An Examination of the Lived Experience of Eleven Educators Who Have Implemented Open Textbooks in Their Teaching

By

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MASTER OF ARTS in LEARNING AND TECHNOLOGY

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Abstract

The purpose of this phenomenological study was to attempt to understand through interpretation and reflection, the reasoning, and the lived experiences of educators who have implemented open textbooks. The research was also attempting to understand the conception of open education held by each participant.

Despite many initiatives to provide open textbooks to colleges and universities, the implementation of these projects has not been widespread. While there is a growing body of work on open textbooks, there is a gap in the literature about educators describing their own experiences with open textbooks.

In order to explore this gap, the study was conducted using Interpretive Phenomenological Analysis (IPA) to approach the investigation holistically, with the belief that a person is both embedded and embodied within a wider world. The results of the study indicate there is diversity of opinion regarding open textbooks, that personal learning networks or communities play a large role in the adoption of open textbooks, and there remains confusion or variation in interpretation about what “openness” means.
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Chapter One: Study Background

I learned about open education early in my Master of Arts in Learning and Technology program. I was on campus during my residency at Royal Roads University (RRU) and there was a talk given by David Porter, the executive director of BCcampus. He began with Article 26 of the United Nations Universal Declaration of Human Rights, which declares that everyone has the right to education and that education shall be free, and that "technical and professional education shall be made generally available" (United Nations, 1948). My interest was piqued. I am always interested to hear about the ways that we can use technology to bring education to people for whom it may otherwise not be available.

My engagement with the open education community began on a very small level—with a few members of my student cohort in our Master’s program. We looked through resources and discussed ways that we could use them in both our teaching and learning. Even though I was only slightly connected to the topic, I knew from that first week in residence that I wanted to explore some form of open education for my thesis. I read about projects like the open textbook library at the University of Minnesota, OpenStax College, and Project Kaleidoscope. I attended the 2012 Open Education conference in Vancouver, British Columbia where I listened to Gardner Campbell of Virginia Commonwealth University (VCU), and Cable Green of Creative Commons (CC) promotes openness in education. I was, and continue to be, fascinated with the possibilities of open education.

If there was one thing that stood out to me during Porter’s presentation at RRU, it was that the framing of the presentation mirrored ideals that I hold dear: ideas encompassing democratization, human rights, justice, and fairness. On reflection, I have come to believe that
the presentation connected with me because it aligned with these concepts of social justice; I am certainly not the only person to have noticed the similar language used in the field of open education. Veletsianos and Kimmons (2012) noted that one of the assumptions around open scholarship was that the movement is rooted in these ethical pursuits, though it is difficult to tell which came first. Veletsianos and Kimmons stated that, “it is presently unclear whether these ideals are essential components of the open scholarship movement or are merely incidental to those who are pioneering the field” (p. 176).

The research I undertook in this study was to uncover the lived experiences of educators involved in the use of open textbooks. While it was a clear goal, what I found was neither simplistic nor straightforward. The word “educator” was chosen thoughtfully, and the term was broad enough to attract people who not only teach primarily students, but who were also research faculty at educational institutions. The result was rich textual description of a wide selection of educators. I selected Interpretive Phenomenological Analysis (IPA) to approach the investigation holistically with the belief that a person is both embedded and embodied within a wider world.

Open education is still a relatively new phenomenon and it holds great promise in bringing education to people who may have trouble accessing it. The repercussions of open education not being successful mean that a lot of effort and valuable resources would never be used to their full potential. Examining the experiences of those who have implemented open textbooks demonstrates the positive and negative issues that arise for some educators, and those experiences may be useful for people looking to implement open textbooks.

This thesis is structured to guide the reader through the research questions, definitions of specific terms, and a literature review. What follows in the thesis is a section on methods, where the strategy of inquiry is discussed in greater detail.
Limitations and delimitations

As Finlay (2009) noted, “we experience a thing that has already been interpreted.” The description and interpretation of open textbooks, both from my perspective and that of the participants, has already been subjected to our own experiences and biases. The nature of the phenomena means that only those who have both experiences in considering and using open textbooks, and the desire to speak about them, participated in the research interviews. Subjectivity is invariably embedded into the nature of interpretive phenomenological research. For example, I did reach out to one potential research interview participant who was no longer involved in open education and said she did not have an hour to discuss her experiences with me. As a consequence, the sample for this study was somewhat self-selecting and likely attracted only those who were very passionate about open textbooks. There was also a time constraint of only a few months to complete the study, and this constraint did not allow adequate time for follow-up interviews with participants to see whether they had shifted or revised their ideas about open textbooks over time. For analysis, I favored an ideographic, narrative element when exploring how individuals experienced open textbooks.

The sample size for this study was never intended to be large, due to its exploratory nature, and certainly not sufficiently large enough to allow generalizable findings. Although there are hundreds of people involved in the use of open textbooks, a survey would not have been able to capture the intimate details and rich descriptions of a longer interview. Finally, and in all cases, the participants spoke of their experiences as individuals, not as representatives of their institutions or organizations.
Research Question:

The Primary research question guiding this study was: What are the experiences of educators regarding the implementation of open textbooks as a part of their educational practice?

While considerable time, resources and investment efforts have gone into the creation of open educational resources, there may be a knowledge gap about the ways in which open resources are used. A secondary research question, or sub-question, was concerned with examining the potential barriers that educators and institutions faced when trying to implement open textbooks.

As will be discussed in greater detail in Chapter Three (Method and Strategy of Inquiry), this research study was conducted using Interpretive Phenomenological Analysis (IPA) for data collection and interpretation of interview data.
**Definition of Terms**

The following terms are used through this thesis. Some are specific to the use of open educational resources. Others are acronyms.

**API**  Application programming interface

**CC**  Creative Commons

**Digital Rights Management (DRM) is term that** describes a set of technologies that were created to control the use of copyrighted materials

**FWK**  Flat World Knowledge

**IPA**  Interpretive Phenomenological Analysis

**Open Educational Resources (OER)** is a term that was first adopted at UNESCO’s 2002 *Forum on the impact of Open Courseware for Post-Secondary Education in Developing Countries* funded by the William and Flora Hewlett Foundation. According to the definition OER are “digitized materials offered freely and openly for educators, students and self-learners to use and re-use for teaching, learning and research” (UNESCO, 2002).

**Open Licenses include** a set of licensing rights provided by Creative Commons (CC) Licenses (Creative Commons, 2012). CC licenses use traditional copyright to extend additional and specific rights to others in society who would benefit from making use of educational material such as books, video, animations or other resources (see 4Rs).

**Open Textbooks** are made freely available online for faculty and students to use, modify and reuse (ISKME, 2008). These textbooks are available with non-restrictive licenses and cover a wide range of disciplines (ISKME, 2008). Several file formats are often provided for open textbooks; typical formats are: HTML, Adobe PDF, and plain text (ISKME, 2008).

**PLE**  Personal learning network

**UNESCO**  The United Nations Educational, Scientific and Cultural Organization

**4Rs Framework**  Reuse, Revise, Remix Redistribute (Wiley, 2010).
Chapter Two: Literature Review

The literature review focuses on areas of interest for this research project: open education, open educational resources (OER), and open textbooks. Although the focus of this research was open textbooks, some general information about open education and open educational resources is included to better describe the context around open textbooks. OER and open textbooks are not separate phenomena.

It can be easy to lose your way in an exploration of openness in education. In 2010, Wiley parsed for us the meaning behind the adjective open and the “rolodex” of nouns: education, resources, technology, textbooks, and courseware (Wiley, 2010). In the discourse of higher education, open means that educational resources are provided using a copyright license that allows for the 4Rs:

1. Reuse – the right to reuse the content in its unaltered / verbatim form
2. Revise – the right to adapt, adjust, modify, or alter the content itself
3. Remix – the right to combine the original or revised content with other content to create something new
4. Redistribute – the right to make and share copies of the original content, your revisions, or your remixes with others (Wiley, 2010)

In 2014, Wiley suggested a fifth “R” for retain, that provided the right to make, own, and control copies of the content (Wiley, 2014). In doing so, Wiley hoped to begin a conversation around the ownership of open education, as well as the task of academic labour. Wiley (2014)
also emphasized the need for de-centralized repositories for OER that would ensure that students had a right to retain openly licensed material in perpetuity.

Many advocates promote OER as being free, but there is more to open than not costing money. With open licenses, such as the Creative Commons CC-BY license, individuals are free to “copy and redistribute the material in any medium or format; to remix, transform, and build upon the material for any purpose, even commercially” (Creative Commons, 2014). All that is required is that the user of the open resource gives appropriate credit, provide a link to the license, and indicate whether any changes have been made (Creative Commons, 2014). At the heart of the OER movement is a mission to provide access to learning materials or opportunities for those who may not otherwise be able to afford them (Downes, 2011). OER are easy to use and there is only one rule—you must share the originals and any remixes of them.

As Porter (2013) noted OER is not common practice in institutions,

“OERs are a potentially disruptive innovation in the higher education sector that may impinge upon core principles and practices of the academy that are associated with its culture and its mission to produce new knowledge” (p. 29).

Perhaps because OER has not become well established in institutions, there is very little known about the ability to re-use or remix the materials. In Porter’s investigation of practices around OER, the responses from a participant challenge the possibility alluded to in the third R, the ability to remix. While remixing is considered a pillar of open education, there is still a lack of tools that make remixing easy or accessible for most people. Collis and Strijker (2003) indicated that there “has been little success with bringing instructors close to an actual authoring process: instructors do not have the time, interest, or skills” (p. 5). Traditionally, learning development tends to happen as a package rather than a compilation of components that can be gathered from
all corners of the web. Writers like Lamb (2009) and Petrides et al. (2008) have written of the need for additional support in the pillars of OER that include providing the resource in an open format.

The birth of open educational resources

D’Antoni (2009) described the convening of a group of academics from all over the world, and primarily from developing countries, with the aim of assessing a new project by the Massachusetts Institute of Technology (MIT) called OpenCourseWare (OCW). The group, convened by UNESCO, coined the phrase “Open Educational Resources” to describe the resources created within the OCW project, and defined them as follows:

“The open provision of educational resources, enabled by information and communication technologies, for consultation, use and adaptation by a community of users for non-commercial purposes” (UNESCO, 2002).

