

**Blended Learning Instructional Development  
as a Catalyst for Change in  
Faculty Conceptions of Teaching and Course Design**

**By**

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## ABSTRACT

This multiple case study explored faculty perceived changes in conceptions of teaching and course design from participating in a program to help them redesign courses to implement blended learning using Mezirow's (2000) Transformative Learning as a hypothetical framework. Fifty-nine past program participants responded to a survey on their level of agreement as to whether they underwent perspective transformation. Then, six faculty members, three high scorers, meaning they perceived transformation, and three low scorers, meaning they didn't or did so to a lesser extent, were selected for interviews to provide further insight into the nature of their transformation or lack thereof.

The survey findings indicated that the vast majority (n=55; 93%) of respondents perceived changes in their conceptions. Some themes emerged from the analysis of the open-ended survey responses: what triggered their thoughts about teaching and course design, actual changes they made, using more active student learning, reinforcing existing practices, challenges to implement changes, negative reactions to redesigned course implementation, and positive program outcomes.

Moreover, the interview analysis revealed that of the three low scorers, one changed his conception in some ways but not in others, and the other two did not perceive changes. The changes they made related mostly to learning activities. However, all three still stated they valued their participation in the program, reporting that the program helped them reinforce their practices, encouraged them to revise and improve their courses, stimulated them to use more technology, suggested a second level of the program where participants could get help in implementing their designs. On the other hand, the three high scorers were not familiar with program content and transformed their practice toward more active learning, student-centered

approaches, making significant changes to their courses in the learning objectives, activities, assignments, assessment, and course evaluation. All faculty valued their participation in the program and recommended it to colleagues.

Furthermore, the interview findings revealed that the types of changes participants underwent were not transformative in the sense of Mezirow's (2000) Transformative Learning theory. Alternatively, they met the conditions of Feldman's (2000) Practical Conceptual Change model.



## CHAPTER 1 – INTRODUCTION

### Background of the Problem

The higher education sector is widely recognized as vital to the economy, the labor force, and for its role in educating citizens. There is a wide sentiment that colleges and universities exist for the public good and betterment of society. Despite that sentiment, the sector has seen pressures from a variety of stakeholders, including lawmakers, the government, accrediting organizations, students, their parents, taxpayers, and the society at large, who call for more efficient institutions, more accountability, more affordability, more integration between academia and society, and undergraduate programs that are more relevant to the realities of today's society (Kellogg Commission, 2000; King, 2002; Mettler, 2014; Schuster & Finkelstein, 2006) in order educate more young people and adults so that they will have the knowledge and skills that are more in line with the new literacies, empowering higher-order thinking for inquiry and problem solving, social skills through effective communication and collaboration, and technological skills to prepare the professionals of tomorrow to the uncertain challenges ahead (diSessa, 2000; New London Group, 1996; Partnership for 21st Century Skills, 2008).

In addition, colleges and universities have also seen growing expectations and dramatic cuts in state budgets and federal grants, leading to a decrease in the resources available. Besides those pressures and expectations, higher education has also experienced a great deal of changes such as the expansion of the sector itself, the composition of the student population and its staff, advances in technology in software and hardware, the surge of online degree-granting institutions, and the growth of competition from for-profit colleges and universities, just to name a few, forcing higher education faculty, staff, and administrators to find responses and adapt to these changes (Allen & Seaman, 2014; Anderson, Boyles, & Rainie, 2012; Bowers, 2000;

Cuban, 2001; Mettler, 2014; Millis, 1994; National Center for Public Policy and Higher Education, 2008; U.S. Department of Education, 2010).

In this scenario of mounting pressures, growing expectations and reduced budgets in higher education, administrators have tried to address some of these issues and have looked for ways in which colleges and universities become more efficient, by attempting to reduce costs, trying to make more meaningful connections with society, and seeking to make undergraduate education more relevant to the job market. A common alternative that has been under their radar includes offering course and programs in non-traditional formats such as online and blended learning.

