

Running Head: GOVERNMENT FUNDING INFLUENCE ON ONLINE COURSE
DEVELOPMENT AT TWO ONTARIO COLLEGES

The Influence of Government Funding on
Online Course Development at Two Ontario Colleges: A help or a hindrance?

by

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Abstract

This thesis explores the influence of government funding on online course development, specifically the Shared Online Course fund offered to two Ontario colleges. It uses a qualitative case study research approach to examine the impact that it had on administrators, faculty, and staff members who were part of online course development under this fund. The findings of the study identify the degree to which the funding influenced the ability of the institutions to develop internal capacity to develop courses online, notes best practices, identifies what challenges were encountered, and makes recommendations that can be implemented for future programs similar to this one.

Keywords: development, instructional design, government funding, online learning.

Table of Contents

Abstract.....	4
Table of Contents.....	5
Chapter 1: Introduction.....	11
Research Questions.....	14
Definition of Key Terms.....	15
Theoretical Frameworks.....	16
Social Constructivism.....	16
Program Theory.....	18
Theoretical framework correlation.....	19
Chapter 2: Literature Review.....	20
Influence of Targeted Government Funding in Online Education.....	20
Government funding in online education (Global).....	21
Government funding in online education (Canada).....	21
Best practices from government funding in online education.....	22
Online Course Development Strategies and Frameworks.....	23
Frameworks and strategies used in online course development.....	24
How strategies and frameworks for online course development have evolved..	24
Access to Online Learning.....	25

GOVERNMENT FUNDING INFLUENCE ON ONLINE COURSE DEVELOPMENT AT TWO ONTARIO COLLEGES	6
What opportunities and barriers exist regarding access to learning?	26
How are these barriers being addressed nationally?	28
What access to learning concerns are specific to the Canadian education system	29
Literature Review Summary	29
Chapter 3: Methodology	30
Qualitative Research	30
Quantitative Research	31
Mixed Methods Research	31
Qualitative Methodology	32
Methods	33
Research tools	33
Document analysis	34
Online survey	34
Data analysis	36
Limitations and Delimitations	38
Limitations	38
Delimitations	39
Ethical Considerations	39

GOVERNMENT FUNDING INFLUENCE ON ONLINE COURSE DEVELOPMENT AT TWO ONTARIO COLLEGES	7
Chapter 4: Results and Analysis	40
Table 1	41
Table 2	41
Table 3	42
Changes in the Online Course Development Process.....	45
Administration	45
Support staff.....	45
Faculty.....	46
Others	46
Changes in Collaboration Within Your Institution.....	46
Administration	47
Support staff.....	47
Faculty.....	48
Others	48
Changes in Collaboration with Other Institutions	48
Administration	49
Support staff.....	49
Faculty.....	50
Others	50

GOVERNMENT FUNDING INFLUENCE ON ONLINE COURSE DEVELOPMENT AT
TWO ONTARIO COLLEGES

	8
Improvement in Knowledge Capacity	50
Administration	50
Support staff.....	51
Others	51
Improvement in Skills Capacity	52
Administration	52
Support staff.....	52
Faculty.....	53
Others	53
Improvement in Technological Capacity.....	53
Administration	53
Support staff.....	54
Faculty.....	54
Others	55
Improvement in Process Capacity	55
Administration	55
Support staff.....	56
Faculty.....	56
Others	56

GOVERNMENT FUNDING INFLUENCE ON ONLINE COURSE DEVELOPMENT AT TWO ONTARIO COLLEGES	9
Improvement in Quality Assurance Capacity.....	57
Administration	57
Support staff.....	57
Faculty.....	58
Others	58
Challenges Encountered	58
Administration	58
Support staff.....	59
Faculty.....	59
Others	60
Future Recommendations	60
Administration	60
Support staff.....	61
Faculty.....	62
Others	62
Survey Results Summary.....	62
Chapter 5: Discussion and Conclusion	63
Discussion.....	63
Research questions.....	64

GOVERNMENT FUNDING INFLUENCE ON ONLINE COURSE DEVELOPMENT AT TWO ONTARIO COLLEGES	10
Internal capacity.....	64
Challenges, lessons learned, and best practices	66
Influence of the Shared Online Course fund	70
Employment category analysis	73
Administrators	73
Support staff.....	74
Faculty	74
Others.....	75
Theoretical framework conclusion.....	75
Recommendations.....	77
Appendix A.....	81
Appendix B.....	87
Appendix C	88
Appendix D.....	90
Appendix E	91
References.....	93

Chapter 1: Introduction

Online learning is thriving across Canada at the post-secondary level (Contact North, 2012) and this expansion presents unique challenges and opportunities in higher education for educators and the institutions that offer online programs and courses. In Canada (outside of Quebec), since 2012 enrolment in online courses has expanded at a rate of 10%-15% per annum and online learning now accounts for 12%-16% of teaching for credit in post-secondary education (Bates, 2017c). Understanding which technological methods, modes, and activities are most effective for learners while also being mindful of cost efficiencies is a question for both online course developers and instructors (Anderson, 2008). Access to online education that is more flexible in terms of time and location than traditional institutional campus-based education has increased communication and interaction amongst online course participants (Anderson, 2008). Post-Secondary online education has many facets and some key reasons for the shift to online education is occurring are:

- Increased access for the masses for high quality education;
- improved access to online educational services such as technical support from institutions;
- increased competition in online education between institutions; and,
- improvements in the quality of online systems, such as learning management systems (Dykman & Davis, 2015).

Learning online has several benefits, for instance having the potential to reach new learners and markets; increasing profits for the institution that is delivering the course/program;

improving access by allowing learners to have access to content almost anytime and anywhere; and being able to keep course materials current in a timely manner (Appana, 2008; Dykman & Davis, 2015). Canada is a vast country with many small communities and although two-thirds of Canada's population live within 100 kilometres of the United States border, that still leaves over eleven million Canadians that are scattered throughout its northern regions (The Daily, n.d. a). In terms of Canadians living outside of the top 35 census metropolitan areas, more than ten million people live in smaller communities (The Daily, n.d. b). Online learning also has its challenges, such as ensuring faculty are properly trained to teach in such an environment; the initial cost of development; ensuring proper supports are in place both educationally and technically for learners; and concerns about forming a connection with the instructor and fellow learners (Appana, 2008; Sener, 2015).

Funding for all levels of education falls under provincial jurisdiction in Canada (McGreal & Anderson, 2007) and, as such, any government funds administered for online learning comes from provincial governments. In 2013 the Ontario provincial government launched the Shared Online Course Fund (SOCF), to promote and expedite the development of online courses and programs in publicly funded Ontario post-secondary institutions. The Fund's initial objective was to enable high-quality, scalable online learning through enhanced, collaborative development of online programs and courses. Applications for the SOCF encouraged institutions to collaborate in the development of programs or courses that were delivered at each respective institution. The lead institution was to submit a proposal on behalf of partnering institutions that maximized credit recognition for courses or programs that were offered at each partner college. Although the available money was public finding, the courses that were

developed were not open education resources. The partnering colleges were given proprietary rights to deliver the online courses and receive the tuition for course enrollments. The application required applicants to identify administrative overhead requirements and demonstrate that well-developed pedagogical processes were being followed in the online course development. In order to receive the full funding, evidence of course completion had to be provided to the Minister of Training, Colleges, and Universities. (Government of Ontario: Ministry of Training, Colleges, and Universities, 2013).

Colleges Ontario, an organization in Ontario that advocates for the 24 colleges of applied arts and technology in the province, and the Council of Ontario Universities, an organization that promotes Ontario universities and their shared values and goals, were charged with administering the funding beginning in the 2013-14 fiscal year until the administration was taken over by eCampus Ontario, a not-for-profit government of Ontario corporation intended to be an online learning centre of excellence accessible for all publicly funded Ontario colleges and universities. In June of 2016, eCampus Ontario released the first funding call on behalf of both the Colleges Ontario and the Council of Ontario Universities. The final round of the SOCF was available during the 2015-16 fiscal year. Every publicly funded Ontario college and university was able to access the funds through successive rounds of funding (Government of Ontario: Ministry of Training, Colleges, and Universities, 2013).

With the conclusion of the SOCF and in the absence of any published evaluation of the initiative, questions remain unanswered as to the overall benefits and challenges of this type of government funding. This research intended to investigate the impact of the SOCF initiative on

three post-secondary institutions that submitted proposals for the SOCF between 2013 and 2016.

The three institutions selected all collaborated on proposal development to access the SOCF with the intention that if successful in their bid the programs and courses developed would be available to student's province wide. The three institutions selected also represent various sized colleges and varied regions in the Ontario college system. Of the three colleges invited to participate in the study, two accepted: Algonquin and Lambton. The third college, identified from this point forward as College X, could not comply with the study timelines and declined the invitation. Algonquin is a large institution in Eastern Ontario, college X is a large institution in the Greater Toronto Area, and Lambton is a small institution in Southwestern Ontario. Pivotal to this research is understanding the benefits and challenges that arose from the government funding of online course and program development for the two institutions. Determining the influence that the SOCF had on online course development along with the benefits and challenges, lessons learned throughout the development process, the building of internal capacity, and the change in approaches to online course development that the institutions took through each successive round of funding, were at the core of this research.

Research Questions

This research investigated the SOCF made available to publicly funded Ontario post-secondary institutions from the provincial government, and later through their non-profit entity eCampus Ontario (eCampus Ontario, n.d.). The research focused on the institutional faculty and staff who were involved, in some capacity, with the implementation of a course developed through the SOCF. Administrators, project managers, instructional designers, course developers, technical support, and subject matter experts were invited to participate in this research and were

questioned on online course development within this funding in order to attempt to answer the research questions. Student experiences were not investigated in this research.

The primary research question for this study was: What has been the influence of the SOCF on online course and program development at three specific publicly funded Ontario colleges? To assist in answering this question, the following sub-questions guided this study:

- Did the SOCF change an institution's internal capacity to develop online courses? And if so, in what ways?
- What were some of the challenges that were encountered, lessons learned and best practices identified after the development of SOCF online courses?

This study's findings provide insight into the influence of the SOCF on online course development that can then inform recommendations for future funding programs of this nature as well as for institutions that participate in them.

Definition of Key Terms

While many of the following terms are likely familiar to individuals involved in online learning, they are included here to clarify their use within this research.

Distance Learning

An educational practice where the learners and the instructors are separated from one another by time, space, or a combination of both (Moller, 1998). Online learning can be a form of distance learning.

Online learning

Using the internet in order to acquire knowledge, develop personal meaning and grow as a learner by having access to learning materials, content, the instructor, and other learners.

Another component to online learning is the ability to access support while engaged in the learning process (Ally, 2008; Sener, 2015).

Pedagogy

Knowles (1980) originally defined pedagogy is the art and science of educating children; however, along with the term andragogy (the science and art of educating adults) are often used to describe the same processes and represent a continuum where both approaches are appropriate for children and adults, depending on the situation (Merriam, Caffarella, & Baumgartner, 2007).