Since the initial creation of the term OER, D’Antoni (2009) tracked the progress of the definition from a descriptor of materials to “include the tools needed to support OER, and eventually to a philosophy” (D’Antoni, 2009, p.3). Since the first definition generated at UNESCO-sponsored conference, composed primarily of academics from the developing world, many organizations from the developed world have also participated in refining the definition of OER.

The William and Flora Hewlett Foundation has defined OER as:

“Teaching, learning and research resources that reside in the public domain or have been released under an intellectual property license that permits there free use or repurposing by others. Open educational resources include full courses, course materials, modules,
EDUCATOR’S LIVED EXPERIENCES WITH OPEN TEXTBOOKS

textbooks, streaming videos, tests, software, and any other tools, materials or techniques used to support access to knowledge” (Atkins, Brown & Hammond, 2007, p. 4).

The Organization for Economic Co-operation and Development (OECD, 2007) produced a report describing OER as including “learning content, software tools to develop, use and distribute content, and implementation resources such as open licenses.” They used the term OER to refer to “accumulated digital assets that can be adjusted and which provide benefits without restricting the possibilities for others to enjoy them” (OECD, 2007, p. 10). Elsewhere, Kanwar, Kodhandaraman, & Umar (2010) noted that OER are understood as free and freely available, and sustainable for all levels of education.

In October 2008, the Higher Education Funding Council for England (HEFCE, 2008) announced that it would fund higher education institutions and JISC (formerly known as Joint Information Systems Committee), to develop open educational resources. Three phases of a joint program were funded for approximately £16 million, each with priorities reflecting the growing community of OER users and developers that the program inspired and supported.

There are a proliferation of open education and OER initiatives developing globally, but the concept of “open” varies. Those who consider openness as a synonym for modifiability argue that a move towards openness is a move towards providing free and easy access to educational resources. They state that materials that have restrictions on reuse and modification conflict with the philosophy of the open education movement (Wiley & Gurrell, 2009; Bissell, 2009; Baraniuk & Burrus, 2008). While a rigid definition of the philosophy of open would seem to run contrary to its own principles, because inflexibility is a trademark of closed, as things stand now multiple definitions of open mean that there is confusion about what makes education open—and also what types of education remain closed. At the present time, the debate around OER continues.
with the discussion around such disruptive innovations as Massive Open Online Course (MOOC) increasingly dominating the conversation around open education and OER. This may be due to the ability of companies like Coursera to capture the public imagination. Coursera made MOOCs a mainstream concept, so much so that The New York Times declared 2012 “the year of the MOOC” (Pappano, 2012).

However, it was Cormier, an educator at the University of Prince Edward Island (UPEI), who suggested the name MOOC in 2008 (Cormier, 2008). The initial MOOC was an experiment in open courseware that Siemens (2008) and Downes (2006) designed at the University of Manitoba in 2008. The experiment was designed to expand the learning experience for a class of 25 students, by opening it up to over 1,500 online participants (Bady, 2013). However, despite the attention focused on MOOCs, whether they were based in theory of connectivism (cMOOC) proposed by Siemens and Downes (Siemens 2006; Downes 2008) or the professor-centric model (xMOOC) such as Coursera style MOOCs, these courses are not the entirety of the open education movement. In fact, it is primarily cMOOCs that use OER, with xMOOCs of the Coursera style using proprietary resources.

**Open Textbooks as a solution to the rising costs of post secondary education**

Senack (2014) reported on a survey of 2039 students from more than 150 campuses in the US by the Student Public Interest Research Groups (Student PIRGs) that illustrated some disturbing trends in post-secondary education. The study found that 65% of students decided against buying a textbook for a class they were enrolled in because the textbook was too expensive, and 94% of those students felt that not having the material would hurt their grades (Senack, 2014). Here OERs, particularly open textbooks, may be a solution to addressing the
EDUCATOR’S LIVED EXPERIENCES WITH OPEN TEXTBOOKS

rising costs of textbooks and provide both financial relief and educational support to students. Allen (2008; 2010) also highlighted the ability of open practices to provide open textbooks to students who may not otherwise be able to afford them.

Some initial research findings on OER indicate that the use of open textbooks has been promising. Hilton and Laman (2012, p. 270) reported lower attrition rates and improved final examination results when open textbooks were deployed in courses they examined. However, the results were preliminary and, “because of the relatively low adoption rate of open textbooks, only a small amount of research has investigated its educational impact,” (Hilton & Laman, 2012 p. 266). There remain some challenges around adoption; Wiley, Hilton and Ellington (2012) noted that, “the tenacious grip of bureaucratic adoption hurdles” remained an issue as did the need for educators to have access to “research data to support a decision to use or reject open textbooks.”

Research on open textbooks

As discussed, the definition of open, the meanings of the terms open education, and OER still vary. The same issues arise when discussing open textbooks. BCcampus (2014) defines open textbooks as, “a textbook licensed under an open copyright license, and made available online to be freely used by students, teachers and members of the public.” The definition is very close to the one offered by ISKME in 2008—the major difference being that ISKME highlighted that the open textbooks are from a wide range of disciplines.

An open textbook differs from an e-textbook because it is openly licensed. However, there is sometimes conflation between the idea of an e-textbook, eBook, and that of an open textbook. At a recent event to promote open textbooks, a university presenter wrote, “e-books, as
they are better known, are open-source textbooks that have been written by professors and published using an open license” (Kareiva, 2009). This is of course, not true. Given the multiple definitions of open I addressed in the literature review however, I believe it is a common misunderstanding of the terms open-source or open textbook.

From my analysis of the review of the literature, I assembled Table 1 as a summary to outline key differences between open textbooks and e-textbooks.

Table 1: Differences Between Open Textbooks and E-Textbooks

<table>
<thead>
<tr>
<th>Qualities</th>
<th>Open Textbook</th>
<th>E-Textbook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordability</td>
<td>• All are free to view online.</td>
<td>• Study of four textbook distribution models show some savings, but in some cases the difference is one dollar between print and digital. (Graydon &amp; Urbach-Buholz, 2011)</td>
</tr>
<tr>
<td></td>
<td>• Some, such as Boundless Textbooks, are viewed with ads to subsidize costs (Lalonde, 2013).</td>
<td></td>
</tr>
<tr>
<td>Print</td>
<td>• Print on demand available for many publications providing a printed and bound copy for students at a low price (BCCampus 2013, Wiley &amp; Hilton, 2012)</td>
<td>• Digital rights management and EPUB format make printing difficult or place restrictions on printing. (Graydon &amp; Urbach-Buholz, 2011)</td>
</tr>
<tr>
<td>Accessibility</td>
<td>• Available online or digitally</td>
<td>• Available online</td>
</tr>
<tr>
<td></td>
<td>• Open textbooks can use open source software that allows the material to be</td>
<td>• Digital Rights Management (DRM) often do not allow for printing or modification</td>
</tr>
</tbody>
</table>
distributed in a variety of ways (Lalonde, 2014)
Open textbooks can be device neutral unlike books from a publisher that may use proprietary software (Allen, 2010)
- May be accessible for a limited period of time (Wiley, 2014)
- A loan agreement may be in place (Graydon & Urbach-Buholz, 2011)
- Locked formats prevent adaptability and reusability
- All material already compiled and edited

Much of the literature on open textbooks focuses on the cost of textbooks and the ways in which mitigating these costs may assist students (Baker, Thierstein, Fletcher, Kaur & Emmons 2009; Allen 2010; Hilton & Wiley 2011; Hilton, Wiley, Bliss 2012; Senack 2014).

The price of textbooks is a quantifiable issue. College textbook prices have increased by 82% in the past ten years (Allen, 2010) in addition to the cost of post-secondary rising 87% in the last two decades (Allen, 2010). As the costs of textbooks rise with no apex in sight, fewer students purchase the textbooks (Wiley & Gurrell, 2009), and demands for alternatives such as open textbooks are high (Frydenberg, Matkin & Center 2007, Matkin, 2009; Baker, Thierstein, Fletcher, Kaur & Emmons 2009; Hilton, Levi & Wiley, 2011).

Open textbooks are also gaining prominence through the introduction of policy and government initiatives to develop OER. The United States Department of Labor announced grants that could be used to fund open-textbook projects (Gonzalez, 2011). On September 30, 2012, Governor Jerry Brown of California signed into law a proposal that allowed students to download digital copies of textbooks for free (Garber, 2012). Most recently the provinces of
Alberta, British Columbia, and Saskatchewan (2014, March 13) produced a Memorandum of Understanding (MoU) to develop and share OER.

A study by Wiley, Hilton, Ellington, and Hall (2012) took place over two years with 20 middle and high school science teachers who adopted open textbooks. Collectively, they taught approximately 3,900 students. The study sought to compare the cost of the implementation of open textbooks in comparison to traditional textbooks. Researchers found that with both traditional and open texts, there was a significant effort put into “locating, vetting, and selecting” a text (Wiley, Hilton, Ellington, and Hall, 2012). However the time teachers spent modifying the textbooks was shown to vary (see Figure 1).

<table>
<thead>
<tr>
<th>Teacher identifier</th>
<th>% of book modified (self-report)</th>
<th>Hours spent modifying (self-report)</th>
<th>Estimated modification cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher A</td>
<td>10%</td>
<td>20</td>
<td>$600.00</td>
</tr>
<tr>
<td>Teacher B</td>
<td>50%</td>
<td>4</td>
<td>$120.00</td>
</tr>
<tr>
<td>Teacher C</td>
<td>40%</td>
<td>24</td>
<td>$720.00</td>
</tr>
<tr>
<td>Teacher D</td>
<td>1%</td>
<td>6</td>
<td>$180.00</td>
</tr>
<tr>
<td>Teacher E</td>
<td>0%</td>
<td>0</td>
<td>$0.00</td>
</tr>
<tr>
<td>Teacher F</td>
<td>75%</td>
<td>60</td>
<td>$1,800.00</td>
</tr>
<tr>
<td>Teacher G</td>
<td>17%</td>
<td>10</td>
<td>$300.00</td>
</tr>
</tbody>
</table>

*Figure 1. Summary of Teacher Efforts to Modify Open Textbooks (Wiley, Ellington, & Hall 2010)*
Figure 1 shows the relationship between modifying the book and the estimated cost. In some cases, drastic changes could be made—such as removing a chapter—without the participant spending a lot of time modifying the material. This suggests that the modification of a resource and cost is not a direct correlation. Overall, Wiley, Hilton, Ellington, & Hall (2012) stated that the majority of students and faculty reported a positive experience using open textbooks, and they appreciated the lower costs, and perceived the texts as being of high quality.