Almost ten years ago, a survey study on the future of online teaching and learning in higher education inquired about the expected growth of blended learning. The survey responses revealed that faculty members estimated “the vast majority of courses having some Web component” (Kim & Bonk, 2006, p. 26) by 2013, even though the study broadly referred to blended learning as “instruction that combines face-to-face with online offerings” (p. 25) and categorized blended learning merely in terms of the amount of student learning time that is related to the blended portion of the course.

Along the same lines, results from a recent survey revealed that the number of college students in the U.S. who took at least one online course grew almost 400% in just over 10 years from 1.5 million in 2002 to 7.1 million in 2013, which in that year represented 33.5% of all college students in the U.S. (Allen & Seaman, 2014). Similarly, Carter (2008) reported that the percentage of college students taking online courses grew almost 150% in just 6 years jumping from 9% in 2002 to 22% in 2008. In addition, in their report, *Future of Higher Education*, the PEW Research Center revealed that colleges and universities are investing in blended learning

and that many experts in the field predict that there will be an increasing movement towards blended courses (Anderson, Boyles, & Rainie, 2012).

The move towards offering more blended courses, indicated by PEW Research Center, could be attributed in part to the fact that proponents of blended learning claim that it has the potential to bring “the best of both worlds” (Moskal, Dziuban, & Hartman, 2013, p. 20): face-to-face and online education. Students may complete the online components at their convenience while not having to complain about the complete lack of face-to-face contact with their instructor, which is the case in a fully online course. Faculty may gradually become familiar with pedagogical strategies for blended learning, technological tools, and resources while still maintaining some face-to-face time with their students. Colleges and universities may blend to make better use of their facilities, reducing the use of precious classroom space when most institutions see an increase in enrollment (Moskal, Dziuban, & Hartman, 2013).

Besides, a meta-analysis by the U.S. Department of Education (2010) found statistically significant differences between the three delivery modalities: blended, online, and face-to-face. The study reported that students in online courses performed slightly better than those in face-to-face courses and that students in blended courses performed the best. In this context, one of the main promises of blended learning, proponents say, is that it should strive to foster deeper, active learning while giving students more flexibility (Vaughan, 2010). Such initiatives should take advantage of the opportunity to redesign a course and rethink how courses should be designed, developed, delivered, and facilitated (Bleed, 2001) and also reconsider how to assess students and evaluate the blended learning experience at all levels.

In fact, with all the challenges and opportunities that such an endeavor might bring, it has been suggested that blended learning can be “both simple and complex” (Garrison & Kanuka,

2004, p. 96). The simplest form would mean a simple replication of traditional teaching practices to a blended learning type of structure. In its complex form, blended learning would entail careful planning toward a deeper, more student-centered, active learning approach at all levels, including faculty, students, the course, the program, the department, the school, support services, and the institution as a whole.

There have been numerous accounts of the benefits of successful blended learning implementations for students, faculty, and the institution (e.g., Moskal, Dziuban, & Hartman, 2013; Porter, Graham, Spring, & Welch, 2014; Vaughan, 2010; Wicks, Craft, Mason, Gritter, and Bolding, 2015). However, these benefits are only attained when the process of blending is taken thoughtfully and carefully, involving purposeful instructional design and a well-planned integration of technology-mediated and traditional face-to-face education (Garrison & Kanuka, 2004). In addition, blended learning presents an opportunity to reconceptualize teaching and learning in addition to creating more effectiveness, convenience, and efficiency (Vaughan, 2010).

### **Statement of the Problem**

As many institutions of higher education move towards offering more courses and programs in blended and online formats while trying to address mounting pressures, growing expectations, and reduced budgets, they face the reality that many faculty are reluctant to teach in a different delivery modality as most are not prepared to teach in such environments. In fact, some researchers have raised the issue that faculty are not adequately prepared to teach, lacking knowledge and skills on pedagogy, learning theories, course design and assessment (e.g., Austin and Barnes, 2005; Gaff & Simpson, 1994; Halpern & Hakel, 2003; Lawler & King, 2001; Millis, 1994; Nicholls, 2001). This is due in part to the fact that higher education faculty do not

receive proper instructional training while they pursue their graduate degrees or when they are hired to become professors. They come out of their graduate programs fully prepared to conduct high quality research but without satisfactory teaching preparation.

