitted evaluation reports obtained from the Dean's office. Not included are findings stemming from the student course evaluation reports supplied by four instructors, or the personal interviews conducted with the six students, since the magnitude of these data may not be sufficient to permit meaningful interpretation.

#### **Dean's Perspective**

As part of this study, the Dean – as the initiative's chief driving force and funding source – was interviewed to ascertain their macro-level perspective re: the initiative from their apex administrative and leadership position within the COE.

**Rationale/Justification.** In explaining their rationale for establishing the initiative, the Dean emphasized the COE's responsibility – given that we are nearly two decades into the  $21^{st}$  century – to prepare teachers who are fully equipped to teach digital natives, and to level the playing field regarding technology use within its classrooms by providing students with access to a variety of DMT. Also important was to provide cost savings for students by providing them with

free, high-quality, custom-tailored resources featuring "real world" content in lieu of expensive, generic, commercial textbooks; besides, e-texts produced under the initiative could piggyback on an 1:1 iPad initiative previously launched by the COE for its pre-service teachers. The Dean also saw the initiative playing a major role in encouraging instructors to harness the power of DMT to engage/motivate students, and in helping the COE keep up with trends in open education, equitable access, collaboration and sharing.

**Macro-Level Questions.** The Dean reported wrestling with an important question, viz., if it might be a good idea to encourage consistency of design, navigation, and functionality across e-texts, or if it would impinge on instructors' academic freedom. Another related to restricting outsiders' access to the e-texts v. sharing them beyond the COE in order to capitalize on inputs/feedback from broader audiences. Staying abreast of ever-evolving copyright issues was yet another important issue, as was figuring out how the e-texts might count towards instructors' promotion and tenure. Meanwhile, might the widespread adoption of e-texts result in issues of equitable access, in case some students did not possess devices that could support/display said e-texts?

#### **Rationale/Justification**

The main reasons articulated by instructors during their personal interviews for participating in the initiative were, in decreasing order of perceived importance: (a) the opportunity to tailor content; ensuring the currency of both (b) information as well as (c) media; (d) mitigating students' costs/expenses; and (e) facilitating the latter's continued access to the materials/resources.

Instructors believed that the e-texts they specifically tailored/customized for their particular courses would more efficiently aid effective teaching and meaningful learning as compared to generic, one-size-fits-all commercial textbooks. Benefits of such customized e-texts as enumerated by instructors included the ability to provide content that: (a) relates to students' day-to-day professional practice and real-world, locally relevant situations/considerations; (b) fits students' level of understanding and current knowledge schemata; and (c) is 100 percent applicable to the course(s) they are taking.

Instructors maintained that the lengthy timeframe it takes for commercial print textbooks to go through the review and publication process – and the generally infrequent intervals at which they are updated – often render them outdated by the time they are available for implementation within the classroom. In contrast, it is possible to provide students with much more up-to-date information via e-texts – especially in fields that are changing/evolving rapidly – by revising content and linking to external resources that are current and relevant. Instructors also claimed that e-texts tremendous advantages over traditional print textbooks in their ability to harness the affordances of the myriad DMT currently available to 21<sup>st</sup>- century educators, such as: (a) permitting the incorporation of animated visuals, videos, and hyperlinking to a range of complementary/supplementary external resources; (b) affording students opportunities for meaningful interactivity; and (c) providing students with access to course content both in and out of class.

Instructors also strongly echoed the COE Dean's stand that students deserve help towards mitigating the increasingly excruciating costs associated with higher education; they believed that free e-texts played a significant role towards this end. Given that free online resources are often of questionable quality, and high-quality resources of any kind are invariably expensive, they felt providing e-texts helped cut down students' costs without compromising on quality. Instructors saw an additional benefit to the free e-texts in that they could be made available to students after they had completed the course/program, unlike obsolete editions of print textbooks or password-protected learning management system<sup>8</sup> platforms like Canvas; the e-texts can thus help students even after they have graduated and become in-service teachers, to refresh their memory and provide just-in-time professional development<sup>9</sup> and continual support.