A report for the Student PIRGs by Allen (2010) identified different methods to save students money on textbooks. Out of all of the options examined by Allen: renting, e-textbooks, and e-reader textbooks combined, equaled a 34% savings (down to $598 per student) in a year (Allen, 2010, pp 5). Open textbooks, however could reduce the amount spent by 80% (down to $184 per student) in a year (Allen, 2010).

Flexibility of use on devices and a range of affordable options, including low cost printing, were the reason for the overwhelming savings potential for open textbooks (Allen, 2010). However, Allen also reported that the success of open textbooks depended entirely on the ability to develop sustainable publishing models.

Allen (2010) cited the development and progress of the Flat World Knowledge Society (FWKS) as a model for open textbooks. At the time, the company was attempting to use open license and open publishing as a part of its business model. FWKS was a company founded by two veterans of the publishing industry Shelstad and Frank (Seidel, 2009). Since the publication of the Student PIRGs report in 2010, FWKS has ceased to be free and has instead switched to a low-cost publishing model (Joyner, Feb. 2013). In discussing this shift, Joyner sought out a quote from experts in the open community, including Vuchic who said:
The key in open-source software is galvanizing a whole community to bear the cost of developing a product. But Flat World used a traditional approach to authorship, and it locked its content into its platform. I think in the short term, Flat World will get a bump in revenue. But my concern is that in the long term, it will be just another publisher. Every publisher is developing a platform to modify books now. And over the long term, the cost of books will drop, so that distinction will fade, too. (Vuchic 2013)

Allen (2010) also found that consideration of the needs of both faculty and students were necessary for the adoption of open textbooks. Faculty were important because they ultimately selected the text that would be used in their courses, while students could be advocates and could inform educators of the existence and apparent quality of open textbooks.

Petrides et al. (2011) explored the adoption of open textbooks through the Community College Open Textbook Project (CCOTP) and found that cost, content, quality, and ease of use were all factors that influenced the adoption of open textbooks for educators; however, for students the primary concerns were portability and cost (p. 43). Hilton & Laman (2012) also examined the adoption of an open textbook at Houston Community College, a large post-secondary institution with more than 70,000 students. In their study, Hilton & Laman (2012) found empirical evidence that open textbooks improved student learning, as demonstrated by both final examination scores, and grade point averages.

Some of the barriers to OER adoption cited in the literature include a lack of access to hardware, software and the Internet—especially in developing countries (Wiley & Gurrelle, 2009). Other problems concerned a lack of understanding about OER by institutions and educators, and these factors stemmed from an absence of guidelines about OER creation, lack of
technical skills by educators, and a lack of transparency around educational practices (Atkins et al, 2007).

The Community College Consortium for Open Educational Resources (CCCOER) conducted a survey of 1,203 faculties from 12 community college districts and 28 colleges across the United States about their attitudes and practices with regard to open educational resources. The findings indicated a large gap between those who expressed interest for using OER in their classes, 91%, and those who have actively been using OER, 34% (Baker et al., 2008).

Baker et al. (2008) explained that the reasons for the implementation gap in the study were twofold: there was difficulty in finding high-quality OER, and difficulty in finding material that targeted community college level material.
Open textbook projects

Worldwide, there are many examples of open textbook development, and development of textbooks using open practices such as CC licensing. Saylor.org is a nonprofit company in Washington D.C that developed educational materials so that they would be open to the public because the founder, Saylor, believed that education should be free (Saylor, n.d). Flat World Knowledge is a commercial textbook company that used Creative Commons (CC By-NC-SA) licensing for their materials in its initial business model. OpenStax College (Rice University, 2013) has shown the potential of open textbooks and other OER in science, technology, engineering and mathematics education (STEM).

While there are a number of studies centered on saving students money, or other benefits of implementing open textbooks, there remains a research and information gap in exploring educators’ lived experiences in adopting open textbooks. That is not to say that no one has noted the concerns that educators have identified about open textbooks including, “a lack of ancillary materials such as test banks, homework assignment managers, and study guides that are often available from commercial textbook publishers” (Daly, 2011). Additionally, since Daly’s findings there has been greater awareness of existing initiatives, such as Learning Pod that have been developed to gather ancillary material and reusable learning objects (Mogharreban & Guggenheim 2008). In fact, Pitt (2014) of the OER Research Hub and OpenStax College, in her preliminary research results found that the top three challenges for instructors were: difficulty in finding sufficiently high-quality products, knowing where to find OER, and not having enough time to look for suitable resources. And, there was also a gap in the existence of rich textual descriptions about these issues.
Publishing and open textbooks

At times, it may seem that educators and developers may not know or have forgotten that the use digital educational resources are not uncharted territory. Many students and teachers have already shifted their own practice online from print and are active consumers of digital information sources. It is a new channel for education.

To illustrate the need for additional focus in the provision of digital educational resources, O’Leary (2012) provoked publishers and educational material developers with the statement, “open up your API, I contend, or someone else will”. We already exist in a world where people hack systems, remix content and redistribute context—often without permissions. With open textbooks, the barriers of digital rights management (DRM) are removed. We find educators concerned with whether students prefer print or digital while seeming to forget the question is not important as long as we can provide both.

Companies like Amazon have moved to a “lean consumption” (Womack & Jones, 2005) model by “streamlining their systems for providing goods and services, and by making it easier for customers to buy and use those products and services, a growing number of companies are actually lowering costs while saving everyone time” (Womack & Jones, 2005).

As McGuire noted (2012), it is not that quality of freely available materials is what is preventing people from reading online; it is that it has taken a while to find devices that readers like to use to access books. Now with Kindles and Kobo’s, iPhones and Androids, all with digital ink and backlighting that spare our computer-strained eyes, we can consume media is a way that is comfortable and convenient.
At the same time with open textbooks educators do not have to fight many of the barriers that have prevented people from reading online, such as publishers locking down their content with digital-rights management which limits interactivity with the text.

This means that a lot of the things we take for granted on most websites are just not possible with books. Copy/paste, sharing passages, and generally moving files from one place to another is much harder with e-books than with other digital goods, because of a combination of constraints in the EPUB format, digital rights management, and device/platform lock-in” (McGuire, 2012).

Educators do not need to lock down materials when they use those that are openly licensed. Therefore, many of the barriers that have presented themselves to publishers trying to move their content online do not exist in open education.

Open textbooks are not a spoke on a wheel of OER, though that metaphor is very tempting, it is more accurate to say that open textbooks and OER operate as an ecology, a community of knowledge. They are part of a holistic concept, not an individual feature. With educator’s skills and technological information sharing advances both making progress, there are increasingly more resources available. As online publishing matures and the trust for OER grows the remaining barriers to OER, such as the need for tools to assist in remixing and sharing resources, are coming to light.
Strategy of inquiry

In order to understand the role that open textbooks play within the open education movement—and also within institutions of learning—it is crucial to understand how open textbooks are used and understood by educators. Much of the research currently in existence that focuses on open textbooks examines them as an artifact; they explore the quality of the textbook or the benefits to post-secondary institutions or student savings. Viewing open textbooks as artifacts may only provide a shallow perspective of the motivation and rationale for using open textbooks. However, in speaking directly with educators about their experiences with open textbooks and motivations for using them we can begin to understand the role that open textbooks play in an educator’s pedagogy. Implementation and adoption of textbooks are actions that are viewable externally in the way that a behavioral scientist would approach them, but there is also information available on a deeper level.

The primary research question for this thesis was an inquiry into current experiences around the implementation and adoption of open textbooks. A phenomenological approach was meant to focus on the lived experiences of educators and the context in which their adoption of an open textbook took place. The goal of the research was not intended to be generalizable to all educators and institutions, but to gain understanding about open textbook use through the rich detail described by interview participants. A lack of generalizability to all circumstances may not need to be a concern in an exploratory study such as this if it can provide the research community with avenues for further detailed enquiry and better understanding of educational phenomena.
As Flyvbjerg (2006) mentioned, there is often an inability in qualitative research to be able to offer generalizability about a whole of a group of people engaged in a particular phenomenon. He writes:

A purely descriptive, phenomenological case study without any attempt to generalize can certainly be of value in this process and has often helped cut a path toward scientific innovation. (Flyvbjerg 2006)

Qualitative research, in a wide context means, "any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification" (Strauss and Corbin, 1990, p. 17). Qualitative research reports are descriptive; this methodology incorporates explicative language and the "presence of voice in the text" (Eisner, 1991, p. 36).

Through qualitative research we can explore a wide array of dimensions of the social world, including the texture and weave of everyday life, the understandings, experiences and imaginings of our research participants, the ways that social processes, institutions, discourses or relationships work, and the significance of the meanings that they generate. (Mason, 2002, p.1)

As researcher, I came to this study as an outsider to teaching in post-secondary education. I was, however, involved with open education through my Master’s degree, in studying learning and technology, and have an intimate connection with this project. As Palys and Atchison (2008) noted, prior knowledge of the phenomenon under investigation is seen as an advantage by qualitative researchers, while quantitative researchers prefer that the researcher maintain distance from the phenomenon under investigation.

Qualitative research is rich with detail and insights into participants' experiences within the world (Mason, 2002), and "may be epistemologically in harmony with the reader's
experience" (Stake, 2010, p. 5) and thereby more meaningful to the intended audience. Qualitative research uses the natural or organic setting as the source of data. The researcher attempts to observe, describe and interpret settings as they are, maintaining what Patton (1990) calls an "empathic neutrality" (p. 55).

Phenomenological theory is influenced by grounded theory. They both “continually question gaps in the data—omissions and inconsistencies” (Moustakas, 1994 p.5) and grounded theorists and interpretive phenomenological researchers alike recognize the importance of social structure and context (Moustakas, 1994 pp. 5-6.).

The data collected in this study is phenomenographic, and as Smith (2011) advocated, I attempted to remain open-minded during the data collection process and let the participant’s experiences emerge on their own terms.