In addition, faculty many times see themselves faced with new realities in teaching such as pressures to shift to the online or blended environment. When faced with these challenges, faculty have expressed that they were more concerned about not having the pedagogical knowledge to teach online than about their lack of technological skills to do so (Kim & Bonk, 2006). There is also a perception among faculty themselves that the learning outcomes in online environments are inferior to those in face-to-face settings (Allen & Seaman, 2011). It is often the case that courses on either end of the spectrum, entirely face-to-face or fully online, present more stable ground for both faculty and the institution.

Therefore, faculty development efforts play an essential role in the preparation, planning, design, and implementation of blended initiatives. When redesigning a course for blended learning, the process to redesign a course into the new delivery modality may result in an advantage over traditional ones (U.S. Department of Education, 2010). In fact, a redesign with the objective to blend some portions of a course may offer an opportunity for improvement in teaching practices and also in student learning when such courses go through the process of redesigning the learning experience. Graham (2006) proposed a characterization of types of blended learning: enabling blends – environments that increase access; enhancing blends – models that show an improvement in pedagogy and learning environments; and transforming blends – ones that foster fundamental paradigm shifts in pedagogy.

In order to redesign their courses with a transforming blend model in mind to shift the pedagogy to a more student-centered approach, faculty need opportunities for instructional

development and support. In fact, Joosten, Barth, Harness, and Weber (2014) warned that “[i]nstructional and faculty development provide the core foundation to institutional programming in providing a framework for implementing blended learning pedagogy in the classroom” (p. 173). And since we have seen a growth in the number of courses offered in a blended learning modality, opportunities for instructional development to redesign and teach blended courses become even more important, particularly if those courses are to fulfill the promises of blended learning briefly mentioned above.

Furthermore, it is imperative that institutions provide faculty with adequate and appropriate instructional development opportunities, otherwise they will likely not embrace blended learning completely and therefore miss out on taking advantage of its many affordances and will instead try to reproduce their original teaching approaches (Garrison & Vaughan, 2013). In addition, Garrison and Vaughan (2008) pointed out that one of the main barriers to the successful adoption of blended learning initiatives is the lack of appropriate professional development and support. McDonald (2014) also pointed out that “[i]nstitutions of higher education should provide training to instructors who have never participated in blended learning prior to their facilitation of a course” (p. 233) and complements by recommending further research to study how to promote faculty participation in blended learning and how to prepare faculty to teach blended learning courses. Hence the need for faculty professional development offerings to focus more on pedagogical strategies than on prescribing how to use technology tools.

### **Rationale for the Study**

With the topic of blended learning in higher education receiving a great deal of attention over the last few of years, we have seen studies focusing on institutional gains, student gains, and

faculty gains have dominated the literature. Although there have been some research that touch on the issue of faculty preparedness, we still don't see many publications that focus on faculty instructional development and training specifically for blended learning. And those that do speak to instructional development do not focus on faculty perspective of their transformation.

Nonetheless, Dziuban, Hartman, and Moskal (2004) submitted that the success of blended learning initiatives depends on “a planned and well-supported approach that includes a theory-based instructional model, high-quality faculty development, [and] course development assistance” (p. 3). In fact, the importance of faculty instructional development programs can not be undervalued as they are essential for the implementation and delivery of quality and effective blended learning initiatives (Joonsten et al., 2014). Therefore, faculty development programs should be designed to prepare faculty for what it takes to teach blended courses in order to create successful learning environments. Also, it is imperative that the institution provide resources and training to design and teach blended courses, and subsequently offer opportunities for faculty to teach different course formats (Skibba, 2014).