#### **Design/Development**

Strategies. Instructors reported adopting myriad strategies towards the goal of creating e-texts that supported effective teaching and meaningful learning within their courses. These encompassed: (a) chunking – dividing the e-text into smaller, more manageable titles, based on the experiential understanding that students generally balk at reading "huge" textbooks; (b) multiple encoding – presenting content within the e-text using a variety of media formats to reinforce comprehension and to address students' multiple learning styles; (c) multiple explanations - providing students with access to multiple ways of explaining key concepts, principles and procedures, in contrast to using a single commercial print textbook, by designing the e-text to incorporate links to multiple external content sources; (d) tailoring – calibrating the e-text to provide students with content that is less technical and more accessible to education majors than mainstream commercial textbooks within the given associated field; (e) soliciting peer inputs - Reaching out to colleagues locally, at other universities, and at professional associations to obtain recommendations regarding free, high-quality online resources that could be linked from the e-text; and (f) soliciting student inputs - including collaborating with students, obtaining feedback from former students, asking current students what they needed, and surveying in-service teachers to ask what they believed beginning teachers would need most in terms of content.

**Challenges.** Instructors reported facing multiple challenges while in the process of creating the e-texts for their courses. They described entering the process without possessing the necessary skill-sets to assure optimal outcomes, such as (a) effectively using e-text authoring software programs, (b) appropriately navigating Copyright issues, (c) ensuring necessary compliance with accessibility regulations mandated by the Americans with Disabilities Act (ADA), and (d) meeting key institutional quality criteria for online instructional materials. Numerous instructors claimed they were provided with inadequate training/ PD prior to starting work on their e-texts, which they related to their aforementioned lack of skills.

Some of the loudest concerns instructors expressed centered around the perceived unavailability of sufficient and timely technical support during the process of creating their e-texts. They "did not have anybody to go to" when they got stuck; there was "nobody around to provide

<sup>&</sup>lt;sup>8</sup> Hereinafter referred to within this article as "LMS."

<sup>&</sup>lt;sup>9</sup> Hereinafter referred to within this article as "PD."

convenient, easily accessible, just-in-time support;" and whatever support was available was not easy to access: "...given the time it takes to schedule a meeting or to locate somebody and explain what I am doing, it could be faster to simply tinker around until I figure it out for myself." Besides, some instructors described the COE's technology/media services personnel as being "uncooperative," "fussy," and display inconsistencies in delivering services across different instructors. Furthermore, instructors reported difficulties in finding "content-specific" technical support – "I wish I had access to someone who understood the content so they could understand the vision of what I am trying to accomplish!" – as well as individuals with "poweruser level" skills to help with issues pertaining to e-text authoring software programs.

Finally, instructors also shared that figuring out the appropriate scope and delimitations of the content to be covered by their e-text was one of the most challenging aspects of the entire e-text creation process – determining what content ought to be included and what need not, what information was critical, how to prevent the product from ballooning into a 500-page e-monster, and so on.

**Benefits.** Instructors most strongly emphasized accruing benefits/rewards related to improved grasp and control over the content of their courses. There were indications that creating the e-texts helped instructors to master course content like never before – such as obtaining a "better overall picture" of course content; formally updating their grasp of the current literature pertaining to the course's content area; discovering "new and valuable resources" that could subsequently be used in multiple instructional contexts; zeroing in on the most critical/essential content; and understanding better "what students want, combined with what they need." Instructors reported that creating the e-text aided significantly with planning, scoping and organizing course content – planning the presentation of information in minute detail along with effectively sequencing its flow; weeding out obsolete/irrelevant content while adding newer, more current, and more pertinent resources; and organizing the course better as a result of developing a better understanding of what the course was about.

Instructors also took pains to acknowledge the profound professional and personal satisfaction they gained from the act of creating e-texts for their courses. They mentioned relishing and taking pride in the creative act of learning something new, of making something useful and meaningful – "Hey, I wrote a book!" – and of being able to serve as role-models for others, including their own children. While the instructors interviewed for this study were universally thankful for the financial incentive provided by the COE to develop their e-texts, based on their testimony such monetary rewards appeared to take a back-seat to the more intangible – but clearly more meaningful – benefits aforementioned.

#### Implementation

**Strategies.** Accessibility – both during and following completion of the course in which the e-text is implemented – was a feature that instructors interviewed for this study were keen to ensure. Most instructors made their e-texts available in PDF format – in addition to iBook or EPUB formats – in order to guarantee accessibility across platforms and devices. Some also made their e-texts accessible free of cost via the iBook store, because that way every time they

updated the e-text file, whoever downloaded the original version would automatically get notified about the update.

Meanwhile, several instructors reported using the implementation of their respective e-texts within their courses as an opportunity to solicit student input/feedback towards the aim of improving subsequent versions of the e-texts. Strategies to enable this included (a) creating Google Doc files where students could make contributions, (b) piloting draft versions and incorporating student feedback into the final products, (c) giving students assignment to find potential resources to link to the e-text, and so on.