In order to understand the role that open textbooks play within the open education movement—and also within institutions of learning—it is crucial to understand how open textbooks are used and understood by educators. Much of the research currently in existence that focuses on open textbooks examines them as an artifact; they explore the quality of the textbook or the benefits to post-secondary institutions or student savings. Viewing open textbooks as artifacts may only provide a shallow view of the motivation and rationale for using open textbooks. However, in speaking directly with educators about their experiences with open textbooks and motivations for using them we can begin to understand the role that open textbooks play in an educator’s pedagogy. Implementation and adoption of textbooks are actions that are viewable externally in the way that a behavioral scientist would approach them, but there is also information available on a deeper level.
It is important to note that there are variations on phenomenological strategies of inquiry, but the shared premise is on understanding the lived experiences of people involved in a phenomenon. The debate about what phenomenology includes can be intimidating for novice researchers (Finlay, 2009, p. 7); however, any phenomenological method is sound if it links properly with a phenomenological theory (Finlay, 2009, p. 8). There are two divides in phenomenological approaches. The first major division is in regards to subjectivity in the researcher. Husserl (1970) believed that transcendental phenomenology required bracketing our belief in the real world. He posited that a researcher must reduce their exposure, a method that required the researcher to set aside their knowledge. In the case of open textbooks, it would have been disingenuous as a researcher to say I could approach the topic with objectivity. Smith’s (2009) IPA provided an organic solution that fit with this research on open textbooks regarding the second major division within phenomenology—whether or not the researcher interprets the data, called hermeneutic phenomenology, or leaves the experiential accounts of the participants as strictly descriptive accounts, known as the Husserlian method (Finlay, 2009).

Hermeneutics is the theory of interpretation (Smith, 2011). IPA employs a double hermeneutic approach that acknowledges that the researcher has a dual role in the research in that they are trying to make sense of the participant trying to make sense of the phenomenon. The role of hermeneutics in this study is further explained in the data analysis section. The close proximity of me to the data made IPA the obvious choice for analysis.

Data collection

The interviews for this study were semi-structured and the topics of the interview were created by reflection on the themes that derived from the review of literature on both OER and
open textbooks. One of the central premises of phenomenological research is to arrive at an understanding through the careful analysis of individual’s experiences (Finlay, 2009). The questions were pre-prepared and departed from as necessary, while keeping in mind that the “participant is the experiential expert on the topic at hand” (Smith, Flowers, & Larkin p. 58).

The level of detail in the project evolves as the data is collected, “code notes, memos, and diagrams will become progressively more detailed and sophisticated as the analysis moves through the three types of coding” (Punch, p.112).

In keeping with IPA, the data was collected using audio or video interviews, depending on the participant’s preference, with the focus on participant’s experiences with open textbooks. Interviews are considered the normal method of data collection in phenomenological research (Moustakas, 1994, p. 114), and in general, are the favorite methodological tool (Denzin & Lincoln, 1994, p. 353) for gathering data for qualitative researchers. Qualitative research can be enhanced by video by providing “unprecedented opportunities for social science research” (Heath, Hindmarsh & Luff, 2010, p. 2). Video allows for the researcher to later re-examine the participants’ responses in the context in which they were presented. Heath, Hindmarsh & Luff (2012) noted that in their experience, they had not found additional concern from participants with video recording so long as the participants had been properly informed.

The interviews took place from January 9, 2014 to February 12, 2014. The interviews ranged from 33:65 to 66:58 minutes in length. The participants received the transcript of their interview and were encouraged to view the video or listen to the recording, and at that time they were also encouraged to provide any additional thoughts that may have arisen about open textbooks. Three participants responded with minor alterations or additional material for the transcripts.
The participants

All participants were assured anonymity as part of this research, and a pseudonym was assigned to each participant. In addition, all personally identifiable information such as institutional affiliation was removed.

Participants for this research were selected using purposive sampling, a type of non-probability sampling. Since the intended purpose of this research was to examine the experiences of a group of people engaged in a specific set of experiences, working with open textbooks or open educational resources, participants were selected using non-probability sampling as they hold important information needed for this research (Maxwell, 2009, p. 221; Morse, 1991). In a phenomenological study, there are two main criteria for a participant: to have experienced the phenomenon, and to be willing to talk about that experience to an interviewer (Thomas & Pollio, 2002). Participant selection was based on the study’s need to ensure authentic, useful and rich data that represented the phenomenon. In this instance, all eleven participants did have experience with the phenomena of open textbooks. The range of exposure varied from implementing open textbooks to exposure from conferences or from other participants in the open education community.

Interview participants were recruited through a series of blog posts on the BCcampus website, which are cited in Appendix A, and through Twitter using the hashtag #opentextbook and with the assistance of the researcher’s online personal learning network (PLE). The tweets are also included in Appendix A. Due to some difficult in gathering participants, a variety of methods were needed in order to gather enough participants for the study.
The participants were instructed to contact the researcher through email and then given information about the study and an informed consent form to review (Appendix B). They were also reminded that they could opt out of the study at any time. If interested, participants were asked to sign and return the consent forms. 17 people expressed interest and thirteen people provided consent forms, but ultimately eleven interviews were conducted. Some people who expressed interest were not able to find a time that worked for both the researcher and the interviewee.

With the participants’ permission, the interviews were recorded either on Skype or through the telephone when Skype was not possible. Out of eleven participants seven used Skype and five interviews were conducted by telephone.
Participant characteristics

Of the eleven participants interviewed, three were female and seven were male. Eight of the participants taught at a college, one at a university, one at an open education institution, and one at a non-departmental public body. While this research was not intended specifically to be international in scope, the participants came from all over the world: United States (7), Canada (2), United Kingdom (1), New Zealand (1). The participants had all elected to participate knowing that they would be asked questions from the perspective of an educator. Six of the participants were full-time instructors, three were part-time or adjunct, one was recently retired, and one participant did not currently teach but had a background in teaching music.

![Figure 2. Location of Participants by Country](image)

Data analysis

In keeping with an IPA process, the data was analyzed using a double hermeneutic approach. This analysis considered that the researcher played a double role in the examination that she was conducting (Smith et al. 2009). While, “the participants were trying to make sense of their world; the researcher was trying to make sense of the participants trying to make sense of
their world” (Smith et al, 2009). As discussed as a part of the strategy of inquiry, hermeneutics was the theory of interpretation that A double hermeneutic approach in IPA allowed for both “empathic hermeneutics” and “questioning hermeneutics” (Smith & Osborn, 2003). This means that the researcher was able to attempt an understanding of the point of view of the participant while also interpreting their answers critically.

![Figure 3. Process of Data Analysis, IPA](image)

Using IPA as praxis, the researcher recorded the video interviews, transcribed them using Transcriva (software that allowed for video and audio transcription), and re-watched or listened to the videos or audio recordings.
During the interview and throughout the review process the researcher took detailed notes of observations that arose. Following Groenewald’s (2004) approach to field notes, four types of notes were made:

- Observational
- Theoretical
- Methodological
- Analytical

As Morgan (1997) stated, field notes require interpretation and are therefore a part of the analysis phase as well as the collection phase. After the researcher had typed them up, the transcripts were imported into a qualitative data analysis software program called Dedoose, which was the primary tool for analyzing data.

The procedures of phenomenological inquiry

Creswell (1998) proposed the following guidelines to ensure that the inquiry being used was phenomenological:

1. The researcher must understand the philosophical perspectives behind the approach, especially the concept of studying how people experience a phenomenon.
2. The researcher writes research questions that explore the meaning of that experience for individuals and asks individuals to describe their everyday lived experience.
3. The researcher collects data from individuals who have experienced the phenomenon under inspection. Normally, this information is collected through long interviews.
4. The phenomenological data analysis: the protocols are divided into statements or horizontalization, the units are transformed into clusters of meaning, tie the transformation together to make a general description of the experience, including textural description, what is experienced and structural description.
5. The phenomenological report ends with the reader underlying better the essential, invariant structure of the experience.

The data collected was not intended to test hypotheses, but to make sense of the contextual understandings of phenomena.

**Data reduction**

*Figure 4. Code Occurrences before Reduction*

The world cloud in Figure 4 depicts the frequency of occurrence of text code using the magnitude of the text. Larger words denote higher frequencies.

Once collected and coded, the transcript data was voluminous with 470 identified excerpts, 19 codes, and 10 sub-codes. To reduce the data I read and re-read the transcripts, and regrouped the material. Some of the data was coded in order to more easily retrieve information such as teaching experience and a mention of the 4Rs—these were a-priori codes based on the literature review. After the reduction of the data and the thematic grouping of codes, Figure 5 demonstrates a more specific theme that emerged from the data than was visible in Figure 4. The
quality, selection, and implementation of open textbooks are regularly mentioned by all
participants of the study.

![Figure 5. Codes after Reduction](image)

**Validity**

A phenomenological approach rejects the idea of scientific realism, and so validity in this
study was obtained through repeated re-examination of the material. IPA does not achieve
validity by bracketing. Instead, Smith (2009) presented a table of criteria for a good IPA paper
and those are the standards I have applied:

- Clearly subscribes to the theoretical principles of IPA: it is phenomenological,
  hermeneutic and idiographic
- Sufficiently transparent so reader can see what was done
- Coherent, plausible and interesting analysis
- Sufficient sampling from corpus to show density of evidence for each theme

Additionally, care has been taken to present excerpts of the data that give an “indication
of convergence and divergence, representativeness and variability” (Smith, 2009).
Chapter Four: Results

The Primary research question guiding this study asked about the experiences of educators in implementing open textbooks as a part of their educational practice. A secondary research question, or sub-question, was concerned with examining the potential barriers that educators and institutions faced when trying to implement open textbooks.

Moustakas (1994) described a modified view of the Stevick-Colaizzi-Keen method that I chose to employ in analyzing the data; however, I was required to modify the process to keep with Smith’s (2004) IPA method that did not advocate the use of bracketing, or epoche. Therefore, beginning the analysis with my own experience was not intended to bracket off my experience, but instead to understand my own lived experience. Even the act of being aware that something exists creates an interpretation of the phenomena. Instead of bracketing, some phenomenological researchers advocate that rather than set aside their experiences, they should be brought to the foreground and made explicit (Finlay, 2009).

My own experiences with open textbooks are somewhat limited as a researcher. I first became aware of the existence of open textbooks at the same time as the existence of other open educational resources—the presentation by Porter to my RRU class, which was mentioned in the introduction. My next exposure to open was through the 2012 Open Education conference in Vancouver. The session I remembered was called, “Open Academics Textbook Catalogue” by Allen and Ernst. They addressed two questions that were barriers to open adoption: where to find open textbooks and how to know that the textbooks are sufficiently high quality (Allen & Ernst, 2012). During the conference break, I spoke with a member of my Masters program cohort about open textbooks. She teaches in the medical field and was really excited about the possibility of
using open textbooks for her students since the textbooks they for the Anatomy course used were usually over $250.