The blended learning literature on current academic practices is still deficient and this results in the lack of a foundation for professional development and support. As a matter of fact, a meta-analysis survey (Torrise-Steele & Drew, 2013) of the literature showed that most studies on blended learning fell on a “how-to” category and covered issues such as “context cases” and “course cases” (p. 373). The second main category, student focus, represented about a quarter of the articles surveyed and most of those were related to the student experience. The third category covered academics' practice with blended learning with a low 4.2% of the total of the articles surveyed. The survey study revealed that there needs to be a balance between technical skills training and pedagogical approaches in a variety of ways, including training sessions,

workshops, departmental forums, communities of practice, mentors, virtual collaboration, and technical support.

Another recent survey study (Ginsberg & Ciabocchi's, 2014) indicated that most higher education institutions that offer blended learning courses require or recommend their faculty to pursue training with most of these institutions providing internal training. Still, the general notion was, the survey implied, that institutions offered inadequate incentives and support for faculty development programs on blended learning. The study concluded proposing the following recommendations: provide incentives for faculty participation, make training a requirement, increase the number of qualified training staff, increase institutional support and funding, and improve the design of programs.

Many of the research studies on blended learning have focused on what Graham, Henrie, and Gibbons (2014) termed "surface features" (p. 27), without addressing key pedagogical attributes of the blended learning initiative. What's more, the authors recommended that research on blended learning go past surface features and explore "core pedagogical attributes" (p. 27) of the system and not its physical systems. In addition, the authors went on to say that the focus on physical attributes in blended learning research and models can shed light on some aspects such as access and cost, however, it falls short in exploring pedagogical attributes that may lead to an impact on learning outcomes (Graham, Henrie, & Gibbons, 2014). Such pedagogical attributes should be covered in programs that help faculty redesign their courses for blended learning.

In fact, Dziuban, Hartman, Moskal, and Robinson (2007) emphasized that designing or redesigning a course for blended or online learning is not a simple task but requires a "fundamental rethinking of objectives and instructional strategies" and "a shift in personal theories of teaching and instructional behaviors (new mental models) – becoming a 'coach'



rather than a ‘teacher’ – especially in environments that emphasize active student learning” (p. 271). In addition, Joosten, Barth, Harness, and Weber (2014) recommended that instructional development programs that focus on blended pedagogy can effectively facilitate instructors as they go through this pedagogical transformation and help them see the benefits that a blended learning environment may afford.

Since the process of redesigning courses for a blended learning format is relatively new, it is important to conduct research on this area to help build the literature, and disseminate research results and methods of good practice to inform other professionals and institutions undertaking similar endeavors (Vaughan, 2006). McDonald (2014) has also made that call, recommending further research to study “how to promote faculty participation in blended learning and how to prepare faculty to successfully facilitate blended courses” (p. 233).

Researchers at University of Central Florida, leading other 20 partner-institutions in a Next Generation Learning Challenge Grant funded by the Bill and Melinda Gates Foundation and the William and Flora Hewlett Foundation have collected a wealth of data on blended learning in what has probably been the largest data collection on the topic to date. However, their intensive research does explore the issue of faculty transformation as they go through training to redesign their courses. In fact, Moskal and Cavanagh (2014) lament that even though much data are available from their study such as the count of students, courses, and faculty, they were not able to capture “the depth of change faculty experienced due to the training”, mentioning that money and time constraints “did not allow for site visits or interviews, which may have provided valuable information as to exactly what transformations may have taken place” (p. 49).

### **Purpose of the Study**

The purpose of this study is to explore faculty perceived changes in their conceptions of teaching and course design from participating in a program to help them redesign their courses in order to implement blended learning through the lens of Mezirow's (1991, 2000, 2012) Transformative Learning theory as a hypothetical framework. Using a qualitative case study approach, I investigated the changes that faculty may go through in relation to their teaching and course design as they participate in the training program.