**Challenges.** In general, instructors did not report facing too many significant challenges while implementing/integrating their new e-texts within their courses. Some instructors reported facing minor technical issues during the implementation phase, such as slow download speeds and the ever-present threat of link rot when it came to hyperlinked external resources. Nevertheless, some instructors described facing issues with student engagement during the implementation phase – issues such as students (a) finding it challenging to move from linear print textbooks to hypermedia texts featuring more complex navigation and multiple sources/voices; and (b) being reluctant to click through and view/read all of required external resources that were linked to the e-texts. Instructors reported that these issues occurred primarily among undergraduate students.

#### Benefits. Instructors reported accruing several key benefits/rewards from

implementing/integrating their new e-texts within their courses. They described how implementing the e-texts into their courses greatly improved access to course content for their students and themselves both within and outside of the classroom. This was particularly apparent in courses aimed at pre-service teachers – who, as the Dean mentioned, had all been provided with individual iPads as part of the COE's 1:1 student iPad initiative – since the latter carried those iPads, and hence the e-texts downloaded onto them, everywhere they went. Instructors described how providing online access to course content via e-texts: (a) made for livelier discussion inside the classroom, because students were able to access and reflect on the content before coming to class; (b) effectively served as a "pre-teaching" of what was subsequently taught in the classroom; (c) allowed them to get rid of paper handouts, thus guaranteeing that when a student missed a class session they would still have access to the class materials; (d) permitted them to project course content onto the screen within the classroom to ensure that everyone was focusing on the particular points to which they needed to direct their attention; and (e) gave students the ability to conduct keyword searches to find specific information.

Furthermore, instructors explained how implementing their respective e-texts into their courses had positive effects in terms of improving classroom dynamics. They said writing an e-text improved their classroom teaching not only because they now had a stronger handle on the course content, but also because the students could now plainly see that their instructor was more comfortable with the materials. They shared that, while they invested much time putting the e-text together, it subsequently saved them a lot of time by helping with time management during class – helping things flow better during class by allowing the instructor to (a) structure the course content more effectively, (b) pinpoint key concepts/issues with better precision, and (c) be able to stand right there in front of the students with authoritative ownership over all the content related to the course.

Besides, instructors described how implementing their respective e-texts into their courses allowed for a more learner-centered focus within the classroom. Many saw the e-text as a way to "pre-teach" main concepts/principles, thus freeing up precious, face-to-face classroom time to devote to hands-on practice/application and other learner-centered activities that facilitated retention and transfer of learning. Instructors appreciated the opportunity that customized e-texts provided to adapt content materials in response to special learning needs, and to differentiate them according to the circumstances surrounding individual students; the latter were now able to focus on the media and materials related to the course without being subject to the distraction of the classroom, and go through the materials multiple times if needed in order to get all the information.

Instructors appreciated the increased flexibility and adaptability with regards to course content and learning materials that resulted from implementing their respective e-texts within their courses. As they explained during their interviews, switching from commercial print textbooks to e-texts allowed for: (a) instructors to change, revise, and update content as often as warranted; (b) immediate responses to shifts in theory and practice within the field due to the ability to easily link to external sources; (c) "real time" updates by grabbing current research and materials as soon as they became available; and (d) accommodation of changing learner needs at very short notice.

Finally, instructors also acknowledged the profound professional and personal satisfaction gained from implementing their e-texts within their courses. This related invariably to the satisfaction arising from the attainment of professional goals related to the integration of DMT into classroom teaching and learning. Instructors were also happy to help the environment and model good practice/behavior to students by using less paper in their courses. They also felt gratified by the positive responses they received when they shared their e-texts with in-service teachers as part of professional development sessions in school districts.

#### **Instructor Reports**

Instructors who created and implemented e-texts within their respective courses as part of the initiative were required to turn in an evaluation report towards the end of the process, responding to a series of closed- and open-ended questions. Ten such instructor reports were obtained from the Dean's office as part of this study. Instructors' responses to the open-ended questions served the valuable purpose of validating the interview data gathered as part of this study, as they were congruent with the testimonies provided by instructors during their interviews. Meanwhile, responses submitted by instructors to the closed-ended questions provided interesting additional data, as shown in Table 1.