Once I had heard about open textbooks, they seemed like something that was relatively easy to implement in an educational program. I also brought the idea back to my work at The Safety Codes Council of Alberta where I am the Training Development Coordinator. The nature of the vocational and compliance training of safety codes officers means that there is very little that is published under an open license. While I was able to integrate graphics and videos that were available under a CC-BY license, I was not able to find much for open textbooks.
Table 2: Themes in Literature and Emergent Themes in Interview Process

<table>
<thead>
<tr>
<th>Themes found in the OER/open textbooks literature</th>
<th>Interview questions</th>
<th>Themes emerging from interview process</th>
</tr>
</thead>
<tbody>
<tr>
<td>OER theory and concepts</td>
<td>Where did you first hear about open textbooks?</td>
<td>People became interested in open textbooks through a variety of paths</td>
</tr>
<tr>
<td>OER training and/or professional development</td>
<td>Have you ever attended a workshop on open textbooks?</td>
<td>Self-directed, self-taught, free-range learning</td>
</tr>
<tr>
<td>Culture of openness</td>
<td>What motivated you to use open textbooks?</td>
<td>Academic culture, alleviating hardships on students</td>
</tr>
<tr>
<td>Personal philosophy as an instructor or teacher</td>
<td>How does your teaching philosophy intersect with using open textbooks?</td>
<td>The open community and the role in open education the educator sees for himself or herself.</td>
</tr>
<tr>
<td>Practices in open textbooks: Licenses, rules</td>
<td>Did you revise or remix the open textbook you decided to implement?</td>
<td>Branding, copyright</td>
</tr>
<tr>
<td>Community and support in open education</td>
<td>When you were looking through open textbooks deciding which ones to use, what was the deciding factor for you?</td>
<td>The open community and the role in open education the educator sees for himself or herself.</td>
</tr>
<tr>
<td>Depth of knowledge in OER (what it is, how to use it)</td>
<td>How would you describe your experience in implementing open textbooks?</td>
<td>Copyright knowledge</td>
</tr>
<tr>
<td>Selection and interest in open education</td>
<td>What do you think of the quality of open textbooks?</td>
<td>Quality, selection, and implementation of open textbooks</td>
</tr>
<tr>
<td>Barriers to adoption and support for OER/open textbooks</td>
<td>What sort of support is needed to make open textbooks sustainable to you for teaching and learning?</td>
<td>Quality, selection, and implementation of open textbooks</td>
</tr>
</tbody>
</table>
Emergent themes from the review of the data:

- People became interested in open textbooks through a variety of paths
- OER and other online learning practices
- The open community and the role in open education that the educator sees for themselves
- Concern for students
- Academic culture: support and barriers for implementing open textbooks
- Copyright knowledge
- Quality, selection and implementation of open textbooks

In the analysis, I opted for passages of greater length in order to allow the context to emerge rather than focusing solely on categorizing the analysis. The table in Appendix D shows the frequency analysis and co-occurrence of codes, while Figure 6 demonstrates the frequency that each participant mentioned a theme that was grouped into a code.
People became interested in open textbooks through a variety of paths

In order to understand the lived experience each of the participants had with open education, I needed to uncover their introduction to the concept of open textbooks. When asked, each participant had a varied path to introduction, and they did not always mention open textbooks specifically—many were introduced to open educational resources, open education, or copyright licensing first.

Responses from the participants are coded for anonymity in the transcript excerpts that appear as label at the end of each excerpt in the discussion that follows.
The majority of participants had learned about open education from a workshop or a conference—or some other kind of facet-to-face contact. Most often, engaging speakers such as Cable Green, David Wiley, Quill West and Gardner Campbell came up. One notable exception from this was participant M2, who possessed knowledge of the concept of open that stretched back to the beginnings of the open-source community and open licensing that predated some contemporary ideas of openness.

Participant M2 said,

Well very early in my career, the whole distance education model is based on a philosophy of open learning and openness it's really founded on widening access to learning opportunities and then since this predates the developments in Creative Commons licensing and other forms of open licensing which were really… I mean the first open licenses were about the early 1980s which would have been the GNU documentation license. (M2)

Others participants had briefly heard of open textbooks but had not looked into them until something pushed them to do so. Participant M1 said,

I'm a part of the articulation committee for Psychology, so I know that came across our listerv so that maybe be when I first learned about it. Again that was only after David's [Wiley] talk that I seriously started thinking about it and committed to it. (M1)

Participant F1 had a positive and innovative experience with implementing open textbooks, and a part of that was the supportive academic culture in which she worked. She taught at a small college in western Nebraska and her introduction to open education was through Project Kaleidoscope (Project Kaleidoscope, 2014).

So Kaleidoscope when I was a full-time director of transitional studies and my administrator said. ‘hey there’s this grant project what do you think?’ And at the time I had just put a proposal into my administrators. I think it was about putting …this canned curriculum but it was just really, for lack of a better term, just this really gorgeous packaging. And yet, it was very expensive and my administration said, ‘you know we just can't afford this unless we increase student fees there's no way we can do this.’ (F1)
And further, F1 commented,

So, developing that awareness too, kind of was born out of what we did with the open resources project with Kaleidoscope because we were moving digitally. Those were all important lessons to learn. So I started planning in the development phase May 2011. That was when we all got together and we first met David Wiley and we met Cable Green and we met some folks from Flat World. It was a different time; it was before the pay wall that they have now. We just met some really exciting and inspiring people. (F1)

Participant F1 was an enthusiastic interview participant. She expressed pleasure in being a part of a community of people who practice open education. She noted, “We all just became these groupies for all the people we admired in the community.” (F1)

The strongest contradictory experience from participant F1 was from participant F2 who discovered open textbooks through an online search rather than a workshop.

I was just looking for online readings, but in the process of looking for readings online I found an online textbook in cross cultural psych and certainly our students have problems affording their textbooks so we started using that as a textbook and certainly I was very happy with it and it sort of evolved from there. (F2)

Here was also one of the first indications in the interviews that sometimes, when describing educational resources, it was not clear whether the material in question was openly-licensed (which allows for revision and redistribution of the materials) or whether the material was freely available online. Neither Creative Commons licensing, nor any other sort of licensing, was mentioned by F2 in regard to her original free textbook. F2 clarified that her first experience with a free resource was more of an online collection of readings. After a few years of using this resource, the Vice Chancellor of her college brought in a representative from Flat World Knowledge. F2’s experience in implementing open textbooks was driven by direction from the administrators at her institution to the faculty. F2 experienced the barriers that Baker et al. (2008)
found in their research: difficulty in finding high-quality OER, and difficulty in finding material that targeted community college level material.

There was a close connection between online learning (or e-learning) and open educational resources. F3 was at a conference on e-learning when she was introduced to Creative Commons licensing through Cable Green.

He is a very--I don't know if you've ever seen him speak, but he is incredibly engaging as a speaker. And, he has a really wonderful talk about Open Ed Resources, and I was sold. (F3)

However, not all participants discovered open textbooks by way of workshop or seminar. Some discovered them in the middle of developing resources for their college.

We had some folks that were writing with sort of worksheets and materials and some folks who were researching an open assessment system because we were trying to move away from the publisher-based assessment system. And, then, we had another group of folks that were working with open textbooks specifically. CK-12 was one of them. And, so, we started to hear things about CK-12, and OpenStax, and some of the other open textbook groups that were out there. So, it was probably I would say three years, four years ago that we, that kind of came on our radar. (F4)

Although F4 had some connection with open education leaders like David Wiley and Cable Green, she stressed that a lot of the engagement in open textbooks has been through the team of people that she works with. She said,

…I would say as far as our own department, it's just been kind of our thing that we've been putting on. (F4)
She was not the only one who mentioned a different path from a guest public speaker. In some cases, the presentations on open textbooks came from colleagues. F5 had her interest piqued by colleagues and used her curiosity to look further into open textbooks.

…someone on campus in the Economics Department gave a workshop on an open textbook that he was using. And I thought it was interesting, so I looked into it. And I joined a group called, and I forget actually what they're called, but it's a group that's looking at open textbooks. It's just kind of an email link, and there's a discussion board,
and all this sort of thing. And, so, I've just been getting more involved in the open textbook community. (F5)

The findings in this theme demonstrated the many ways in which educators heard about open education as well as what piqued their interest in order to participate themselves. Grants and workshops, meetings and conversations with colleagues created incentives and a sense of community that allowed educators the space to explore open textbooks. Many of the participants echoed Downes (2011) sentiments from the literature review, that open textbooks and other OER would make available resources to those who may otherwise find the barriers prohibitive. This theme ties into the next one discussed, because from their description about the introduction to online learning it became apparent that for many educators, the focus was on material that was freely available, not necessarily open—and not always a textbook.
OER and Other Online Learning

Often participants veered into other types of OER when discussing open textbooks. The most common types mentioned were open assessment and ancillary materials for the textbooks, such as PowerPoint slides (or open-source equivalents). Followed closely was mention of video content. Sometimes however, the participant began by talking about material that was not OER, but rather a source that was freely available online, but not necessarily under a Creative Commons license, or that allowed for any of the 4Rs.