In this qualitative study, I investigated faculty perceived changes in their conceptions of teaching and course design as a result of their participation in a program to help them design or redesign their course in order to implement blended learning. This study builds on previous research that relates to faculty instructional development particular to blended learning. The literature in this area is still scarce and does not address the issue of changes of faculty conceptions of their teaching and course design when participating in training to design or redesign their courses for blended learning.

The intent of this study is to identify new phenomena and related theory concerning instructors' perceived changes in their conceptions of teaching and course design while designing or redesigning their courses to implement blended learning. It is also the intent of this study to be useful in giving recommendations on the design of instructional development programs for faculty to create blended learning courses.

### **Research Questions**

The following research questions guided my inquiry about identifying and understanding faculty perceived changes in their conceptions of teaching and course design as they participate in a program to design or redesign their course to implement blended learning. These questions served as a starting point into exploring the issues and themes in this investigation. As data

collection evolved, I was open to revising my research questions in order to further deepen my understanding of the issue. As Stake (2006) warned, “[c]ase study work is often said to be ‘progressively focused’; that is, the organizing concepts may change a little or a lot as they study moves along” (p. vi). In addition, through a constant comparison method, comments of individual participants as well as comments that are looked at collectively revealed emerging themes that further guided my inquiry.

The following are the key questions guiding this study:

1. What changes do faculty perceive in their conceptions of teaching and course design as they participate in a program to help them implement blended learning in their courses?
  - a. In what ways have faculty conceptions of teaching and course design changed as a result of participating in the program?

### **Theoretical Framework**

Increasing pressures from various constituencies are requiring faculty to be more effective, to do more with less, and also to be more responsive to the needs of the workforce and society. As mentioned above, many institutions are taking steps towards offering more online and blended learning courses and programs. The complexities of what influences teaching are exacerbated when we throw in new delivery formats. These forces generate a demand for educators to adapt to teaching in these new formats that encourage them to seek training in order to prepare themselves for this changing reality. When adults are faced with circumstances similar to this one, they may start to question their existing knowledge and change their actions, which may further result in perspective transformations. In this new context, faculty encounter challenges and opportunities that may change their conceptions of teaching.

In order to understand how the participation in a faculty instructional development program to redesign their course to implement blended learning might change faculty conceptions of teaching and course design, it is important to view faculty members as adult learners and explore their experiences in the training program, while considering the context in which they are. By studying individual faculty members who have gone through changes of conceptions of teaching and course design, as well as the factors that might impact these changes, we can gain a better understanding of how they change their conceptions which might later lead to changes in their teaching practice.

Pajares's work on this area (1992) defined belief, a term often used interchangeably with conception, as the "individual's judgment of the truth or falsity of a proposition, a judgment that can only be inferred from a collective understanding of what human beings say, intend, and do" (p. 316). Pajares proposed that beliefs are held at a deep, emotional, and illogical level and that changing them is not a simple process. He added that the deeper the belief is to someone, the more resistant to change it is. Pajares goes on to differentiate beliefs from perspectives, which, in his view, are reflective interpretations that form a basis for action and are more susceptible to change. Pajares also suggested that teachers' beliefs influence their judgments and therefore are reflected in their teaching practice. In addition, Pratt (1992) defined conceptions as "specific meanings attached to phenomena which then mediate our response to situations involving those phenomena" (p. 204). He added that conceptions are based in cultural, social, and personal meanings. Pratt also submitted that a teacher's beliefs, values, and intentions influence what it means to teach.

Since it seems that a change in teachers' beliefs or conceptions is essential to cause a change in teaching practice, it is important to gain more understanding of these changes in

beliefs and conceptions. In a similar way, in order to achieve the ultimate goals of a successful blended learning initiative, which is deeper student-learning that result from a change in teaching practice towards a more student-centered approach, we need to understand how these changes happen so that we can better structure faculty instructional development programs that promote a change in conceptions of teaching. To accomplish this goal, I used Mezirow's (1991, 2000, 2012) Transformative Learning theory, which provided a useful hypothetical framework for this study.