Theoretical Frameworks

A theoretical framework offers a researcher a lens through which a study can be designed, and findings can be interpreted. Utilizing theory-driven research allows an individual to conceptualize all aspects of a study, from the literature review right through to the conclusion and recommendations. The theoretical framework is the basis on which all knowledge in the study is constructed as it provides a foundation for one to build their research. A lack of a theoretical framework results in an absence of vision for the study (Grant & Osanloo, 2014)

There are two theoretical frameworks that guided this research; social constructivism and program theory. Social constructivism was the theoretical paradigm that informed the approach to this research, and program theory provided an additional lens through which to investigate the data.

Social Constructivism

The basic tenet of social constructivism is that an individual's learning is obtained from interactions with others who have varying perspectives based on their own learned life

experiences (Woo & Reeves, 2006). Several prominent theorists such as Piaget (1954), Dewey (1929), and Vygotsky (1978) contend that knowledge is a socially negotiated product and is essentially constructed, being built from our mutually agreed upon conventions (Bates & Sangrà, 2011; Hyslop-Margison & Strobel, 2007).

As social constructivism contends that one's understanding of any given subject is directly related to their past experiences (Phillips, 1995), it is important to understand the perspective that each participant in this study brings. Using social constructivism as a theoretical framework will help me interpret the study's findings by recognizing that individuals' experiences with developing online courses under the SOCF will be influenced by their previous work and life experiences.

As social constructivism has many theorists spanning a broad philosophical spectrum, it is important to view the data through a basic definition of the theory in order to keep the analysis manageable. Further to this, it is also important to focus the lens of social constructivism on the experiences of the participants within the SOCF online course development and not to analyze the data from a political or ideological perspective (Phillips, 1995). A social constructivist lens through which the findings of the study were interpreted ensured that the participant's experiences remained the focal point for the study and it recognizes that the experiences will vary between participants given their preexisting knowledge and experiences. Their responses to the survey were informed by their experiences working within the parameters of the SOCF.

I recognize that their respective responses to my survey are from their perspective of how they interacted with the online course development. The role they held during development also influences their experiences and in turn influenced their responses to the questions in the survey.

Social constructivism acknowledges that regardless of the position held by the participants, they all came into this study with certain preconceptions and assumptions based on their past life and work experiences (Woo & Reeves, 2006).

Program Theory

Program theory is premised on a model of how an individual or organization will achieve the observed or intended outcomes of a program by concisely laying out its design, activities, execution, and evaluation (Social Solutions, 2016; Coryn, Noakes, Westine & Schroter, 2011). This is a broad definition that encompasses a wide range of approaches of evaluation including theory-based, theory-driven, and theory-guided evaluation and also includes the program process and impacts. A critical aspect of program theory is how various parts of a program relate to each other and presumptions and expectations that exist within the program (Coryn, et al, 2011). Simply put, a program theory explains why and how a given program is supposed to operate and a clear program theory allows outcomes to be measured much more easily (Wilder Foundation, 2009).

As program theory is the construction of how a sensible and plausible model of a program is intended to operate and the casual effects that occur as a result of that program (Dahler-Larsen, 2001), incorporating it as a theoretical framework was important to this study. Applying the initial SOCF objectives and expectations and comparing them what actually occurred on-ground during course development will allow me to gauge the success of the SOCF. Program theory is connected logically and conceptually to the context in which the program was released, and the variables that occur within that program often make declaring a program an

absolute success and failure very difficult (Dahler-Larsen, 2001). The evaluation of the SOCF as under program theory will take this in account.

Throughout this research I watched for instances of assumptions and expectations of the SOCF program from the SOCF request for proposals and guidelines. I also took into account the assumptions, and expectations of administrators, managers, instructional designers, project developers, and subject matter experts involved in online course development. Understanding the assumptions and expectations of all parties involved helped to focus my research in determining the influence of the SOCF.

Theoretical framework correlation

Program theory offers me a structural lens to look at the program itself, the logistics, the start, the end, the successes, and the challenges. The social constructivism lens allows me to delve deeper into the participants' experiences, in addition to understanding how the program itself using program theory. The social constructivism lens provides me with an understanding of the influence of the program from the experiences of those that performed the online course development. In this way, I see a connection between social constructivism and program theory in that they complement one another as incorporating a social constructivist approach to the analyzation of a program, one can identify the thoughts, values, and experiences that people connect to it. This allows for a higher degree of precision in their evaluations of a program (Dahler-Larsen, 2001).

Chapter 2: Literature Review

This literature review will investigate previous studies and publications into what influence government funding has on post-secondary online course development. As the intention of the funding was to build capacity and collaboration in developing online courses (D. Porter, personal communication, November 1, 2018), it is important to understand what it takes to produce a quality online course and what access is required in order to make them successful. As such, the review is categorized into three themes: 1) The influence of targeted government funding in online education; 2) Online course development strategies and frameworks; and, 3) Access to online learning.

Influence of Targeted Government Funding in Online Education

There is a dearth of research regarding government funding and its influence on online course development. Essack, Naidoo, & Barnes, (2010) and Kung, Tung, and Case (2007) spoke to government funding in education and their findings included both in class and online education. Studies that did specifically mention online education and government funding did not report on the influences on the actual development of online courses (Ally, 2008; Anderson, 2008; Dykman & Davis, 2015; McGreal, & Anderson, 2007). Information was more readily available about lessons learned from online course development, but these studies were not specifically linked to government funding (Appana, 2008; Bates, 2017c; Essack, Naidoo, & Barnes, 2010; Richards, 2013) and they failed to make a direct link to what influence government funding has on online course development if any.

Government funding in online education (Global)

As mentioned previously, the gap in research into the influence that government funding has on online course development extends globally. There are opportunities to source government funding in online education from several countries including Great Britain, The Netherlands, and the United States of America (SURF, 2018; JISC, n.d.; NYS OER, n.d.); however, these publications do not include information on the influence of the funding, only information regarding the respective programs and how to apply for them. Research into government funding in education was found in a study by Essack, Naidoo, & Barnes (2010) in South Africa that investigated higher education funding aimed at improving the quality of teaching, improving student success and retention, and equitable student access to education. This study; however, was not specifically focused on online education.

Government funding in online education (Canada)

Like research about global funding in online education, research in Canada into the influence that government funding has on online post-secondary course development is minimal. Again, there are several opportunities to source government funding for online education, but no information is provided into the influence that it has on online course development (BCcampus, 2018; eCampus Ontario, n.d.; Government of Alberta, n.d.).

A feature that is somewhat unique in Canada is that education falls under provincial jurisdiction and as such, any research into online learning, while still being mindful of online education at a federal level, should focus on individual provincial initiatives that have great variations (Bates, 2017a; Bates, 2017b, Bates, 2017c; McGreal & Anderson, 2007).

Best practices from government funding in online education

While literature specific to best practices in online course development from government funding does not appear to be readily available, literature pertaining to best practices for online course development is abundant (e.g., Appana, 2008; Essack, Naidoo, & Barnes, 2010; McGreal & Anderson, 2007). Studies found that there was improved student retention and student success by: putting an emphasis on the transition from secondary to post-secondary institutions; establishing more robust and user-friendly learning management systems; collaborating to build more open source software and open educational resources; and providing robust student support services (Essack, Naidoo, & Barnes, 2010; McGreal & Anderson, 2007). Several best practices were identified in the literature including: recognizing that students that are enrolled in online courses need to be educated properly on how to study and learn effectively in an online environment (Appana, 2008); understanding that faculty that are expected to deliver online courses need to be provided with the proper professional development to create an effective learning environment (Appana, 2008; Bates, 2017a; Bates, 2017b); institutional administrators need to look beyond the costs of developing and delivering online courses and need to consider the benefits that offering online courses brings to the student and the institution (Appana, 2008); administrators need to set institution wide targets for the quantity of courses and level of learning (Bates, 2017a; Bates, 2017b); institutions and government should be employing a more systematic strategy to gather reliable, comprehensive data to inform online courses in the future (Appana, 2008; Bates, 2017a; Bates, 2017b); and strong leadership within an institution has a strong influence on the potential success of a project (Berman, McLaughlin, Bass, Pauly, & Zellman, 1977). While these best practices are helpful in the development of online courses, this

research was not necessarily from government funding targeted specifically for online course

development. Another initiative of importance in higher education that relates closely to online learning and is increasingly receiving government funding is open educational resources.

Several initiatives with regards to open educational resources are currently in development (eCampus Ontario, n.d.) and are currently being used in just under half of all post-secondary institutions across Canada (Bates, 2017c). All the above research is focused on pedagogical and technological issues relating to online course development, but there are other aspects of online course development to consider. Particular attention should also be paid to the project management side of course development, including budgeting, training, proper staffing, and scheduling (Bates, 2017a; Bates, 2017b, Kung, Tung, & Case, 2007). Nearly half of all post-secondary institutions in Canada noted that there was a lack in specialized staff and nearly two-thirds noted a lack in training for faculty and staff in order to assist in developing online courses (Bates, 2017a; Bates 2017b). Effective project management is critical to the successful implementation of any initiative (Berman, McLaughlin, Bass, Pauly, & Zellman, 1977).

Online Course Development Strategies and Frameworks

As most post-secondary institutions in Canada view online learning as important to their long-term development (Bates, 2017a; Bates, 2017b), it is important to understand what strategies and frameworks exist that will lead to successful online course development. These frameworks and strategies have evolved as technology has improved, but a constant challenge for developers is being able to select the best online tools to maximize learning potential (Richards, 2013).

Frameworks and strategies used in online course development

Ruey (2010) suggests that several strategies exist that can facilitate effective online course development including: encouraging learners to develop an individual methodology that will assist them in achieving their goals; setting shared goals as a group that will build the learning community and motivate participation; ensuring courses are developed in a manner that engage students in collaborative, contextualized learning; and provide mentoring opportunities by the instructor to help students develop their skills. Anderson (2008) suggests that when planning course design, include time at the outset of the course to allow students to share their cultures, understandings, and experiences. He further recommends bringing external experts into the learning and to utilize not only teacher to students learning but also to incorporate peer to peer learning.

To promote higher order thinking in online learning environments activities must be created that allow the learner to use their metacognitive skills and acquire meaningful knowledge (Ally, 2008; Merrill, 2002). Developing an online course to allow the learner to engage from anywhere, at any time requires skilled instructional strategy where pedagogy either supersedes technology (Ally, 2008) or at the very least is on par with it (Harris & Hofer, 2011; Hilton, 2015).

How strategies and frameworks for online course development have evolved

The evolution of online learning can be linked to its growth in popularity due to several factors: Improvements in access to online technologies and educational support services; changing attitudes in teaching and learning allowing integration with new technologies;

globalization and enhanced competition between educational institutions; and, the growing economic benefits of offering online education versus face-to-face (Dykman & Davis, 2015).

Due in part to advancements in web design, social media, and web 2.0, peer to peer interaction that can increase a student's motivation and dedication to learning is now possible in an online environment while teacher to learner interaction has also benefited from advancements in technology by enhancing the ability to communicate both synchronously and asynchronously in a variety of mediums (Anderson, 2008; AlJeraisy, Mohammad, Fayyoubi & Alrashideh, 2015).