When M6 discussed open textbooks, he began with a discussion of Flat World Knowledge but moved on to other resources like the Education Portal and Microsoft training modules that are available online but not OER. There was no clear distinction drawn between the use of an open textbook, some other type of OER, or material that was available on the Internet. He described some business and technology classes that he participated in and said that many of the print resources were already out of date as soon as they were available. He stated, “And, so, I found that I can find a lot of information out there that I can use in place of those books that are free.” (M6)

F4 distinguished between other online initiatives like the MOOC and OER, saying that recently the MOOC had overshadowed other elements of open education. The same concept appeared in a review of the literature. F4 said,

So, I do a lot of presentations about MOOCs and I make a point to say, "Look, MOOC is open, but not in the sense of OER." And people need to understand that there's a real difference between the two and what their goals are, and all of that. (F4)

In the same way, MOOCs or OER sometimes blend together in a conversation about open textbooks, causing a conflation that makes examining these phenomena as separate
components challenging. Similarly, teaching online became a focal point for some conversations. M5 in particular kept returning to the challenges he faced in his college that made online learning appealing—including geographical barriers to students getting to class. When asked about what support would be helpful in implementing open textbooks, he said:

Personally for me it is a big challenge and I am personally challenged to become an excellent online teacher. And I teach live. So I just teach live courses at a distance that I record and then I use a learning management system so the courses are paperless and try to design a process or a way of teaching that support my students. (M5)

On the other hand, M2 argued that a resource like Flat World Knowledge was never an OER at all. And stated the importance in understanding the difference between open education and resources that are freely available. M2 stated,

This is where it's in my view very important to go and actually have a look at the foundations of open source software movement because which really in many ways have informed early developments of open content. The open source software movement predates what was happening in the open content world and we make a clear distinction between free resources we use and this is a perfectly legitimate use of free in English—it's just interesting in English we don't distinguish between the noun and the verb Free can mean two things: no cost and it also refers to liberty as in freedom and so the value for us which is more important is the freedom to be able to adapt modify, reuse and even sell open educational resources. We are not in any way opposed to anybody making money out of open education or free content In fact, if we were to restrict commercial activity around open educational resources in my view that would be a contravention of the United Nations Declaration of Human Rights in that one of the fundamental rights enshrined in the United Nations Declaration of Human Rights is the right to earn a living. As an educator I don't want to restrict the rights of anybody around the world to earn a living. So this comes back to the whole Flat World initiative, so we make a very clear distinction between why we call free cultural works approved licenses, and non-free licenses. So any license which restricts the ability to make derivative works, so in other words the freedom to adapt and modify and any license which restricts the ability to earn a living in other words a non commercial restriction, in our view in non-free and not open and the FlatWord Knowledge project started by with a CC-BY NC-SA license so in our definition that was not an open project. (M2)
Also notable was the way that geographic location seemed to change the perspectives on open textbooks. Despite the international reach of OER, not all the elements that worked in Canada or the United States worked in the United Kingdom.

The textbook itself as a category is a less important part of student learning and the student experience in the UK than it is in the US or Canada. My understanding is that if you take a course in the US you have to buy the textbook for each unit of learning and it is often more than one and they can be very very expensive. In the UK the learning tends to be more focused on the lectures and the notes that the lecturers give. They may give references to the journal article we could look up in the library, but not actually very many cases where it is absolutely expected that the student will buy the textbook. (M4)

And later when asked about his first memories in hearing about open textbooks, M4 stated:

I remember thinking that it was clearly something that was meeting an identified need in the US or Canada that potentially presented unique problems in terms of sourcing materials from various places and editing them to make sure that they for a cohesive whole. I also remember thinking that this didn't seem to be a problem that actually had much of an impact in the UK and Europe so I tended not to go to those kind of open e-book sessions. (M4)

Looking at open textbooks from the perspective of a person in the United Kingdom reminded me that not all aspects of OER are going to be applicable to all people. Despite the global reach of open there are some specific needs or practices that vary by region.

This theme demonstrated that the conversation around open education has for some, not gone beyond being able to find resources that are freely available. It is probably unnecessary for all educators to become experts on open education, but it does highlight the need for support workers like librarians or non-departmental bodies that can assist in mining and retaining OER so that resources are easy to find and easy to implement.
The open community and the role in open education the educator sees for himself or herself.

It was interesting to me that out of eleven participants, few had become interested in the actual open textbook material, but rather, inspiration came by attending seminars and sessions that discussed the philosophy of open as much as it did the benefits to students. Many of the participants echoed sentiments expressed by Downes (2011) about open learning materials giving access to those who may not otherwise have access.

Educators’ own participation in creating open textbooks varied. Some participants saw themselves more as creators than users of open materials. F4 stated,

I'm more of a creator than a re-user. If I were going to look for stuff, mostly what I look for is images and things. So, I'll go to Flickr and do a Creative Commons restricted search, or I'll go to Google and do a restricted search. That's mostly what I look for is images for presentations and things like that (F4).

A few participants worked to change people’s minds in their university about the use of OER, while others did not see that as something they had the ability to do. M5 used report writing to inform others of his experiences with open textbooks. M5 said,

I circulated it potentially to try and drive a bit of interest by faculty. You're looking for the early adopters. We'll discuss it at our business cluster meeting, which is like the big department. There will be about six or seven of us at that meeting including a couple of part time instructors. So they'll definitely be informed of it. If you're going to adopt a textbook I think you'd be willing to look at these textbooks. If you are going to adopt a textbook the chances are you are going to look at half a dozen anyway. I wouldn't preclude looking at an online textbook even if I had never used one as long as there is an option to get this textbook that is at least decent or that this stuff wasn't smoke and mirrors. (M5).

F1 stressed the role of human interaction and the value that connecting individuals brings to implementing open textbooks. It appeared to be important to her that open education was a community. F1 stated,
That was so important to get that human connection between what we were doing, and that it was really a movement. That this was something that we needed to get behind and we needed to become do-ers of and proactive implementers of, not just users. We needed to do more. (F1)

She also spoke about the fears that many instructors have of technology—fears that could be getting in the way of looking to open textbooks or other OER. Because of her passion about making connections in open education, F1 actually switched her career from teaching full-time to working with an organization that helps others implement open textbooks and other OER. Well, I mean I'm a philanthropist by nature. If I were a millionaire, I'd give all my money away to people that needed it. So, [laugh] I mean I'm just sort of a person and it's in my personality to want to give, and give, and give to others. And I feel like, as an instructor, if there are ways that I can alleviate initial barriers for students to gain access, to me it's all about access. They can't learn if they don't have the materials that they need to learn. (F4)

Not all of the participants identified themselves as philanthropists or people pursuing open textbooks out of altruism, but all of them spoke of their own role within the open community with a sense of embodiment and purpose. M2 spoke of his time working in open education as solidifying his belief in the importance of openness as a concept—both as education and in his use of open software and working with other companies or organizations. M2 stated,

Well if anything I have probably hardened my view on openness having fought many battles. In progressing the open model you know, I've possibly become hardened in many respects, I mean so far you will have noticed, I will not participate in any research project that doesn't use open licenses. I refuse to serve on any editorial board that is not open licensed so from that perspective. I've mostly hardened and I think that is the result of having fought some hard political battles. You become astute in terms of which things work in open, which things don't but it's always as open as anybody who wants to learn and participate in open is welcome to join us and we help in any way we can. (M2)

Unlike the literature of open textbooks that focused on the ways in which students benefit by saving money, participant M3 felt that the value inherent in OER was way beyond saving the students money. M3 said,

Perhaps I wasn't explicit enough in saying that saving money for students for me is not the top reason for using open educational resources. If it cost them more money I would still want to use open educational resources and those who have tried to make a case for open educational resources on the basis of saving money I think are destined to fail because as you know we're not in this business for money for our own money or anybody
else's money. We're here on principle so I am doing this because I believe it's best for students and I believe it is best for society to be more open in general. (M3)

This theme made apparent that people interested in open education saw specific roles in which they are able to participate. Some saw themselves as content creators and were able develop material from scratch, while others were looking for material that already existed which they could use for their classes. The sense of community in open education seemed to pull people into roles where they could support open education by helping to make others aware that it existed and provide guidance on how open practices could be implemented. Open education was more than a way to use resources for some participants—it became an identity for them.

**Concern for Students**

It was very common for participants to identify that they were motivated to move to open textbooks in order to save students money. F5 provided an example:

The textbooks we have, they're good, but they're so expensive. And, as an instructor, I'm really conscious of the costs to my students, especially because we live in a rural area and the economics of our area is not that great. (F5).

And later, F5 stated:

But, I'm finding about half of my students pick the free online book and half of them pick the paper book. I asked them, for one of their assignments, which book they picked and why? And, invariably, the answer for why I pick a paper book was because it's easier to read on paper. (F5)

Many of the themes identified in the literature review were congruent with study participants’ statements, including the importance of saving the students money and the concerns over a preference for printed material over digital. This finding speaks to the importance of providing the students with options. As Allen (2010) noted in the Student PIRGS report, the best
materials are device-neutral and allow students to decide for themselves how they want to read a
textbook. M6 emphasized the point about choice,

    But, free versus $260 to our demographic is a big deal. I'd say about 70% of our
    population, our college population is on financial aid. And 20% of our entire population
    lives under the poverty level. So, $260 is a lot of money. (M6)

However, cost to a student enrolled in a course was not the only factor educators
considered. The ease of access to open textbooks also made them easy to review, which from
F2’s perspective was an asset for the community of learners that she teaches.

    Oh, another advantage that we found with the open books was that students could
    preview the book to see what kind of course they were looking at before the semester
    began. We hire a lot, over 100 adjunct instructors each year. They can also look at the
    book to see if this is something they are going to want to teach from. Transfer committees
    who are deciding whether to tie credit for this class or not can look at the textbook that
    was used and don't have to wonder does somebody in our department have this one their
    shelf so we can see if the level of this book is appropriate and covered the right topics.
    (F2)

With the goal of illustrating how a student perceived the use of an open textbook, M1
read to me an email he had received from a Psychology student:

    Being a mature student on a tight budget, not having to pay $120 for a textbook is a big
    deal. That's one of the many reasons I really enjoyed the free textbook on research
    methods. Having many years of school left it would be nice that more teachers and
    schools could use these kind of books to help take off some of the financial strain that
    students like me face. (Student letter quoted by M1)

M1 continued:

    So that's a very representative quote I think. I mean he's a mature student but the younger
    students certainly felt the same way. I think one of the more gratifying things was on the
    first day of class when I met with them and went over the syllabus and everyone is
    wondering--they've been to the book store and can't find the textbook there. And it's like:
    textbook is on the course website? What do you mean? No, no, it's open and it is for free
    and so on. Really? There was this wonder in their eyes it was fabulous to see. Very
    positive feedback. That quote would be quite representative. (M1)
It is worth noting that M1 seemed very delighted at this student’s response to open textbooks, and the positive affirmation that using open textbooks was the right thing to do. He spoke in terms of morality during the interview acknowledging that by doing so, he felt he had further solidified in himself the importance of using open textbooks and other OERs.

The concern for students demonstrated that many instructors were in touch with the needs of their students, especially in low-income areas. Also, the participants interviewed were sensitive to the ways that students preferred to receive the materials.

**Academic Culture: support and barriers for implementing open textbooks**

One of the themes that every participant discussed was academic culture and the role it played in adopting open textbooks. In some ways that meant not limiting the use of OER to only textbooks, and using other components of OER, or a desire for ancillary material.