In more general lines, Mezirow saw learning as “the process of using a prior interpretation to construe a new or a revised interpretation of the meaning of one’s experience in order to guide future action” (Mezirow, 1996, p. 162). Further, Transformative Learning, as seen by Mezirow, is a cognitive, meaning-making process that may manifest in a change of an individual’s belief or attitude, or in an individual’s entire perspective. At the heart of this process is the individual’s life experiences from which he/she constructs meaning of the world through critical reflection and constant negotiation of perceived realities. Transformative Learning aligns with constructivism in that people construct meaning through their experiences with the world and validate that through their interaction with others. Therefore, meaning exists within people’s minds.

Mezirow (2000) defined Transformative Learning as:

the process by which we transform our taken-for-granted frames of reference (meaning perspectives, habits of mind, mind-sets) to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so that they may generate beliefs and opinions that will prove more true or justified to guide action. Transformative Learning involves participation in constructive discourse to use the experience of others to assess reasons justifying these assumptions, and making an action decision based on the resulting insight. (pp. 7-8)

For Mezirow (2012) a “frame of reference is a ‘meaning perspective’ – the structure of assumptions and expectations through which we filter sense impressions” and he explained that

frames of reference are “the results of ways of interpreting experience” (p. 82). Mezirow previously wrote on the roles of frames of reference proposing that they shape “what we learn and the way we learn it” (1991, p. 44).

In addition, for Mezirow, a frame of reference has two dimensions: “a habit of mind and resulting points of view. A habit of mind is a set of assumptions—broad, generalized, orienting predispositions that act as a filter for interpreting the meaning of experience” (p. 83). He also defined point of view as comprising “clusters of meaning schemes [...] that tacitly direct and shape a specific interpretation and determine how we judge, typify objects, and attribute causality” (pp. 83-84). He went on to clarify that a habit of mind is expressed as a point of view.

Mezirow (1991) defined perspective transformation as:

the process of becoming critically aware of how and why our assumptions have come to constrain the way we perceive, understand, and feel about our world; changing these structures of habitual expectation to make possible a more inclusive, discriminating, and integrative perspective; and finally, making choices or otherwise acting upon these new understandings. (p. 167)

Perspective transformation may result from a single life event like death, illness, divorce, etc., or it may happen over a period of time resulting from a book, discussion, class, etc. In other words, any event that confronts an established perspective can lead to transformation.

From his grounded theory study of women coming back to college, Mezirow (1991) inductively outlined 10 phases for perspective transformation: (1) a disorienting dilemma, (2) self-examination, (3) critical assessment of assumptions, (4) relating discontent to similar experiences of others, (5) exploration of options for new roles, relationships and actions, (6) planning a course of action, (7) acquisition of new knowledge and skill for course of action, (8) trying new roles, (9) building competence and self confidence in new roles, and (10) reintegration into society with new perspective. He further noted that transformation may involve some variation of the phases listed.

In this study as faculty participated in a program to help them design or redesign their course in order to implement blended learning, they may have faced new viewpoints on teaching and learning particularly as it relates to designing a course and teaching in a blended learning environment. Similarly, the way faculty members view, or their conceptions of, teaching and course design, is important because it eventually informs how they teach, i.e., whether they used a more teacher-centered or student-centered approach. These factors, in turn, are a reflection of the extent of change in their conceptions of teaching and course design, and the success of a blended learning initiative.

Therefore, it is the intent of this study that the findings provide further insight into blended learning training and how faculty may change their conceptions which may inform faculty developers, instructional designers, and administrators on good practices about faculty instructional development programs. It is also my hope, that this theoretical perspective will, at a minimum, offer a glimpse on faculty members' experiences in a training program for blended learning and how these experiences may impact their conceptions of course design and their teaching practice and ultimately further our understandings on how to promote changes of these conceptions.

### **Significance of the Study**

Studying faculty changes of their conceptions of teaching and course design, through a Transformative Learning (Mezirow, 1991, 2000, 2012) theoretical lens as a hypothetical framework, as they participate in training to help them design or redesign their course to implement blended learning is significant in several ways.