Questions	Responses (n=10)		
	Yes	No	Other
Did the use of alternate learning resources meet the guidelines for fair use of copyrighted materials?	8	1	1

#### Table 1: Instructor Responses to Closed-Ended Items on Evaluation Report Template

Were colleagues from the libraries and instructional technology support involved in identifying or compiling resources?	2	8	0
Was the product accessible on students' smartphones?	8	1	1
Do you have evidence that your product produced student learning?	4	3	3
Do you plan to continue using your product?	9	1	0
Have you presented or published about your product?	2	8	0
Do you think this initiative is an important endeavor of the college?	9	0	1

**Perceptions of Student Response.** Instructors shared experiencing tremendous personal enrichment and validation from being able to provide materials that students could find useful and enjoyable, and from being able to receive positive feedback from students. They described feeling gratified when students used their e-text and subsequently came up to thank them for creating a product that "was really useful, and it saved us so much money," and when students who have graduated and are now in-service teachers say they still refer to the e-text in their daily practice.

**Appreciation of Savings.** From the instructors' testimonies it appeared that the students in the courses within which they implemented their e-texts were universally and volubly grateful to not have to pay for expensive commercial textbooks any more. Multiple instructors related that students actually applauded when informed at the beginning of semester that they would not have to pay for any textbooks.

**Positive Feedback.** Instructors also described receiving positive feedback from students taking the courses within which they implemented their respective e-texts. Instructors said students liked using the e-texts because they "gave them what they needed" and afforded access to different kinds of media – text, videos, samples and examples, educator blogs – and a rich variety of linked sources to draw information from. Instructors reported that students appreciated having all their learning materials in one spot and in such a portable format – and no longer having to spend time looking up sources at the library – since getting access to the e-texts. Instructor, and to each other, due to the fact that the new e-texts were custom-made to fit their respective courses and custom-tailored to meet their target audience's needs.

**Improved Engagement.** Besides, instructors described seeing evidence of improved student engagement in the courses within which they implemented their e-texts. They said since the e-texts were deployed students were coming into class with a much better understanding of the course content; they were sharper, more critical and participated more vigorously in classroom activities. Instructors said students told them they read everything in the e-texts because they were not "one of those usual giant, 500-page" tomes, and were not "loaded with tons of irrelevant filler material." Students apparently engaged with the e-text thoroughly enough to be able to proactively approach the instructor and say "Do you know this link isn't working?" or "Why don't you do \_\_\_\_\_\_ part of the e-text?" or "Have you read \_\_\_\_\_\_ source related to \_\_\_\_\_\_ topic covered in the e-text?" Instructors also revealed that, since implementing the e-texts, their class meetings ran more smoothly, they received fewer questions overall about course content, and they found themselves not having to repeat things over and over again.

**Improved Work.** Furthermore, instructors described seeing concrete evidence of improved student work in the courses within which they implemented their e-texts. They noticed that students were understanding the specifications related to course assignments better, and consequently performing better on said assignments. They also said students performed better on course examinations during the semester with the e-text, and overall achieved better course grades as a reflection of their improved achievement of course objectives.

#### Assertions<sup>10</sup>

**Instructors' Experience.** The instructors interviewed for this study were: (a) grateful for and appreciative of the initiative; (b) unanimous in their belief that it was important and worth supporting; (c) believed the process of creating and implementing an e-text had an extremely positive influence on the nature and quality of the information/content they were providing their students in their respective courses; (d) emphasized that the e-text helped them organize course content more effectively, custom tailor it more appropriately to their students' needs, and ensure that the information presented to students was current/up-to-date; (e) recognized and appreciated the enhanced affordances of the e-text medium – as compared to print textbooks – in terms of enabling easy and equitable access to course materials for students; and (f) found the process of creating and implementing an e-text tremendously gratifying on multiple levels.

On the other hand, instructors reported: (a) entering the process of creating e-texts possessing inadequate skill-sets to assure optimal outcomes; (b) receiving insufficient training/PD prior to starting work on their e-texts; (c) concerns regarding lack of sufficient and timely technical support throughout the process of creating and implementing their e-texts; and (d) generally not having followed up on plans to present about their e-texts at professional conferences or publish about them in academic journals.

**Researcher's Conclusion.** The interview data collected as part of this study suggest that, overall, the initiative had positively influenced the stakeholders impacted by it – a conclusion bolstered by the fact that not even one of the stakeholders interviewed for this study suggested that the COE should stop supporting the initiative. Based on stakeholders' testimonies, the actions that needed to be taken in order to enhance the initiative's effectiveness were to (a) increase instructor training/PD, (b) improve technical support, and (c) ensure product quality and instructor accountability.

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<sup>&</sup>lt;sup>10</sup> Assertions are generalizations made by case researchers on the basis of their observations and other data. They represent understandings derived from personal experience, scholarship, assertions of other researchers, etc. (Stake, 1995)

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