Participant F1 had a very positive experience working with a team of people to provide open educational materials:

I'll never forget how I felt that day I felt that I was just vibrating with excitement about what open materials could mean for my students. And so that was really the beginning of this major shift in my whole paradigm of how I felt about education and teaching. So we spent that summer—we had this ridiculous timeline, we had 6 weeks to really learn about open educational resources, mine the resources, put courses together. We didn’t have a whole lot of help, we just hadn't learned a bunch of lessons yet. We worked with collaborators across those other institutions with Skype and phone and we put these courses together. We actually built them initially in Sakai (Wheeler, 2004) so we used open source software in our learning management system which was really painful because we all really resisted. It was just tough to go there. (F1)

Although she initially resisted the use of open material, F1 later embraced the idea. The hesitancy came because it was such a drastic shift from the way she had previously been working. Her conversion into open education was somewhat extreme as she now works on an open initiative to help others implement OER.
Three of the participants alluded to strong moral imperatives in open education and recognized a scale in interest with OER. F1 said,

I definitely see where faculty kind of fall and some of them are fringe like me, and some take a slower or more skeptical approach. That's healthy—we have to have that balance otherwise the crazy people like me jumping off the ledge and having so much fun—we've got to balance each other. (F1)

F1 felt she was very much of the fringe in terms of her work with open education. Both she and F3 were in roles where they supported others in the use of finding and implementing open textbooks. F3 stated,

[F3 describing the words of a colleague] We are knowledge. And some of them are like, "I know what OER is, but I hate it, and I'm never going to do it, never in my career." [laugh] Um, and then there's the people who are like, "Eh, I'm a little interested, but I don't have time for it." And then there's the people who are like, "I kind of am interested and I want to know more." But, um, at the other end of the scale are the total zealots. (F3)

M3 on the other hand, opted to implement an open textbook in the class he taught and then communicated the importance of open education through blogging and attending conferences. When he met resistance to the idea of implementing open textbooks, he looked at it as an opportunity to change someone’s mind. M3 said,

I think maybe inadvertently when I encounter that sort of an opinion or that sort of perspective it maybe inadvertently strengthens my own attitudes on the other end. (smiling) simple because every time I have to take the argument and make a persuasive case for open textbooks then naturally my opinions gravitate to the extreme as well. (M3)

Several participants noted a relationship between their academic culture and the ability or inability to implement open materials. Eight of the participants were from colleges, and many of them stated they had a small group to work with in order to select textbooks. Sometimes working with these groups created friction. After retiring, F2 stayed in communication with her university, and she could easily recollect what working as a group to select an open textbook was like. F2 stated,
It would have been nice to have people not fighting you every step of the way. I don't know how to overcome that, that's just university politics again and they were going to fight you and they did. If I can share a story with you I told you that I was doing a little bit of editing on this OpenStax book while I haven't told them I'm doing that because that would just be like the death knell to the whole adoption of that book and truthfully what I have seen in that book so far I wouldn't ask them to adopt it anyway. Anyway I told one of my friends who in turn passed it on to the head of the introductory text committee, and she sent out an email saying oh [F2] sent us a link to another free open book that we can take a look at. Her dean, who is our former discipline chair, as well as a bunch of other people jumped in saying WHY IS SHE STILL INVOLVED IN THIS and we shouldn't be listening to her. I wasn't even recommending anything I was just passing on the information that there is such a book and like I said I would not recommend the book unless it changes drastically from the chapter that I saw. I would not recommend the book for them. But they are under a mandate from the chancellor to include open textbooks in their review process. (F2)

Two of the participants mentioned engaging with a librarian for open textbooks, and one participant had experience as a librarian, and others mentioned instructional designers or eLearning specialists as important to OER adoption processes.

I know, I, it's hard for me to see the negative side of OER other than the time it takes to do it [laugh] and the investment the institution has to make in it. But, I'm a little biased if you can't tell. (F3)

All of the participants stressed the importance of buy-in from educators in the move to use open textbooks. No one felt as though it would work to force teachers to use open materials. Additionally, all of the people interviewed felt that they had the support of their administrators in implementing open textbooks. As M3 succinctly put it, “they seem to have drunk the Kool-Aid as well.”

Copyright knowledge

Copyright is complicated. Participants liked Creative Commons because of the ease-of-use it provides for them in determining how they are able to use or modify the content. M5 noted,
I like the way it [Creative Commons] is branded. I can look around the world and know what this license means. It means something to me just like Ford Motor company means something to me. (M5)

M5 was the most candid about his use of educational materials prior to using open textbooks or other OER.

Well you'd bury things that may be copyright on an internal portal and you hope that they never show up and do a comprehensive audit on your portal because you've copied all these magazine articles and shoved them up there and not really sure of exactly what the rules are. I don't think one teacher in a hundred knows those rules. I think most of us would play the game and beg for forgiveness rather than ask for permission. I know the rules changed recently and I attended a briefing and they sound like they are a lot better for us, but I notice that there are not too many colleagues at the briefing. (M5)

F1 expressed similar sentiments about the way Creative Commons simplified licensing but added that it has also made it easier for instructors to find OER.

Creative Commons has done so much more to make it easy to understand too. So the three levels of licensing is really great. Being able to use Google search, the advance search, the Creative Commons search is one of those huge wins for being able to mine the breadth of OER that is out there and continuing to grow. (F1)

However, while she enjoyed the simplicity of the licensing, she recognized that using OER meant a big shift in how some people find and use materials.

It was just understanding copyright, understanding Creative Commons licensing as much as I adore Creative Commons licensing it is a whole shift in how we look at materials from copyright to then. Oh so some materials I can just use and just attribute, but other materials I can use but just not in a commercial base. (F1)

M6 came to the interview after a meeting with his college’s new e-learning advisor, which he called good timing. He described what had been discussed in the meeting and how it could be helpful to his colleagues.

Uh, well, he talked about copyrights, and how to know, and how to get help if we aren't sure whether it's copyrighted or not. And, um, and he also talked about, um, well, for most of the faculty there were part-time employees. And, so, I think a lot of them maybe didn't even know it was an option, so just letting the faculty know that there were things
like that out there, um, was part of the conversation. And, then, he showed us a few of the sites, um, like Khan, and MIT Open Course, just so you could get a feel for what they look like. And, then, we talked about how you might use them. (M6)

There are many conversations to have about copyright and access. While it may seem remarkable to some that instructors are using materials without being sure that they have the permissions to, many of the educators are part-time faculty working at multiple places and using content that was provided for them. And many full-time instructors feel pressed for time to update their courses. M4 spoke about copyright in the United Kingdom and the ways in which he has communicated the rules of copyright.

It can be, I mean licensing is a conversation that if you chose to you can have the conversation with lawyers and they can make it go on forever and be really confident about. I mean it can be actually we've tended to simplify it quite a lot and it goes something like did you make the content yourself? If you didn't make the content yourself have you got the explicit permission of the person that actually made it to let you use it and if the answer of either of those questions is no than you probably shouldn't be using it. I mean there's kind of always exceptions you look at something like author works, public domain stuff and there's also the argument about the current abhorrent state of affairs in which our cultural heritage is actually copyrighted all the stuff in our head, all the references to popular culture that we make all the time we probably shouldn't actually be making because people own them. I was actually talking to Jim Groom, that these are the things that I actually grew up with the books and the music and all the rest of it and if I can't actually use that then it's something I've added value to that I can't take anything out of. (M4)

The theme of copyright seems to indicate that there is a low-level of understanding about using materials for educational purposes, and this may affect the way many people perceive or choose to use open textbooks.

Quality, selection and implementation of open textbooks

“I think one of the big barriers has been that a large number of the open textbook projects haven't actually planned for implementation,” said M2. The participants brought up similar
concerns to those identified in the literature review about the quality of open education. Most had experienced initial concern about the quality that they said were latter assuaged.

As F3 mentioned, many educators in her experience were also associating overall appearance of the open textbook with the quality of the materials. She would often send the best-looking resources to instructors.

I know that, when I'm working with faculty and I send them an OpenStax college book, because those look so pretty [laugh] and they look like a textbook you're comfortable with, it's a lot easier to convince somebody to adopt that. But, I also know that there are some super amazing, quality open resources out there that look like web pages that were made in 1996. And they're not bad resources. They're just not as easy to read. So, it's one of the things that we have to deal with, as a community of open users, is making things kind of fit what we expect a resource to look like now. (F3)

In her work as a librarian, F3 wanted to find space for people to use whatever resources fit them. F3 said,

I want everybody to be—I kind of want to live in this perfect world in education where everybody's teaching with what makes them happy. But, I will say that I get really frustrated with the comment that open resources aren't quality resources. I don't think that's true anymore. I think in the beginning it was harder. But, I think when you're translating quality to prettiness, that's not really quality. (F2)

However, the concerns about quality were not totally unfounded. F2 did experience issues with implementation that were tied to quality. F2 stated,

Obviously there are lots of problems with free books. One problem with this particular free book is that Flat World decided to change their business model and it is no longer free. Fortunately by that time we already had a downloaded revised customized copy of the book so we went ahead and we're still using it. The other problem is you've got to create a lot of your own materials and there's lots of other problems too that I could go into. But from the student perspective I think it was a success. (F2)

Participant M2 drew on his years of experience in watching open-source and open education evolve to describe the way he viewed the present approaches to open textbooks. M2 said,
It's about oh let's create an open textbook. Build it and they will come sort of notion but nobody has planned for implementation. The only project I have seen that is actually thinking this through more carefully now is the Campus Open Textbook initiative. I think they are planning carefully for implementation. The way I would run an open textbook project, as Campus is doing well, ok yeah we'll support you in developing an open textbook on condition that you are going to teach it. Simple as that. (M2)
Chapter Five: Reflection, Conclusion, and Recommendations

The purpose of this study was to gather the lived experiences of educators who had been involved with open textbooks. What became apparent from an analysis of the data were the varying ways that people became involved in open education. Commonly, there was an individual who influenced them and whose views had resonated with their beliefs and values. At the same time, despite people being interested in open textbooks, open education, or OER, some of the participants conflated free or freely available with open. This indicates remaining confusion between the concepts of free and open educational resources. As Porter (2013) noted, OER is a recent innovation that has not yet become integrated in mainstream educational practice. He also noted that there were existing cultural issues and norms within the academy that hindered the adoption of open education and its practices in higher education.