As online course development has evolved, so too has the development of blended learning. The practicality of putting portions of courses online that previously been delivered in a face-to-face environment is thanks in large part to the evolution of online educational technologies (Bilthorpe, Clarke, Fletcher, Moore, & Stark, 2018; Richards, 2013). By allowing sections of courses to be taken in an online environment using mobile technologies, educators and course developers are enabling learners to expand their learning capabilities (Richards, 2013).

Access to Online Learning

At the forefront of online learning is the idea that it provides better access to learners and allows them to learn anytime and anywhere (Anderson, 2008; Richards, 2013). Online learning provides an avenue to reach underprivileged or isolated members of society that may not previously have had access to these educational opportunities (Richards, 2013).

What opportunities and barriers exist regarding access to learning?

According to several researchers (Anderson, 2008; Appana, 2008; Bates, 2017a; Bates, 2017b; Dykman & Davis, 2015), there are many opportunities for students when it comes to online learning. Online learning is much more flexible compared to traditional face-to-face education as learners are not fully bound by time and space. This flexibility has been of great benefit for mature learners, who often must strike a balance between employment, family, and educational obligations. While learning online, another side benefit is the improvement of 21st century skills as students learn technical abilities while engaging with their coursework (Appana, 2008). Examples of this are an increased exposure to social interaction; exposure to digital media; and increased access to web content (Bates, 2017a; Bates, 2017b; Richards, 2013). From an institutional and administrative viewpoint, online learning provides opportunities to explore new markets, not only nationally, but globally. Online learning provides an institution with economic benefits due to economies of scale as an instructor is not limited to a physical space, this assists with a shortage of physical classroom space and in some courses enrollment can be increased greatly (Appana, 2008; Bates, 2017a; Bates, 2017b). It also provides an easier avenue into international partnerships with organizations worldwide thereby increasing the reach and appeal of an institution (Appana, 2008). In addition to more traditional forms of professional development, online learning provides faculty an opportunity to encourage more innovative teaching and allow faculty to better focus on best teaching practices (Bates, 2017a; Bates, 2017b).

Although many opportunities are available due to advancements in technology and online learning, barriers also exist. As online learning is relatively new in terms of the overall history

of educational delivery, established learning theories to guide developers are also being updated and challenged. The relative infancy of online learning, combined with the fast pace of technological change, has resulted in the questioning of established educational theories (Richards, 2013). Specific to technology, online learning is still heavily reliant on internet access, and bandwidth issues affect learning in a negative manner (Anderson, 2008; Bates, 2017a; Bates, 2017b; Bilsthorpe et al, 2018). Other technological barriers are the constant and rapid change in technology that cause online courses to become outdated quickly; network systems that are very complex requiring the employment of skilled professionals in that area; online networks that from time to time still lack stability; and the fact that when one is delivering an online course, there is a need for technological support in real time (Appana, 2008).

There are also barriers regarding the actual learning itself. If a course is delivered globally, cultural differences between learners can present a problem online (Anderson, 2008). Learners also often miss out on the opportunity to pick up on paralinguistic cues and body language used by the instructor and fellow learners (Anderson, 2008). Appana (2008) also indicates that learners with disabilities may be negatively affected if they have no option but to enroll in an online course, and notes concerns that learners feel isolated because of lack of interaction between instructors and their peers.

Institutional, administrative, and faculty barriers also develop as a result of online course development and delivery. There are concerns that the proliferation of online courses will result in more privatization and a possible reduction in educational standards (Appana, 2008). There also are economic concerns as funding is required to start the development of online courses and is often substantially higher than that of starting up a face-to-face course, the lack of specialized

workers as institutions may also be required to hire several specified skilled workers that would not necessarily be required in a traditional educational environment (Appana, 2008; Bates, 2017a; Bates, 2017b). Administration may not have an appropriate organizational structure that supports online learning or a clear vision and rationale for developing and delivering courses online (Bates, 2017a; Bates, 2017b).

Barriers when it comes to post-secondary faculty also exist. Faculty may be resistant to change from a traditional classroom delivery method to delivering a course online. There are also concerns regarding proper faculty professional development to enable them to be put in a position to confidently and successfully deliver an online course (Bates, 2017a; Bates, 2017b).

How are these barriers being addressed nationally?

In Canada, barriers to online learning are being addressed in several ways. Firstly, there are online courses in almost all subject areas providing learners with better access and more flexibility (Bates, 2017c). Secondly, the Canadian government has instituted a program called *Connecting Canadians* and that intends to provide high speed internet access to at least 280,000 rural and remote households (Digital Canada 150, n.d.). This initiative was announced in 2006 and 500 million dollars over 5 years was earmarked for it with the intent of enhancing broadband service in remote and rural areas. This program, however, only covers 50% of the costs for rural and remote locations, and 75% for very remote and Indigenous communities (Digital Canada 150, n.d.), even with this funding these remote communities still may not be able to cover the remainder of the costs. More recently the Government of Canada and its Provinces and Territories have restated their commitment to making high speed connectivity a priority for Canadians (Government of Canada, 2018).

What access to learning concerns are specific to the Canadian education system

There are concerns regarding access to learning that are specific to Canada that need to be addressed. Although most of the Canadian population lives within 100 kilometres of the United States border, it is still a vast country that must support its communities that are spread through its northern regions, and this is a costly endeavor when it comes to providing internet access (Digital Canada 150; McGreal & Anderson, 2007). The Federal government invests heavily into the development and management of digital research internet infrastructures (CANARIE, 2019); however, the Canadian education system falls under provincial jurisdiction, and as such, this has created many educational policies between provincial and territorial regions. These provincial and territorial educational policies change as new governments are elected creating various access issues across the country (McGreal & Anderson, 2007).

Literature Review Summary

Understanding the reasoning behind how and why various pedagogies and technologies were selected was critical to this research as the availability of post-secondary online courses continues to grow, in fact in Canada (excluding Quebec) the number of online education college courses for credit increased by over 35,000 from 2011 to 2015 (Bates, 2017). Some further data that illustrates the growth of online learning in Canadian post-secondary institutions is: In Canadian public colleges and universities more than 67% offer online credit courses; there were more than 1.3 million registrations for online courses in 2018; approximately twenty percent of students are enrolled in at least one online credit course; and almost three-quarters of post-secondary institutions expect an increase in online enrollments for 2018-19 (Bates, 2018). This

data illustrates the importance of understanding the effective use of technology and pedagogy in online course development as the shift away from traditional classroom delivery increases.

While there is an abundance of information on online learning in general and suggestions for how to develop an effective online course or program, limited research is available into how government funding has an influence in online course development both globally and nationally. A gap exists in research that specifically investigates the influences that targeted government funding may have in online course development.

Chapter 3: Methodology

There are three main research approaches, that are associated with educational research: qualitative research, quantitative research, and mixed methods research (Johnson & Christensen, 2014).

Qualitative Research

Qualitative research relies on the collection of data that is non-numerical, such as words and pictures. Qualitative data is often used when little is known about a subject and one wants to discover more about it. It is also the paradigm most often used to allow participants to express their perspectives and experiences. Qualitative research often views human thoughts and behaviour as social, contextual, and unpredictable (Johnson & Christensen, 2014).

Qualitative data is collected using various tools such as; interviews, focus groups, observations, questionnaires, and document analysis. Patterns and themes are searched for as the data is analyzed and a narrative is created to express the participants experiences (Creswell, 2012; Johnson & Christensen, 2014).

Creswell (2012) explains that qualitative research is suited to deal with a research question when you are unsure of all the variables and more exploration is required. This type of research seeks to explore a phenomenon by learning from its participants by asking questions which allow the participants to share their experiences.

Quantitative Research

Quantitative research relies heavily on the collection of data that is numerical. Quantitative researchers often follow a hypothesis and theory testing approach whereby the researcher will state one's hypothesis and collect empirical data to see if it (they) are supported. Contrary to qualitative research, quantitative research tends to view human thoughts and behaviour as regular and predictable.

Quantitative data is collected using well-structured and validated collection instruments, such as surveys. Statistical relationships are identified from the numerical variables found in the data and findings are objectively presented in the form of a statistical report (Johnson & Christensen, 2014). Quantitative research seeks to answer questions based on the need to explain why something occurs by asking specific questions in order to acquire observable and measurable data. Statistical procedures are used to break down and analyze the data and it is presented in a objective tone void of personal opinions (Creswell, 2012).

Mixed Methods Research

Mixed methods research involves the utilization of both qualitative and quantitative research paradigms. Depending on the research situation, more or less of a paradigm may be incorporated (Johnson & Christensen, 2014).

Mixed methods research collects both qualitative and quantitative data, either concurrently or sequentially, and uses a combination of narrative and numbers to convey the data. Proponents of mixed method research note that by combining the strengths and weaknesses of different research methods, it is far less likely that you will miss something or make a mistake (Johnson & Christensen, 2014). It can be perceived as the best of both research worlds.

There are some issues with mixed method research that need to be fully explored by the research community. Many believe that a language unique to mixed methods research needs to be created for it to be fully legitimized as a research method. Also, mixed method research questions can be confusing for respondents if not done correctly, and design typologies can't be exhaustive in mixed method research due to its iterative nature (Teddlie & Tashakkori, 2007).

Qualitative Methodology

Based on the research questions and the need to understand the experiences of the individuals involved in the development under the SOCF, the methodology that best suited this research and the goal of this study is qualitative and the tools used were document analysis and on online qualitative survey. As a researcher, I am seeking to learn about the experiences of those involved with the program's implementation and how those experiences might inform the development and delivery of future funding programs. Qualitative methodology offers the researcher a framework to collect and interpret data that cannot be numerically measured, for example the participants' perspectives and experiences (Johnson & Christensen, 2014).

A case study is best defined as a research inquiry that focuses on a particular thing, a process of undertaking a systematic inquiry into a chosen phenomenon that adds to the public

knowledge of the chosen topic (Simons, 2009; Yin, 2014) and is a form of qualitative research.

The case being studied in this research is the Shared Online Course Fund. While not a complete evaluation of the program, this research does focus specifically on the program and the manner within which it was received by colleges and how it may have influenced online course development. The findings will inform practices and processes aligned with this program or future similar programs.

Methods

This research sought to understand the influence of government funding on post-secondary online course development by examining the experiences of those who were involved with developing courses under the SOCF. Methods used for this study consistent with qualitative methodology included document analysis and an online survey.

Research tools

Ideally, I would have liked to have had the time and resources to conduct in depth qualitative interviews with participants; however, due to the tight timelines and absence of resources I opted for document analysis and an online survey. The intent was to examine the SOCF guidelines and request for proposal documents and then perform an online survey to capture the participants experiences. Ten of the twelve questions allowed participants to share their experiences.

Document analysis

Before the online survey was designed, SOCF documents were analyzed in order to understand the expectations of the program. Collaboration between institutions and offering high-quality, scalable online courses (Government of Ontario: Ministry of Training, Colleges, and Universities, 2013) was an important part of the funding guidelines and as such the online survey was then built with this in mind and questions were asked to gauge the experiences of those involved in the development of courses under the SOCF.