First, this study can inform how faculty may change their conceptions of teaching and course design as a result of their participation in a program to implement blended learning. The

findings of this study may offer insights on how the participation in training programs may lead to a change in faculty's conceptions of teaching and course design. These results can be useful for faculty developers and trainers, particularly as they relate to training to implement blended learning. In addition, the results may offer an understanding of how training may leverage the potential of course redesign for blended learning to promote student-centered active learning and suggest models for faculty development programs. Faculty who have undergone changes can provide useful insights on course redesign, on the teaching practice in a blended format, on their role and on students' roles, and on innovative ways of how students interact with themselves and the course activities, exploiting the full potentials of blended learning.

Second, by studying the changes of faculty conceptions of teaching and course design while they participate in training to implement blended learning, we can also gain more understanding on how blended learning may influence teaching and learning in higher education. Blended learning is starting to get more attention and therefore is building a more robust literature. However, there have not been many studies that focus on the aspect of teaching and learning in blended learning, particularly as it refers to faculty perspective and instructional development initiatives (Torrissi-Steele & Drew, 2013). Even though a number of studies have been published focusing on the different aspects of blended learning, the issue of changes in faculty conceptions of teaching and course design to teach in a blended learning environment has not been adequately explored. This topic is important because moving to a blended format brings challenges and offers opportunities that may improve teaching and learning. Therefore, this study can contribute to the literature on this area specifically.

Third, the findings of this research can inform institutions planning their own professional development programs. Especially, colleges and universities can use the findings of



this research to plan and implement faculty instructional development programs tailored to address what they deem most important to promote changes in faculty conceptions of teaching and course design. Instead of adopting an external model of professional development or following top-down guidelines, institutions can use this study to inform faculty developers about important aspects in training for blended learning that foster perspective transformation in conceptions of teaching and course design.

Finally, this research can contribute to the adult learning literature that deals with changes in conceptions of teaching and course design, by offering insights on faculty instructional development and training to implement blended learning in higher education. Not much research has been conducted on how faculty may change their conceptions, particularly in the context of professional development to implement blended learning. Such findings can support innovative professional development initiatives that focus on changes of faculty's conceptions of teaching and course design.

In summary, if the goal of a blended learning initiative is to fulfill its promise to bring "the best of both worlds" (Moskal, Dziuban, & Hartman, 2013, p. 20), face-to-face and online education, and take it to the level of what Graham (2006) calls a transforming blend, where there is fundamental paradigm shifts in pedagogy to move towards a more student-centered, active learning approach, it is essential to offer faculty instructional development opportunities that foster a change in their conceptions of teaching and course design.

## CHAPTER 2 – LITERATURE REVIEW

This study examined perceived changes in faculty conceptions of teaching as they participate in a program to design their courses to implement blended learning. Jack Mezirow's (1991, 2000, 2012) Transformative Learning theory was used as a hypothetical framework to identify and understand changes in participants' perspectives. In addition, this study examined how these changes in conceptions of teaching and course design manifest in their intent towards course design, teaching, or in their practice.

The literature that that was reviewed to support this study is divided into three sections. The first section explores instructional development at the higher education level as it is the context in which this study takes place. I start from professional development at the postsecondary level in general and narrow it down to the efforts related to instructional development in context that relate to designing and teaching courses in a blended learning format. In the second section, I review the literature on blended learning since the objective of the instructional development program is to help faculty implement some form of blended learning in their courses. This section covers what blended learning means, its promise, and the issue of faculty preparedness for blended learning. In the third and final section of this chapter, I explore Transformative Learning as an adult learning theory that was used as the hypothetical framework to examine whether the instructional development program has influenced faculty conceptions of their teaching and course design. A review of the literature helped me identify the appropriate research approach that I used and also informed the questions I asked the research participants to help me understand faculty perceived changes in their conception of teaching and course design.