Interpretive phenomenological analysis worked well for this study because it allowed space for the researcher to reflect on her ideas about open education and open textbooks while also reflecting on the lived experiences of others. However, IPA is a complex philosophy with specific crossover and variances to other types of phenomenology that were being learned while the study was underway. One way that I improved upon with practice was the pacing and flexibility in the questions. Although never rigid with the flow of conversation, the finals interviews more closely resembled relaxed conversation without my having to return to my notes. On reflection, I could have asked participants during the interview to feel free to email anything else they had not thought to say. While I did ask when sending the transcripts, some time had passed since the initial conversations.
With open textbooks in particular, there remained some question about what constituted a textbook—especially when looking at an all-digital resource. Furthermore, there was a clear parallel between Pitt’s (2014) key findings concerning educators having trouble finding sufficiently high-quality open products, knowing where to find OER, and not having enough time to look for suitable resources. Although it is worth noting that Pitt’s research is in the preliminary stages, these finding were congruent with statements made by the participants of this study.

Not surprisingly, each individual spoke about the academic culture of their institutions or organization. Academic culture and self-determination—academic freedom—are all a part of what makes up the experiences of an educator trying to adopt or create an open textbook.

Community played a large role in the decision of most of the participants to engage with open textbooks or other forms of OER. In some cases, the communities described were small groups of people working together to create an open textbook. In other cases, participants experienced community by attending conferences and listening to well-known voices in the open education movement. Several participants identified individuals and specific projects that encouraged them to explore OER in greater detail.

Open textbooks may not be a worldwide solution to lowering costs in education as the two participants outside of the US and Canada indicated. In their experience, textbooks were rarely used in the teaching and learning processes in which they have participated.

A comparison between the themes in the literature and the themes that emerged from the data analysis revealed some overlap as well as some ideas that had not been detected or explored in great depth. There were concerns about quality and sustainability of open textbooks as well as concerns about the lack of ancillary material; this was identified both in the review of the
literature and in the data gathered by participants. However, given the formative nature of open textbooks, trust and experience were not yet integrated into the way the participants had been thinking about the phenomenon.

The definition of “quality” for an open textbook seemed to differ in the participant’s viewpoints and experience. Another theme that regularly surfaced was that open textbook implementation did not happen in isolation to other elements of open practice or OER.

Despite concerns for the students being raised by all participants, there was only one mention, by F1, on the possibility of student voice helping to bring focus to open textbooks. Overall, the tendency to talk for student concerns, and without student input, illuminated the notion that traditional thinking about the student-teacher model was still common among the majority of the participants.

This research provided an exploratory perspective on the lived experiences of educators using open textbooks. Due to the qualitative nature of this investigation, it was not possible to generalize the study participants’ experiences with open textbooks to other instructor’s experiences with open textbooks, and further research would be required to ascertain if these experiences are common for other individuals who have worked with open textbooks in other settings. Each experience the participants offered was unique and deeply contextualized to their own workplace, organizational culture, teaching philosophy, and personal outlook. The findings should be read in this context.

Participants often mentioned resistance from other instructors as a barrier to widespread adoption within their institutions. Much of the resistance was based on concerns around the quality of material as well as unfamiliarity around the practice of adopting open educational resources. The ability to reach out to colleagues and address concerns is likely to be integral to
the success of open textbooks. Additionally, the window of impact for open textbooks is small.

Most courses are static after development. As demonstrated in the interviews, most educators began to think of adding new resources on a three to five year schedule—based on the cycle of their textbook editions. During this time the efforts of librarians, personal learning networks, and presentations or conferences were most successful in reaching the educators.

It appears that there are many reasons an educator may decide to implement an open textbook. The preliminary study shows that educators are rarely focused on only open textbooks, and like traditional textbooks, the availability of ancillary materials make adopting these resources more appealing. The study also underscores the varied definition or interpretation of what constitutes open by the participants. Further research is required to discover the role that definition plays in a culture of openness, either through academic or open-source communities. However, the varying definitions indicate that open textbooks or OER have not yet become mainstream. The fluidity of definition points to discussions of open education, as well as praxis, still being formative. In order for the saturation of open education into the mainstream to occur, continual outreach to educators, carefully targeted training programs, better search and storage tools, and support for the communities of practice implementing open textbooks—all issues raised by the participants—would assist in creating awareness and willingness to use open textbooks or other OER.

The inductive character of IPA requires that the theories discussed are derived from the data, rather than the other way around. By looking at the data and attempting to see open textbooks from the viewpoint of the interview participant, I believe that more questions than answers emerged. As I reflect on the research, I am cognizant of the complexities experienced by
educators in higher education. As I mentioned in the literature review, open textbooks and OER operate as an ecology. They are part of a holistic concept, not an individual feature. Despite OER use being strongly correlated to the rise of accessible technology, merely focusing on technology reduces a nuanced phenomenon to technological determinism. There was much to be gleaned from speaking to the individual educators working on individual projects. For me, the most notable takeaway was that for a novice to open education there is more of a concern for the quality than a concern for the community—but the community of open education is greatly influential in determining whether an educator will become involved with OER. With that in mind, I have come to believe that distributed communities of practice where members are involved in open education will greatly contribute to the use of open textbooks, and other OER in higher education.
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Appendix A

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Recruitment Article

Calling open textbook advocates: Danielle Paradis wants to speak with you
December 12, 2013

We recently interviewed Danielle Paradis, a graduate student of Arts in Learning and Technology at Royal Roads University, who is studying educators’ and librarians’ experiences in implementing open textbooks.

We asked her five questions about her research and why it’s important to the future of post-secondary education.

1. **Why did you choose to focus on open educational resources?**
   Open textbooks are only a small part of open educational resources (OER). I discovered a research gap between open textbooks and the people who decide to implement these resources. By looking at the lived experience of these people, we can come to understand what makes open textbooks appealing. That may help instructors, librarians or organizations working with open textbooks.

   There isn’t much research that has focused on educators and instructors. Lots of work has been done with developing and implementing open textbooks, and lots of research into the costs and quality of OER and open textbooks—I want to hear about the praxis.

2. **What generated your interest? Who or what has influenced your thinking?**
   I became interested in open education when BCcampus Executive Director David Porter, now my thesis supervisor, came to speak to my cohort at Royal Roads. He delivered an impassioned presentation around open education and open educational resources beginning with the Universal Declaration of Human Rights, article 26: *Everyone has the right to education. Education shall be free...elementary education shall be compulsory.* This declaration stuck with me. I am a strong believer that education can improve lives.
3. **Tell us a bit more about your research.**
My research proposal and subsequent literature review tells me there is a lot of contextual information around open education, OER, and open textbooks. There is also a lot of debate around what “open” means does not mean. I’ve found there are a few organizations that appropriate the language of open education without following the principles. I’m fascinated by Google trends and what people are looking or searching for online. People are aware of both “online textbooks” and “free textbooks” but “open textbooks” are a small blip outside of open education circles.

4. **What’s next?**
My next stage is interviewing. That’s why I reached out to BCcampus. I am actively looking for more participants.

5. **How can people reach you to find out more?**
I am currently recruiting for at least 10 participants. Interviews will take about an hour each. And, I’d like to talk with people over the next few months. The best way to learn more (or get involved) is to contact me at [email]

From “Calling open textbook advocates: Danielle Paradis wants to speak with you” BCCamups.ca. December 12, 2013. Reprinted under a Creative Commons BY 3.0 license.
Letter of Invitation for Research Participants

Dear ____________________:

I am conducting a survey as a requirement for my Master of Arts in Education and Technology degree at Royal Roads University. The purpose of the study is to examine the experiences of instructors in the adoption of Open Textbooks or other Open Educational Resources (OER).

Open Educational Resources have been defined by the William and Flora Hewlett Foundation as, “teaching, learning and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others.” Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge.

Instructors and librarians can provide very insightful information about their experiences with the implementation of open education resources. With your help, we can gain insight into OER and open textbook adoption practices.

If you agree to participate, you will be asked to participate in an interview (which will take approximately 60-90 minutes and will be recorded) regarding your experiences and opinions about OER implementation. The information you provide will be kept confidential. Neither your name or any identifying information will be published, nor will anyone else be able to see your answers. I will be asking you to respond as an individual, not as a representative of your institution.
If you would like more information about the research, or to be made aware of the results, please contact Danielle Paradis. Thank you for your time and I look forward to your involvement.

**Pre-interview informed consent information**

Adapted from Guidelines from Health Canada (n.d) To Obtain Consent of Individuals Over 18 years of Age:

You have been asked to participate in a research study investigating the experiences you have had during the implementation of OER.

If you agree to participate, you will be asked to participate in a semi-structured interview via a communication tool such as Skype or Google Hangout. The information will be recorded using a computer-recording device.

This study will involve minimal risk of discomfort. The probability of harm and discomfort are unlikely to be greater than your other daily life encounters. Risks may include emotional discomfort from answering survey questions or interview questions.

- You will not directly benefit from participating in this survey although indirect benefits will include elevating our understanding the experiences that educators face implementing OER.
- You are free to cancel the participation at anytime during this interview just provide a verbal withdrawal.
- Although the findings of the study will be published, no identifiable information will be included about individual participants
- There is no compensation offered for participation of this survey.

Please confirm that your consent is being given voluntarily. You may refuse to participate in the survey, or any part of the study. If you chose to participate in the study you may withdraw consent at
any time without negative impact on your relations with Royal Roads University or any other participating institutions or agencies. You will receive a signed copy of this consent form for your records.

Before we begin, do you have any questions?
Appendix C Interview Guide

**Primary Research Question**
What are the experiences of educators or librarians regarding the implementation of open textbooks?
The primary research question for this thesis is an inquiry into the current experiences around the implementation and adoption of open textbooks. It will also help to establish the extent to which participants who use open textbooks are immersed in the OER community. Knowing this can assist organizations and communities of practice in assisting educators and librarians towards implementing open textbooks, and possibly other open source material.

**Fact Sheet**
Record general, non-identifiable information about participants. Gender, age, position in company, number of years involved in company, number of years familiarity with open education.

**Guiding Questions**
Where did you first hear about open textbooks?
Do you remember what your first impressions of open textbooks were?
Have you ever attended a workshop on open textbooks?
What motivated you to use open textbooks?
How does your teaching philosophy intersect with using open textbooks?
How would you describe your experience in implementing open textbooks?
What do you think of the quality of open textbooks?
When you were looking through open textbooks deciding which ones to use what was the deciding factor for you?
Did you revise or remix the open textbook you decided to implement?
What sort of support is needed to make open textbooks sustainable to you for teaching and learning?
## Appendix D Frequency Analysis and Co-Occurrence of Codes

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<th>Concern for Students</th>
<th>Copyright Knowledge</th>
<th>Intro to Open</th>
<th>OER and other online learning</th>
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