Online survey

An online survey was the primary tool for collecting data and it was distributed using LimeSurvey©, which hosted the data in Canada (Schmitz, n.d.). This was important as data being stored in the United States could pose ethical issues as safeguarding the data cannot be guaranteed (Government of Canada, n.d.). The survey asked both multiple choice quantitative questions and qualitative open-ended questions. The first two questions asked where the respondents worked and what their job position was while working on courses developed under the SOCF, these were intended to sort participants into separate categories for potential case study analysis if possible. Questions 3-12 were two-part questions, first asking if the participants experienced any change or improvement in a certain area, then allowing the respondent to elaborate with a qualitative response in the second part of the question.

The online survey, being the primary data collection tool, offered many benefits, such as: being cost-effective; making it easier to conduct research across a large geographic area; and being able to efficiently collect data. It was important to also recognize and be mindful of risks

that are present when utilizing a survey as the primary data collection tool. Some of these risks include: intentional misreporting by respondents to disrupt survey results; poor recall of events linked to the survey from respondents; and biases that may occur due to lack of response from the participants or in the accuracy of the responses that are received (Glasow, 2005).

The intended participants in this research were administrators, managers, instructional designers, project developers, and subject matter experts (identified as faculty in the online survey) from Algonquin, Lambton, and college X that were directly involved with developing courses through the SOCF. All participants were identified with the assistance of the human resources department at the respective colleges and no surveying was conducted until Research Ethics Board approval had been obtained. All employees that are involved in online learning and course development at the respective colleges were invited to participate in the survey. As it was hard to differentiate if individuals were involved with online course development directly through the SOCF, outside of the SOCF or a combination of the two, the first question asked them if they participated in the development of any courses through the SOCF. If they were not part of any of these courses they did not proceed through the remainder of the survey. It was important to survey as many administrators, managers, instructional designers, project developers, and subject matter experts as possible in order to get many perspectives in the study. Once ethics approval was granted from participating institutions, an email explaining the study and inviting their employee's participation was sent to the human resources department for each College. The researcher worked with each institution and followed their institutional protocol for survey distribution. Once the initial email invitation was sent there was one reminder email sent three weeks after the initial survey email. The questions were a mix of short answer

questions and multiple-choice questions that allowed the researcher to sort and average the data quickly and be able to recognize trends that occurred in the responses (Johnson & Christensen, 2014). The survey is attached in appendix A.

Data analysis

After examining and analyzing the data from the SOCF request for proposals, the data that was collected from the survey was compiled and analyzed to determine what trends and similarities or differences were occurring with the respondents. The data analysis used the built-in analysis options available through LimeSurvey © (Schmitz, n.d.) and Microsoft Excel © to sort and analyze the data.

Prior to developing the survey questions or developing this research proposal, SOCF request for proposals were examined to better understand the expectations and intentions of the government funding. Several key areas were identified throughout the documents, including: improvement in technological capacity; expansion of the reach of online courses throughout the province; collaboration between institutions and sharing of resources; improvement in knowledge and skills in developing online courses; innovative pedagogical approaches; and improvement in the online course development process (OntarioLearn, 2016). These key areas influenced the development of the survey questions and were evident in the participants responses during data analysis.

Any quantitative data generated by the survey was analyzed to identify any statistical relationships that exist in order to categorize the findings (Johnson & Christensen, 2014). Categorical variables (Johnson & Christensen, 2014) were used in this proposed research asking the participants whether or not they participated in course development for SOCF projects;

which institution they were employed at while developing these courses; and what their role was in the development process.

As qualitative data collection and analysis techniques have improved greatly over the past 40 years and many options exist in terms of which is the best suited for any particular research project (Punch, 2016), organization of all data collection stages was important and the following five-step technique for data analysis was employed:

1. Ensure a thorough documentation of the data and the process of data collection in order to preserve a record of what happened and when.
2. Identify, categorize, and conceptualize key concepts in the data. Use a well-designed chart to condense data into simpler categories.
3. Display the data and examine any relationships therein. Use a detailed and well-designed chart that illustrates how different concepts are connected.
4. Ensure the authenticity of responses. Make sure that thought was given to the credibility of the participant, that they weren't led on by research questions, and that they had tacit knowledge of the online development process under the SOCF.
5. Reflexivity. Provide an honest and open account of how the I (the researcher) interacted with the participants. By doing so an openness and transparency will be evident in the research process (Check & Schutt, 2011).

There was also a post survey thematic analysis of the data to interpret themes, patterns, and holistic features as they presented themselves during data analysis (Johnson & Christensen, 2014).

Limitations and Delimitations

Limitations

There were some limitations to the proposed research, most of which related to personnel and staffing issues and time constraints. One major limitation that was considered was the fact that Ontario had a recent change of government that might affect the amount of funding directed towards online course development. If the funding was cut back, or removed completely, personnel that were in key positions at Algonquin, Lambton, and college X may have had to move to other positions within the college, or leave the college completely. This potential disruption could have been a concern as it would be much harder to connect with the prospective study participants. The same issue existed in regards to the employees at eCampus Ontario, as this is a not for profit government organization (eCampus Ontario, n.d.), a cut in funding could have potentially disrupted the organization and employees could have been difficult to connect with in order to prepare for my research.

Two main limitations existed in terms of how many participants would participate in the research. Firstly, voluntary participation of the administrators, managers, instructional designers, project developers, and subject matter experts in the research was a concern. These individuals are busy and although the commitment for the survey was only expected to be one half an hour in total, potential participants could have declined given an already busy work life. Secondly, the sample size for this research is limited as only select individuals at each institution worked on the SOCF.

The time that it took to complete the research and compile all of the data was another limitation. As is shown in the timeline in the next section, there were only 40 weeks to collect

the data, analyze the data, and prepare the research paper. In order to properly administer the survey and analyze the data properly meant I had to keep and meet tight timelines.

Delimitations

In terms of delimitations for the research, foremost is the decision not to include faculty delivering the online courses or students taking the online courses in this proposed study. The faculty that were included in the study acted as subject matter experts in the online course development and the delivery of online courses was not included in this research. One reason for leaving faculty and students out of the research was that due to the tight timelines of the study. Including faculty who have taught various courses that have been developed and students that have taken online courses that were developed through the SOCF will increase the amount of surveys required, and practically speaking this would not be possible to complete in the time given. Students and faculty were also not included in the study because the intent of the study is to look at online course development, not delivery. I was apprehensive of surveying faculty and students for this study as I was skeptical that some would not be able to separate course development from course delivery for courses developed under the SOCF, which may be an entire study on its own for future research.

Ethical Considerations

The research adhered to all standards set out by Royal Roads University, Algonquin College, Lambton College, and college X. The main ethical consideration was the anonymity of the participants to ensure that any of the comments they provide will not cause a negative effect

on their professional careers. Ensuring that there is a respect for each person that participated in the research and that their welfare is protected was paramount in this research design (Royal Roads University Research Ethics Policy, n.d.). Consideration was given to employees at the three colleges being surveyed and their welfare needed to be protected during this research. Participants were notified in the email as well as the survey introduction that they may withdraw from participating or completing the survey at any time. The main anticipated ethical consideration was power relationships, where an individual's survey data may be used against them by a superior in the workplace. Given that this study relies heavily on qualitative data I needed to be careful not to overly detail my descriptions of participants responses in order to fully ensure their identity was protected. Further to this, to address the power relationship that may exist from a subordinate feeling pressured from their superior in the workplace to rate the process of developing courses in a certain manner, all data remained anonymous and sorting categories in the survey was generalized so no individuals could be identified. Although employees at my own college were surveyed, none were directly my superior nor subordinate. All ethical considerations were discussed with my thesis committee before submitting for Research Ethics Board approval.

Chapter 4: Results and Analysis

Research ethics were granted by each of the colleges invited to participate in this study. Of the three colleges, Algonquin and Lambton were able to comply with the time requirements for the distribution of the online survey to prospective participants while college X was not. Each of the participating colleges identified prospective participants based on the criteria established by the researcher. Table 1 details the participation rates for each College:

Table 1

Participation Rates by College

College	Invitations Sent	Completed Surveys	Participation Percentage
Algonquin	8	3	37.5
Lambton	41	17	41.5
College X	Did not participate		
TOTAL	49	20	40.8

Table 2 below presents the results of the first two questions from the survey.

Survey Question (1): Which institution were you employed at while you worked on developing online courses through the Shared Online Course Fund?; and

Survey Question (2): What was your job title while working on the Shared Online Course Fund? Table 2 below summarizes participants by college and job title.

Table 2

Survey Participants by College and Job Title

College	Total Participants	Administration	Support Staff	Faculty	Others
Algonquin	3	3	0	0	0

GOVERNMENT FUNDING INFLUENCE ON ONLINE COURSE DEVELOPMENT AT TWO ONTARIO COLLEGES

42

Lambton	17	3	9	3	2
College X	Did not participate				

Table 3 below summarizes how many participants responded to each question and how many experienced no change in the course development process, indicated by a 'no' answer in the survey. If the participants answered yes to any of questions 3-12, they were given an opportunity to elaborate by providing a comment on that respective question.

Table 3

Changes in the Online Course Development Process Responses

Question	Total Respondents	Change Found (Yes)	No Change Found (No)
3. In your time working on online courses that were funded through the Shared Online Course fund, did you experience changes at your institution in the online course development processes?	20	13	7
4. In your time working on online courses that were funded through the Shared Online Course	20	11	9

GOVERNMENT FUNDING INFLUENCE ON ONLINE COURSE DEVELOPMENT AT TWO ONTARIO COLLEGES

<p>fund, did you experience changes in collaboration among those involved in the project within your institution?</p>			
<p>5. In your time working on online courses that were funded through the Shared Online Course fund, did you experience changes in collaboration among those involved in the project from other institutions?</p>	20	10	10
<p>6. In your time working on online courses that were funded through the Shared Online Course fund, did you experience improvement in overall capacity in terms of knowledge?</p>	20	8	12
<p>7. In your time working on online courses that were funded through the Shared Online Course fund, did you experience improvement in overall capacity in terms of skills?</p>	20	14	6
<p>8. In your time working on online courses that were funded through the Shared Online Course fund, did you experience improvement in overall capacity in terms of technology?</p>	20	11	9

GOVERNMENT FUNDING INFLUENCE ON ONLINE COURSE DEVELOPMENT AT TWO ONTARIO COLLEGES

<p>9. In your time working on online courses that were funded through the Shared Online Course fund, did you experience improvement in overall capacity in terms of process?</p>	<p>20</p>	<p>11</p>	<p>9</p>
<p>10. In your time working on online courses that were funded through the Shared Online Course fund, did you experience improvement in overall capacity in terms of quality assurance?</p>	<p>20</p>	<p>11</p>	<p>9</p>
<p>11. In your time working on online courses that were funded through the Shared Online Course fund, what types of challenges did you encounter?</p>	<p>20</p>	<p>15</p>	<p>5</p>
<p>12. What recommendations would you make to others in future similar projects?</p>	<p>20</p>	<p>16</p>	<p>4</p>

The following sections summarize the survey’s qualitative data from the comment option of questions 3-12. Each of these survey questions is broken down into the four job categories that participants were able to select during the survey (administration, support staff, faculty, and others) and common themes were grouped where appropriate.

Changes in the Online Course Development Process

The third survey question asked the participants *'In your time working on online courses that were funded through the Shared Online Course fund, did you experience changes at your institution in the online course development processes'*. The following paragraphs summarize the responses by job category.

Administration

Five out of six administrators noted that they had experienced changes in the online course development process, while one provided no comment. Twenty percent of the comments pertained to external companies and resources being utilized; forty percent of the comments referenced processes being streamlined as a result of creating a centralized unit for online course development, for example creating a “centralized unit to help with this process”; twenty percent of the respondents felt that more software was able to be purchased as a result of the funding resulting in more professional development opportunities; and twenty percent of respondents claimed that new technologies were used to support online learning development.

Support staff

Five out of nine support staff noted that they had experienced changes in the online course development process, while four provided no comment. Forty percent of respondents felt that the colleges should have hired seasoned developers to ensure standards were met and an equal percentage of respondents felt that using co-op students as eLearning developers negatively affected the course quality; twenty percent of respondents commented that at times

complete contempt and disregard for the instructional design process led to deterioration of quality of courses; and forty percent felt that development processes were improving as work progressed through the SOCF, for example: “processes evolved as new situations arose, increasing efficiencies and developing 'sop's' (standards of practice)”.

Faculty

Two out of three faculty noted that they had experienced changes in the online course development process, while one made no comment. Fifty percent of respondents felt that “we really did not have a process in place prior to participating in the Shared Online Course funding”; and that same percentage noted that between when the kick off meeting occurred and when the first round of content was submitted, the templates required to submit content changed.

Others

One out of two others noted that they had experienced changes in the online course development process, while one provided no comment. The comment was that they “introduced Quality Matters© to our institution which enhanced the overall design of our online courses.”.

Changes in Collaboration Within Your Institution

In the fourth question participants were asked: *‘In your time working on online courses that were funded through the Shared Online Course fund, did you experience changes in collaboration among those involved in the project within your institution?’* The following paragraphs summarize the responses by job category.

Administration

Five out of six administrators noted that they had experienced changes in collaboration within their institution, while one noted they did not. Sixty percent of respondents felt that due to the visibility of this project multiple departments had to work together, possibly to procure more funding for their department, for example: “as staff became more knowledgeable about the process and the tasks involved, collaboration improved amongst themselves, and also with significant stakeholders”; twenty percent said that collaboration improved as staff became more knowledgeable about the online development process; while twenty percent said there was no discernable level of change in collaboration.

Support staff

Three out of nine support staff noted that they had experienced changes in collaboration within their institution, while six provided no comment. Thirty three percent noted that each instructional designer had their own approach, and rather than following the process set by the college they wanted to follow their own which made for extra work to ensure final products complied with college standards; thirty three percent said that defined roles and communication between subject matter experts, instructional designers, and project assistants evolved as greater efficiencies were sought; and thirty three percent noted that they were introduced and trained to use “industry standard productivity tools”.

Faculty

One out of three faculty noted that they had experienced changes in collaboration within their institution, while two provided no comment. The faculty comment for this question was that project assistants (whom were mainly post-secondary co-op students) varied in terms of quality of work and efficiency in online course development, “there was a large variation on the quality of work completed and efficiency of work completed. As anywhere, some people are good at their job and engaged in it, and some aren’t”.

Others

One out of two others noted that they had experienced changes in collaboration within their institution, while one provided no comments. The others comment was that they realized in order to meet demands for online course development, they needed to develop staffing roles in Accessibility for Ontarians with Disabilities (AODA), copyright, Quality Matters©, amongst others.

Changes in Collaboration with Other Institutions

The fifth question in the survey asked the participants *‘In your time working on online courses that were funded through the Shared Online Course fund, did you experience changes in collaboration among those involved in the project from other institutions?’* The following paragraphs summarize the responses by job category.

Administration

Six out of six administrators noted that they had experienced changes in their collaboration with other institutions. Seventeen percent felt that the project managers were critical and collaboration between institutions improved as the project progressed; seventeen percent noted that there were attempts at completing equivalency assessments with other institutions (to determine if shared course content and delivery was similar or not); thirty three percent felt that they built and established relationships with partners and share of resources and ideas; and thirty three percent said that they experienced great changes as a result of the funding and “as a result of the funding, we were able to share and learn best practices, share resources, and improve the quality of our online course design internally”.

Support staff

Three out of nine support staff noted that they had experienced changes in their collaboration with other institutions, while six provided no comments. Thirty three percent felt that there was a stronger appetite for cross-institutional collaborations; thirty three percent noted that extra work was involved when they collaborated with other institutions as “the primary College have their own process for developing courses which was followed over the process of the college I belong to. This involved doing additional work so that all processes from all colleges were followed”; and thirty three percent of respondents noted that there was a lack of support from other colleges involved in the project

Faculty

Zero out of three faculty provided comments that they had experienced changes in their collaboration with other institutions.

Others

One out of two others noted that they had experienced changes in their collaboration with other institutions, while one provided no comments. The comment from the others was that there has been significant growth since the start of this project due to cross-institutional collaboration and that they had “seen an increase in online learning and the need for partnering with other interested colleges has been significant. Colleges are now looking to us to design their online courses for the which will only increase our growth within our institution”.

Improvement in Knowledge Capacity

The sixth question in the survey asked the participants *‘In your time working on online courses that were funded through the Shared Online Course fund, did you experience improvement in overall capacity in terms of knowledge?’*. The following paragraphs summarize the responses by job category.

Administration

Three out of six administrators commented on this question, while three provided no comment. Thirty three percent of respondents felt that as time went on, knowledge increased in all staff through experience in developing more courses (learned by doing); thirty three percent

gained experience through more access to professional development; and thirty three percent of the respondents noted that going to external development didn't change the quality of the final product.

Support staff

Three out of nine support staff commented on this question, while six provided no comment. Thirty three percent of respondents noted that knowledge of course subject matter improved as well as “theory relating to andragogy”; thirty three percent felt that courses were developed to support capabilities for a student but not necessarily the competencies that would make the student excel in the industry; and thirty three percent commented that there was an improvement in adopting best practices

Faculty

One out of three faculty commented on this question, while two provided no comment. The faculty comment was that they “became more efficient at producing content and in some ways quality of content as my knowledge base of the subject matter grew. Although I had a good general idea of the subject matter, it was very specific content and I learned a lot as the course developed”.

Others

One out of two others commented on this question, while one provided no comment. The others comment was that their “training in Quality Matters© has been the most powerful tool

throughout this project. I have gained knowledge in designing and delivering online courses, and the processes it entails to create quality courses”.

Improvement in Skills Capacity

The seventh question in the survey asked the participants *‘In your time working on online courses that were funded through the Shared Online Course fund, did you experience improvement in overall capacity in terms of skills?’*. The following paragraphs summarize the responses by job category.

Administration

Six out of six administrators provided comments on this question. Thirty three percent of respondents felt that staff developed their skills through exposure to developing more courses, noting that “both managers and tech assistants became more knowledgeable of the program and the deliverables as the projects and funding increased. With greater experience, naturally came better skills”; thirty three percent felt that Quality Matters© training added skills; and thirty three percent noted that access to additional resources led to higher quality courses.

Support staff

Seven out of the nine support staff commented on this question, while two provided no comment. Fourteen percent felt that subject matter experts were able to learn about instructional design and the value of interactive elements in course design; fourteen percent said team members were added with stronger skills; twenty eight percent felt that competencies were increased in terms of software such as Google sheets, AODA, and Articulate storyline 2;

fourteen percent increased skills in project management, communication, and rapid course authoring tools increased; fourteen percent said that they increased their skill level as they developed more courses, for example: “because of the level of content I was turning out I learned a lot about how to write concisely and how to use various learning activities”.

Faculty

Zero out of three faculty provided comments on this question.

Others

One out of two others commented on this question, while one provided no comment. The comment was that skills increased in applying instructional design and universal design principles to online course development and that their “skills in project management, coordination and leading the Project Assistants has also increased.”

Improvement in Technological Capacity

The eighth question in the survey asked the participants *‘In your time working on online courses that were funded through the Shared Online Course fund, did you experience improvement in overall capacity in terms of technology?’*. The following paragraphs summarize the responses by job category.

Administration

Five of six administrators commented on this question, while one provided no comment. Twenty percent felt that technologies improved as the funding improved and that as time went on

the staff better understood the pedagogy behind why and when to use certain technologies; twenty percent noted that technology improvements were made, but not much thought was given to the reasoning before purchasing the tools, “Although surface technological improvements were made, such as purchasing software such as Articulate 360, and improved our technological hardware, no thought was given to the pedagogy before purchasing the tools. We only did it because other collaborators were. In other words, maybe other technologies could have served us better”; twenty percent felt that staff became better versed in the technologies as they gained experience; and forty percent noted that technologies were only procured because of funding, without the funding no technology for developing online courses would have been purchased.

Support staff

Five out of nine administrators commented on this question, while four provided no comment. Twenty percent felt that skills were increased in new technologies while eighty percent noted they were able to purchase and implement several new software technologies to improve their online course development, for example purchasing “various software (Adobe CC, Articulate, Camtasia) as well as video/audio recording equipment”.

Faculty

Zero out of three faculty provided comments on this question.

Others

One out of two others commented on this question, while one provided no comment. Their comment was that they are “now able to operate Storyline 360 to create online courses and Adobe Connect web conferencing tools”.

Improvement in Process Capacity

The ninth question in the survey asked the participants *‘In your time working on online courses that were funded through the Shared Online Course fund, did you experience improvement in overall capacity in terms of process?’*. The following paragraphs summarize the responses by job category.

Administration

Three out of six administrators commented on this question, while three provided no comment. Thirty three percent noted that ongoing improvements were made in processes as the project progressed; thirty three percent said that the funding disrupted existing processes, “there were such tight timelines that it seemed that things were thrown together without much thought on proper processes. Flying by the seat of our pants basically”; and thirty three percent felt that they were able to assign dedicated project managers for select processes to support completion success.

Support staff

Six out of nine support staff commented on this question, while three provided no comment. Thirty three percent felt that there were significant improvements in development and feedback process; seventeen percent noted there was greater inclusion of instructional design considerations noting that there was a “greater inclusion of instructional design considerations prior to course deployment”; seventeen percent noted a greater understanding of online development content; seventeen percent said they learned course development processes from concept to final product; and seventeen percent noted improvements in course accessibility.

Faculty

One out of three faculty commented on this question, while two provided no comment. The faculty comment was that their quality of writing improved substantially, “as I went through the content development process and therefore the editing of material and therefore speed of creating and finishing a module increased a lot”.

Others

One out of two others commented on this question, while one provided no comment. The comment was that “processes and work flow has been critical in the development of our online projects. We now serve external partners and processes and project management are paramount skills needed to run our Design House efficiently”.

Improvement in Quality Assurance Capacity

The tenth question in the survey asked the participants *'In your time working on online courses that were funded through the Shared Online Course fund, did you experience improvement in overall capacity in terms of quality assurance?'* The following paragraphs summarize the responses by job category.

Administration

Five out of six administrators commented on this question, while one provided no comment. Forty percent felt internal quality assurance processes were implemented and improved. Twenty percent felt that due to tight timelines, sometimes it seemed that quality assurance was ignored; and sixty percent noted that "quality assurance processes were improved as we were able to put more focused funding on QA" by implementing Quality Matters© as more staff were able to be trained as the project grew and this improved the online course quality.

Support staff

Five out of nine support staff commented on this question, while four provided no comment. Twenty percent felt "completing Quality Matters© training (applying the qm (sic) rubric)" helped improve quality assurance"; twenty percent noted that they learned how to properly write course outcomes and assess the quality of a course due to experience gained; twenty percent noted there was a vast improvement in quality of product; twenty percent stated that the quality assurance standardized tool (Quality Matters© rubric) was applied to some

courses but not all; twenty percent said they gained experience in online quality assurance as they developed more courses.

Faculty

Zero out of three faculty provided comments on this question.

Others

One out of two others commented on this question, while one provided no comment. The comment was that they were exposed to several online courses and better learned to identify quality course components as the project went along.

Challenges Encountered

The eleventh question in the survey asked the participants *'In your time working on online courses that were funded through the Shared Online Course fund, what types of challenges did you encounter?'*. The following paragraphs summarize the responses by job category.

Administration

Five out of six administrators commented on challenges during the development of online courses through the SOCF, while one provided no comment. Twenty percent felt that there was a lack of infrastructure and understanding of the process; twenty percent noted unclear expectations of the final deliverables and a lack of dedication from partners to meet the deadlines, noting that there was an issue with "capacity (time constraints) at times for project

dedication/involvement by project leads, members”; twenty percent said there was concern about the sustainability and maintenance of these courses in the future; twenty percent noted there were differing resource capacities amongst partners led to challenges in collaborating with other institutions; and twenty percent felt that due to the rapidness of the funding and its successive rounds, they were not able to take time to reflect on our successes and challenges from the previous courses developed.

Support staff

Six out of nine support staff commented on challenges during the development of online courses through the SOCF, while three did provided no comment. Thirty three percent noted that as an instructional designer, they felt their contributions mattered less and less as time went on as there was a reluctance to adopt proved instructional design methods; seventeen percent said there was a feeling that cheap production of *"mclearning nuggets"* had become the goal as there was an over-reliance on use of interactive tools over proper pedagogy; seventeen percent felt most challenges were based on personalities that did not want to follow the process; and seventeen percent noted there were issues with management of human resources “when a temporary manager was brought on”; and seventeen percent noted a lack of feedback from other college partners

Faculty

Three out of three faculty commented on challenges during the development of online courses through the SOCF. Thirty three percent felt that there was a lack of understanding from managers “who did not fully understand the curriculum of the program selected to receive

funding. As a result, many decisions were made initially that were not possible to follow through with”; thirty three percent noted working with new/evolving processes that were not well established; and thirty three percent felt that working with multiple instructional designers was a challenge as each had different preferences for how the courses should be designed.

Others

One out of two others commented on challenges during the development of online courses through the SOCF, while one provided no comment. The comment was that they had some staff turnover which contributed to some of our challenges in establishing feasible work processes and development of projects; however, “since we have been consistent in the last two years with staff, we are heading in the right direction with respect to designing and creating more online courses and programs. In addition, due to a lack of funding, we haven’t been able to secure any permanent part-time and/or full-time positions” and this has affected their “ability to maintain a level of consistency that enhances overall growth and productivity”.

Future Recommendations

The twelfth and final question in the survey asked the participants *‘What recommendations would you make to others in future similar projects?’*. The following paragraphs summarize the responses by job category.

Administration

Five out of six administrators provided recommendations for future similar projects, while one did not provide any recommendations. Forty percent recommended to come ready

with strong project management staffing models and technological resources, including “a sound business structure, staffing model, and appropriate technical resources”; twenty percent asked to not force collaboration, noting that it “led to some poor decision making. Partners for the sake of the contract, but not actual collaboration. Instead, bring people together and create more organic collaborations”; twenty percent asked to give time to reflect and deliberate on previous development before introducing new funds/programs; and twenty percent asked to allow for more time for project completion.

Support staff

Seven of nine support staff provided recommendations for future similar projects, while two did not provide any recommendations. Twenty eight percent asked to prioritize a holistic and consultative approach and ensure all stakeholders are part of this process; twenty eight percent recommended transparency and accessibility for all the partners in the design and review process; fourteen percent wanted to “explore productivity strategies outside higher ed. We are still very slow to develop courses and can no longer use the excuse of quality. Many industries adhere to quality standards while improving their output”; fourteen percent asked that organizations involved in shared course development also share resources and training; fourteen percent had major issues with the instructional design process, stating that “the ID has to be brought in at the very beginning of the project, and all decisions regarding design of the learning must have ID input. IDs are brought in too late, as an afterthought, after the major decisions have already been made by people who know nothing about what works in elearning. The result is elearning junk”.

Faculty

Three out of three faculty provided recommendations for future similar projects. No faculty made any recommendations in terms of training and professional development. Thirty three percent said a solidified design process was needed up front, they stated that “between the time I was engaged for the project, the training, and the first content deadline, the schedule and documentation requirements changed several times”; thirty three percent said transparency and guidance is needed to understand who to contact for design issues; and thirty three percent wanted better control of the quality of product that was being produced.

Others

One out of two others provided recommendations for future similar projects, while one did not provide any recommendations. The others comment was that the proper design positions be put into place right from the beginning, and that *“preplanning(sic) is critical to ensure that the projects for online courses are completed on time, and meet quality standards and expectations”*.

Survey Results Summary

Responses to each of the survey questions varied between each job classification. Several common themes arose during the examination of the survey data. Administrators responses that pertained to course pedagogy and the design process were by far the most prominent, also making note many times about quality assurance and the need for professional development. Support staff were also very concerned with the design process, proper training,

quality assurance and pedagogy. Faculty responses were varied as well; however, they more than all the other job categories made comments regarding proper staffing. The others job classification was most concerned with quality assurance, followed closely by pedagogy and course design process.

Chapter 5: Discussion and Conclusion

The findings from this research may inform governments, educational institutions, and private sector online course developers about the influence that targeted government funding has had on online course development. A thematic analysis of the quantitative and qualitative data identified individuals' experiences in online course development, lessons learned throughout the development process, and recommendations offered for future programs similar to the SOCF. This chapter offers a discussion of the findings and responses to the research questions.

Discussion

The survey questions posed to the participants in this research attempted to accomplish four things: (1) sort the respondents into employment positions at their respective colleges; (2) attempt to address the main research and sub-questions from the qualitative questioning in the survey; (3) draw out responses that can be viewed through the lens' of the theoretical frameworks mentioned in this research; and (4) provide recommendations for future funding and research into this topic. Five common themes emerged from a detailed thematic analysis of the data from questions 3-12, they were: (1) pedagogy and process; (2) timelines; (3) staffing; (4) training and professional development; and (5) quality assurance. These five themes were

applied to each question within each job category and the percentage breakdowns are noted in appendices B – E.

The data will initially be analyzed according to the research question (or sub-question) and category. Further analysis will be completed according to employment position and alignment, or lack thereof, with the theoretical frameworks.

Research questions

Internal capacity

The first sub-question asked *did the Shared Online Course Fund change an institution's internal capacity to develop online courses? And if so, in what ways?* The responses that addressed this inquiry were varied and plentiful as information gathered to address this came from almost all of the survey questions that were posed. Although individual responses varied, all of the employment categories mentioned in their responses that there was a positive effect on their institution's ability to develop online courses internally. Several comments directly connected the SOCF with increased internal capacity in areas of online course development. The most common comments were in the areas of technology, quality assurance, and instructional design relating to the online course development process.

Internal capacity to improve technology was mentioned both in terms of software purchased and better training and understanding of how to properly use it to develop online courses. The general consensus was that the institution's technological capabilities were improved directly due to the funding, and the employees benefited in terms of having new and improved software to design with and also professional development opportunities to expand

their knowledge of how to properly use these technologies effectively and efficiently. Some respondents felt that although more technologies to develop online courses were available, there was not much thought given to instructional design strategies to properly implement these technologies. They felt an over-reliance on new technology put before pedagogy was a dangerous precedent that may ultimately lead to poorly designed courses.

There were many mentions of quality assurance and the ability to grow its capacity internally that were found throughout all of the survey questions. Most of the comments were related to the implementation of Quality Matters© as aligning the course development to its standards was a requirement of the SOCF (OntarioLearn, 2016). All of the respondents that mentioned Quality Matters© observed that it increased the institutions capacity to develop online courses. They identified Quality Matters© as a pivotal component in their ability to vastly improve both course quality and production efficiency.

Improvements in instructional design capacity, or lack thereof, was a frequent response and many comments were made that touted the improvement in internal pedagogical understanding of the online course development process. The collaboration with other institutions led to the sharing and adoption of best practices which in turn increased the extent to which pedagogical improvements were made. Efficiencies were gained through experiential practice in the increased number of courses that the institution was able to develop, and these efficiencies served as both learning experiences for those involved in the course development process, and led to increased production capacity to design online courses both through the SOCF and courses external to it. Several respondents noted; however, that there was at times an utter disregard for instructional design procedures as managers whom were leading did not

understand the processes that were needed to properly design an online course. Some felt the push to develop the courses on-time in order to receive the funding superseded the importance of creating a quality course. It was also noted that development of courses was “*dumbed down*” to ensure student success in the online course environment, meaning that proper academic rigour in the course design and content may have been overlooked at times.

Upon viewing this sub-research question through the lens of the social constructivism theoretical framework, the major insight was that many respondents felt that learning by doing, and collaboration with others from within their institution and from outside allowed them to gain a different perspective on the online course development process based on the shared experiences of the entire development team. Many touted the sharing of ideas and resources as a top takeaway from the SOCF. Investigating this data through the additional lens of program theory resulted in the observation that the internal capacity to develop online courses was improved; however, things did not go as initially planned. Several respondents commented on instances of a lack of understanding at the outset in the instructional design and course development process. It was noted that while the final overarching outcomes of the SOCF were met, the plan was altered and expectations changed as the project went forward.

Challenges, lessons learned, and best practices

The second sub-question asked *What were some of the challenges that were encountered, lessons learned and best practices identified after the development of Shared Online Course Fund online courses?* There were several comments on this question as well, although most of the pertinent responses come from the second last survey question that asked the participants specifically what challenges they encountered during the development of courses through the

SOCF. The challenges varied between individual respondents and analyzation of the data

produced a wide range of issues that touched on all the theme mentioned in chapter four. It was clear that staffing was a major issue, not just hiring the proper qualified individuals to complete the project, but also and more importantly, staff at all levels needed to be brought on board early and trained properly in the online course design process. Several instances appeared in the data that indicated managers, faculty, and course designers at times either did not properly understand instructional design principles, or they were ignored in order to appease a schedule. More than once in the data comments alluded to the fact that *“as an ID, I found my contributions mattered less and less as time went on”*, indicating that as the timeline to complete the project came to a close, the quality of the design process was ignored. Other challenges also occurred during the design process with respect to instructional design and pedagogy, namely that *“shiny new technology”* and *“mclearning nuggets”* were added to courses seemingly at random with no thought given to whether or not adding these technologies and software would add to the overall learning experience. Another challenge often mentioned was that of having to collaborate with other colleges that offered similar courses as was stipulated in the SOCF request for proposals (OntarioLearn, 2016). There were problems with; which college was leading; who to report to while collaborating; who was responsible for course consistency; and who would look after course maintenance after in the future. All of these concerns possibly point to either a problem with the guidelines provided by the SOCF or a lack of leadership from within the institution. The challenge of getting the courses completed in the relatively tight timeline provided seems to be an overarching theme that, if addressed, could alleviate many of the challenges noted above.

It is worth noting that twenty five percent of respondents noted that they experienced no challenges during development of courses under the SOCF.

There were few responses that related directly to lessons learned from being involved in the SOCF; however, threaded throughout many responses were observations on experiences during course development and some valuable analysis into what respondents felt they learned from this program. A common observation identified by many of the respondents was that they felt proper processes were not in place prior to the undertaking of the online course development through the SOCF. Many noted that if they were to go through this again they would ensure that there was a clear plan identified at the outset and that all stakeholders would be involved from the beginning. Included in this plan should be clear expectations of how team members are to communicate both internally and externally with partner colleges. Another lesson often mentioned was making sure that you have the proper roles filled with competent employees prior to embarking in such a project. Ensuring that there is knowledgeable staff in the areas of project management, copyright, AODA, instructional design, quality assurance, and technological specialists will ensure that you can hit the ground running and provide ample time to properly develop an online course. Reflection and feedback, or lack thereof, was also mentioned as an important element moving forward for either internal online course design or as a consideration for future similar funding programs. Either time was not allocated for, or it ran short to allow team members in all capacities of the online course development process to properly review and reflect on their product before its implementation. Reflection was also an issue between successive rounds of funding, some felt that they were rushed out and not enough time was allowed to tweak the funding formulas before successive rounds were sent out.

Similar to the responses pertinent to lessons learned from the SOCF, few responses directly identified best practices gleaned from the program. Upon analyzing the data; however, some common best practices were noted in the participants responses. Several respondents observed that as they continued to work on this project with their partner colleges, there was an increase in the sharing of best practices amongst collaborators. Adopting the practices of collaborating colleges allowed those involved to incorporate tested practices into their online course development and gave them the opportunity to not have to spend the time it would take to develop these practices on their own. Suggestions that utilizing best practices developed by industry outside of education was also noted, to the point that college online course developers did not properly employ this resource and incorporate it into their design, a missed opportunity as it were. Along with obtaining best practices from partners in the project, they were also developed internally as each institution was granted the opportunity to develop more courses than they would have normally been able to do because of the funding dollars. By being able to develop more courses, best practices were developed through professional development opportunities and simple trial and error that comes with more developing experience.

In observing the data in terms of challenges, best practices, and lessons learned in the lens of program theory, it was believed by most respondents that at the outset of the online course development under the SOCF, there was a rough project plan to guide how the money would be allocated, how the development schedule would proceed, and how the courses were to be collaboratively developed. It was also noted by many respondents; however, that the plan they had set out was not fully developed and could not adapt as courses were being developed due to lack of experience at all levels of course development. Inexperience in administration,

instructional design, and technological know-how were all cited as reasons that the development of the online courses faltered and in many cases, did not ultimately achieve the desired results. One aspect that achieved and indeed exceeded the expected program results was quality assurance. While a few felt that it was overlooked in favour of maintaining a schedule, most felt that the adoption of Quality Matters© as an online quality assurance instrument allowed for better development of not only courses developed within the SOCF, but also improved internal best practices in developing online courses. With regards to social constructivism, the interpretation of the data clearly indicated that a great deal of best practices were adopted directly due to both interdepartmental collaboration and connecting with external partners. The varying level of experiences, both work and life, within the team allowed individuals to expand their own personal learning while sharing their knowledge with others. Challenges were also linked to close collaboration with others both internal and external as there were personality clashes between those who were set in their ways and did not want to follow the online course development process. There was friction between individuals who did not buy in to a collaborative approach and did not want to take advantage of the team's shared knowledge and experience.

Influence of the Shared Online Course fund

The main research question for this study asked *What has been the influence of the Shared Online Course Fund on online course and program development at three specific publicly funded Ontario colleges?* Almost every response, or non-response, that was provided from the participants provided insight into the influence that the funding had on online course development. Approximately two-thirds of the responses shed a positive light on the program as

a whole and provided many examples of how the funding influenced their institutions and themselves as individuals. Improvements in quality assurance, adoption of best practices, increased funding for new technologies, and improved access to professional development allowed institutions and many individuals to become more efficient in developing online courses. The exposure to more courses to develop due to the funding enabled confidence and proficiency by providing experiential learning to many who had not been previously exposed to that level of online course development. In terms of achieving the original SOCF objectives, many of the responses indicate that scalable online courses of indeed were developed and in most instances, they were of higher quality than courses that were previously developed within their respective institutions (Government of Ontario: Ministry of Training, Colleges, and Universities, 2013).

Challenges were also noted in regard to the influence that the funding had on the individual and the institution. There were concerns that, if anything, the funding disrupted the processes the institution already had in place due to the fact that the development timelines were so aggressive. Programs and courses had to be developed so quickly that in some cases established processes that included quality assurance and course review were put aside in order to ensure courses could be completed on time and funding would be received. Staffing was also affected by tight timelines as in some cases individuals were not competent to perform their required tasks either due to lack of experience at the outset or the inability to get proper professional development in a timely manner. A few respondents also noted that at times pedagogical rigour and instructional design principles were ignored either to achieve the required schedule or because those in charge had a lack of experience with proper online course design.

It is worth noting that for several of the survey questions that asked if an improvement was observed in overall capacity in the areas of; knowledge; skills; technology; processes; and quality assurance; the participants provided a simple *no* as an answer indicating that there was no improvement. Factoring these no answers into the analysis, along with the responses that pointed out negative aspects of the program (although the survey questions specifically asked if they noted an improvement in overall capacity, some used these response areas as an opportunity to provide a negative response or a challenge), the ratio of those who noted an improvement to those who did not was closer to a 50/50 split across these questions. This indicates that half of the respondents felt that there was no improvement as a result of the funding and while this may seem like a high percentage, still close to fifty percent felt that an improvement was made in some way as a direct result of the funding.

The online course development process was often cited as an area that either needed improvement moving forward, or improved due to access to funding; however, all but one of the respondents felt that the initial plan set out by the online course design teams experienced either a positive effect from the funding or experience was gained in project management that would benefit them in the future. Although the development process did not proceed as expected from the program that was set out, the SOCF enabled team members to learn from this moving forward. Many comments were made from participants across all job categories that observed that collaboration with others from within their institution and from their partner colleges that they were influenced by the perspectives and experiences of other individuals. Many best practices were adopted and applied to their own course development processes as a result of this.

Employment category analysis

This study did not receive its planned participation from three colleges and had very limited responses from one of the participating colleges so it did not make sense to undertake a case study analysis based on which college you were employed at. There was enough data to explore how respondents felt within each job category to compare their experiences developing online courses under the SOCF.

Administrators

As mentioned previously, administrators' responses overwhelmingly fell into the theme of pedagogy and process, followed by training and professional development, quality assurance, staffing, and then timelines, which appeared to hardly be a factor for them. As administration is charged with ensuring setting out the project plan and ensuring it gets followed properly it makes sense that process is top of mind. Concerns about pedagogy also should be a concern for not only administrators, but for all job categories, and as such, the amount of responses that fell into this theme stand to reason. Administrators noted that professional development dollars that were available through the funding were well utilized, specifically mentioning Quality Matters© in several instances. Timelines were all but ignored in the responses from administration, with the exception of noting that they were too aggressive. As administration would be setting the project schedule it is unclear why this was not a more prominent theme for them. Overall administrators felt that there was a positive influence from the funding and it helped build capacity to develop more courses in the future.

Support staff

Support staff had the same order in which their responses fell into each theme; however, the pedagogy and process and training and professional development themes were much closer. There were more concerns from support staff in terms of pedagogical processes and following instructional design principles. As instructional designers were included in the support staff job category, this makes sense. Some support staff felt that their contributions mattered less and less as the project neared completion and that their contributions were ignored. The data indicated that this may have been a result of a lack of understanding in the design process and personality challenges from fellow team members. Support staff also felt that they benefited greatly from access to new technologies and expanded professional development opportunities. Again, many noted that having the ability to take Quality Matters© training improved their understanding of online course design and advanced them professionally.

Faculty

Faculty responses were evenly spread across the themes of pedagogy and process, staffing, training and professional development, and quality assurance with little concern for timelines. Of all the job categories, faculty observed the least improvement and influence in terms of increasing the capacity within the college. Their concerns lie mainly with the ongoing changing of processes to develop the courses, lack of direction and planning, and proper staffing. They felt that more time should have been spent upfront in ensuring that a proper project plan had been solidified that included hiring fully competent staff, or shy of that ensuring that staff was properly trained to develop these courses. Out of all the job categories, the faculty were also

most concerned with the maintenance of the courses in the future as they will be the ones that potentially deliver these courses online. Valid observations were made regarding the complications that will arise in altering a course in the future and ensuring that it remains consistent across several partner colleges.

Others

The others category had two respondents; however, one of them provided a *no* answer to all questions. The other respondent was most concerned with quality assurance and professional development. They were appreciative of the opportunity to receive Quality Matters© training and noted that their skills have grown greatly in using technologies to develop online courses. They felt that ensuring proper processes were in place was critical to the development of online courses. Overall the others felt that the SOCF had a positive influence on online course development.

Theoretical framework conclusion

In terms viewing the data through the theoretical frameworks, the data provided by the participants provided a rich illustration of their perception of how the program progressed. The selection of program theory as a theoretical framework proved valuable in considering if the intended program outcomes of the SOCF were in fact achieved; many were but not all of them. The SOCF was successful in its attempt to have institutions collaborate on course development thereby increasing the access to various online courses throughout the province. It also provided participating institutions and their employees many more professional development opportunities through formal training and sharing of best practices. Where it fell short was in the feedback and analysis of the courses developed and the success, or lack thereof, of subsequent rounds of

funding. As a result of this it was noted by many respondents that they felt there was a lack of oversight in ensuring that proper instructional design techniques were followed as was intended by the SOCF program. The lens offered by the social constructivist theoretical framework allowed me to interpret the data provided by participants within the context of the positions they occupied and the knowledge and experiences upon which their expectations for the SOCF may have been built.

Many individuals made assumptions based on the programs expectations, and these did not always align with the thinking of others on their team. Individuals made interpretations based on their past experiences (or lack thereof) with online course development. Although these interpretations sometimes caused friction between team members as a result of many differing points of view, participants felt that collaboration with other team members from within their institution and from collaborating institutions ultimately allowed for the sharing of work experiences, best practices, and pedagogical and technological knowhow. For these reasons, I believe that Program Theory and Social Constructivism were appropriate choices as theoretical frameworks.

The SOCF generally helped the colleges that were surveyed as approximately fifty percent of participants felt that there was a noted improvement as a result of the SOCF, and although this means that half of the respondents noted no improvement, it still implies that there was an observable benefit as a result of this government funding, and that government funding generally has a positive influence on online course design.

Recommendations

The intention of this research was to determine the influence that government funding has on online course development, and as such there was an attempt to survey individuals at three colleges in various positions that supported online course development through the SOCF and perform a separate case study of these three colleges. Although 20 individuals were able to be surveyed in a variety of positions, there were some issues that arose during data collection. The first complication was that college X was not able to compile a list of employees involved in developing online courses under the SOCF in a timely fashion and therefore had to be excluded from the research. The other complication was of the remaining two colleges who participated in the survey, only three respondents were from Algonquin college. Upon reflecting on this fact, it made more sense to perform an analysis based on job categorizations, not the colleges. These challenges notwithstanding, given the paucity of research in this area, a substantial amount of valuable data was gathered to assist in attempting to answer the research questions.

Several recommendations became evident as the data was analyzed in terms of future government funding programs like the SOCF and possible future research into this subject area. Each recommendation is targeted at future government fund providers, institutions, post-secondary employees involved in online course development, future research, or a combination of these.

Recommendation 1: Establish reflection and feedback processes.

Ensure program evaluation is part of the program plan. A program should be sure to allow proper time to not only complete the courses, but time for reflection and feedback. Reflection should come not only from the college personnel, but also from the government

funding agent on how to better distribute future funding programs. This recommendation is targeted at future government fund providers.

Recommendation 2: Ensure proper managerial supervision is in place.

Ensure each participating institution has assigned the overall responsibility for the implementation of the funding program to a senior leader. Within the college, a higher level of managerial supervision is recommended to ensure projects not only are completed on time but follow proper online course design processes and instructional design techniques. This recommendation is targeted at institutions and post-secondary employees involved in online course development.

Recommendation 3: Establish proper training.

Proper training should be a component of an overarching project management plan that is clearly set out at the beginning of the project. If there is an expectation for a common online design and development component, such as instituting Quality Matters© in the courses developed under the SOCF, this should be clearly laid out in the request for proposal, and then implemented across the board amongst all collaborators. This recommendation is targeted at future government fund providers, institutions and post-secondary employees involved in online course development.

Recommendation 4: Lay out collaborative relationship expectations.

If it is a collaborative environment between two or more institutions, thought must be given on the front end of the project as to how that relationship will operate, spelling out responsibilities and a chain of command and responsibilities of staff for all those involved. This

recommendation is targeted at institutions and post-secondary employees involved in online course development.

Recommendation 5: Provide a plan for course maintenance.

At the end of the project, a plan must be in place to ensure that course maintenance is completed in a timely manner and consistently across all partners. This recommendation is targeted at future government fund providers, and institutions.

Recommendation 6: Use research proven instructional design techniques.

Ensure that research proven instructional design principles are followed during online course design. As noted in this paper, there were several concerning comments that pointed to a disregard of instructional design principles. Strict adherence with program timelines or budget should not supersede proper course development. This recommendation is targeted at future government fund providers, institutions, and post-secondary employees involved in online course development.

Recommendation 7: Increase sample size for future research.

For future research, include a larger sample of institutions in order to provide a more accurate portrait of the thoughts and opinions of those involved in online course development.

Recommendation 8: Incorporate universities into future research.

For future research, if applicable, incorporate universities into the study as it would add another element of higher education that is not covered in this research.

Recommendation 9: Incorporate research into future funding models.

If programs like the SOCF are offered in the future, having research attached to each round of funding would provide a timely representation of that funding model and have insight into successes and challenges of the funding and recommendations could be drawn relatively quickly to improve future programs. This recommendation is targeted at future government fund providers and future research.

Recommendation 10: Consider the application of open educational resources.

If programs like the SOCF are offered in the future, ensure that the courses developed are not proprietary to any institution(s). The integration of open educational resources into the course design will save costs for students and allow for better access for learners.

Appendix A

**The Influence of Government Funding on Post-Secondary Online Course Development: A
help or a hindrance?**

*This survey is part of a thesis for a Master of Learning and Technology for Royal Roads
University.*

*My name is Steve Minten, and you are invited to participate in the attached survey for my
research project, The Influence of Government Funding on Post-Secondary Online Course
Development: A help or a hindrance? I am a student in the School of Education and Technology
at Royal Roads University.*

*The purpose of my research is to determine the influence of the Shared Online Course Fund on
online course and program development at three specific publicly funded Ontario colleges. You
may verify the authenticity of this project by contacting:*

Tamara Leary, EdD

School Director, Associate Professor

School of Education and Technology

Royal Roads University

Tamara.Leary@royalroads.ca

250.391.2600 ext 4587

*The survey is expected to take 20 minutes to complete. The questions will refer to individual
experiences in developing online courses funded through the Shared Online Course Fund. The
survey will be administered at Algonquin, Lambton, and Seneca colleges. The primary*

GOVERNMENT FUNDING INFLUENCE ON ONLINE COURSE DEVELOPMENT AT
TWO ONTARIO COLLEGES

82

researcher is employed at Lambton college; however, is not a subordinate, superior, in the same department and has no influence over those involved in online course development. The final report will be submitted to Royal Roads University in partial fulfillment for a Master of Arts in Learning and Technology. In addition to this, the research results will be published in public outlets, including a thesis that will be published in RRU's Digital Archive, Pro-Quest and Library and Archives Canada. The results might also be disseminated at public and academic conferences and presentations. It is intended that the data gathered from this research will contribute to the overall knowledge base in regards to government funding in online course development.

This research is considered low risk and I do not foresee any potential risks to the participants involved as the surveys are anonymous.

The survey will be administered through LimeSurvey © and data will be stored on Canadian servers. The results will be summarized, in anonymous format, in the final report. Your comments will remain anonymous. All documentation will be kept strictly confidential.

The data gathered will be retained for 3 years beyond defending my thesis and will be stored digitally on a password protected computer. The password is known only to the primary researcher. After the three year period the data will be destroyed

GOVERNMENT FUNDING INFLUENCE ON ONLINE COURSE DEVELOPMENT AT
TWO ONTARIO COLLEGES

83

Your participation is completely voluntary. If you do choose to participate, you are free to withdraw your survey data at any time by exiting or closing the survey; however, once the survey has been submitted, the data will become part of the anonymized dataset and will not be able to be removed from the study. If you choose not to participate in this research project, this information will be maintained in confidence. If you have any questions prior to participating, please contact me by email (steve.minten@royalroads.ca).

This research project has been approved by the Royal Roads University, Algonquin College (REBadmin@algonquincollege.com), Lambton College (reb@lambtoncollege.ca), and Seneca College (reb@senecacollege.ca) Research Ethics Boards. If you have any questions regarding your rights as a research participant, please contact the ethics office at ethicalreview@royalroads.ca; 1-250-391-2600 ext. 4425.

By completing and submitting the survey, you are indicating your consent to participate.

There are 7 questions in this survey. (*Denotes question with a mandatory response)

Classifying

Were you involved in the development of any Shared Online Course Fund courses? *

Choose one of the following answers

Please choose **only one** of the following:

- Yes

GOVERNMENT FUNDING INFLUENCE ON ONLINE COURSE DEVELOPMENT AT TWO ONTARIO COLLEGES

84

- No

In 2013 the Ontario provincial government launched the Shared Online Course Fund, to promote and expedite the development of online courses and programs in publicly funded Ontario post-secondary institution.

The final round of the Shared Online Course Fund was available during the 2015-16 fiscal year.

Which institution were you employed at while you worked on developing online courses through the Shared Online Course Fund? *

Choose one of the following answers

Please choose **only one** of the following:

- Algonquin College
- Lambton College
- College X**

What was your job title while working on the Shared Online Course Fund? *

Choose one of the following answers

Please choose **only one** of the following:

- Administration (Manager, Project Manager)
- Support (Course Developer, Copyright/AODA, Tech Specialist, Instructional Designer)
- Faculty
- Other

requested that they not be identified in the thesis)

Lesson Learned/Best Practices

In your time working on online courses that were funded through the Shared Online Course fund, did you experience changes at your institution in any of the following ways:

Comment only when you choose an answer.

Please choose all that apply and provide a comment:

- Changes in online course development processes. (If yes, describe)
- Changes in collaboration among those involved in the project within your institution. (If yes, describe)
- Changes in collaboration among those involved in the project from other institutions. (If yes, describe)

In your time working on online courses that were funded through the Shared Online Course fund, did you experience improvement in overall capacity; in terms of:

Comment only when you choose an answer.

Please choose all that apply and provide a comment:

- Knowledge (If yes, describe)
- Skills (If yes, describe)
- Technologies (if yes, describe)
- Processes (if yes, describe)

- Quality Assurance (if yes, describe)

What types of challenges did you encounter?

Please write your answer here:

Future Research

What recommendations would you make to others in future similar projects?

Please write your answer here:

Thank you for your participation!

Appendix B

Percentage of Administrators Who Provided a Response Pertaining to Each Category for Questions 3-12.

Pedagogy and Process									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
50	67	83	17	17	33	50	33	33	67
Timelines									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
0	0	0	0	0	0	17	17	50	0
Staffing									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
17	67	0	0	33	0	17	0	33	17
Training and Professional Development									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
33	0	17	33	33	83	0	17	0	0
Quality Assurance									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
0	0	17	17	17	17	0	50	50	17

Appendix C

*Percentage of Support Staff Who Provided a Response Pertaining to Each Category for
Questions 3-12*

Pedagogy and Process									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
56	11	33	22	11	0	67	0	33	56
Timelines									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
0	0	0	0	0	0	11	0	0	0
Staffing									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
22	22	0	0	11	0	0	0	22	44
Training and Professional Development									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
0	22	0	11	44	56	11	22	0	11
Quality Assurance									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
11	0	0	11	0	0	0	44	11	22

Appendix D

Percentage of Faculty Who Provided a Response Pertaining to Each Category for Questions 3-12

Pedagogy and Process									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
67	0	0	0	0	0	0	0	100	100
Timelines									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
0	0	0	0	0	0	0	0	33	0
Staffing									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
0	33	0	0	0	0	0	0	67	67
Training and Professional Development									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
0	0	0	33	0	0	0	0	0	0
Quality Assurance									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
0	0	0	33	0	0	33	0	0	0

Appendix E

Percentage of Others Who Provided a Response Pertaining to Each Category for Questions 3-12

Pedagogy and Process									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
0	0	50	50	0	0	50	50	50	0
Timelines									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
0	0	0	0	0	0	0	0	0	0
Staffing									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
0	50	0	0	0	0	0	0	50	50
Training and Professional Development									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
0	0	50	50	50	50	0	0	0	0
Quality Assurance									
Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
50	50	0	50	50	0	0	50	50	50

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