For this study, I searched the literature on blended and online learning in order to find studies that would shed light on the issue of changes in faculty conceptions as a result of participation in instructional development programs. With this intent, I searched books, conference proceedings, and peer reviewed scholarly journals in the ProQuest database for “blended learning” or “online learning” or “distance learning” and “faculty” or “professor” or “instructor”. This search retrieved 392 results. Then, I read the abstracts to identify the studies that focused on the issue of faculty change as a result of their participation in professional development programs, which allowed me to select 38 articles. I also looked for publications that helped me build my claims in the areas of faculty professional and instructional development, conceptions of teaching, and instructional design. I selected a total of 66 publications that pertained to the issues above.

## **Faculty Instructional and Professional Development**

### ***Introduction***

The higher education sector is widely recognized as vital to the economy, the labor force, and in its role in educating citizens. There is a wide sentiment that colleges and universities exist for the public good and betterment of society. Such sentiment may be traced back to the Land-Grant College Act, which stemmed from the Morrill Act of 1862, setting forth the mission of higher education open to all and with a focus on the practical application of knowledge in society. After World War II, in 1944, the G.I. Bill provided veterans with, among other benefits, payments of tuition and other related expenses to attend a college or university and gave an opportunity for these servicemen to pursue higher education. The bill was important in the growth of America’s human capital and was a way to promote the nation’s economic growth (Campbell, 1995; Greenberg, 2004; Stanley, 2003).

Despite that sentiment, the sector of higher education has seen pressures from a variety of stakeholders, including lawmakers, the government, accrediting organizations, students, their parents, the society at large, and taxpayers, who call for more efficient institutions, more accountability, more affordability, more integration between academia and society, and undergraduate programs that are more relevant to the realities of today's society (Kellogg Commission, 2000; King, 2002; Mettler, 2014; Schuster & Finkelstein, 2006). In addition, the sector has also seen growing expectations and dramatic cuts in state budgets and federal grants, leading to a decrease in the resources available. Besides those pressures and expectations, the higher education sector has also experienced a great deal of changes such as the expansion of the sector itself, the composition of the student population and its staff, advances in technology, the surge of online degree-granting institutions, and the growth of competition from for-profit colleges and universities, just to name a few, forcing higher education faculty, staff, and administrators to adapt to these changes (Bowers, 2000; Christensen & Eyring, 2011; Cranton, 2011; Cuban, 2001; King, 2002; Mettler, 2014; Millis, 1994).

In fact, the 2008 Measuring Up report by the National Center for Public Policy and Higher Education (National Center for Public Policy and Higher Education, 2008), a non-profit, nonpartisan institution, stated that performance of higher education in the U.S. is not commensurate with the current needs of American society and its economy and called for the necessity to educate more young people and adults so that they will have the knowledge and skills that are more in line with the new literacies, empowering higher-order thinking for inquiry and problem solving, social skills through effective communication and collaboration, and technological skills to prepare the professionals of tomorrow to the uncertain challenges ahead (diSessa, 2000; New London Group, 1996; Partnership for 21st Century Skills, 2008). The report

also stated that the completion rates of certificate, associate, and baccalaureate programs are low and that is depriving the nation of a skilled workforce, which is needed to compete in a global market. A chief concern among those highlighted in the study is the quality of education in colleges and universities and the preparedness of graduates to engage in the workforce (National Center for Public Policy and Higher Education, 2008). Nicholls (2005) calls attention to the fact that scholars have found that the level of preparedness of college graduates is less than adequate when they are faced with the demands of the job market. In addition, with the fast pace in which technology advances nowadays and information being broadcast not only from traditional news sources but from a much wider range of information producers, including, freelance reporters, bloggers and the previously exclusively-consumer individuals, there is a greater need to be literate in 21st century skills and to learn how to use technology tools appropriately and to be critical consumers and producers of new media (New London Group, 1996; Partnership for 21st Century Skills, 2008). In the context of this study, the blended learning program that is the focus of this study was developed and implemented partly in an attempt to improve the quality of teaching and partly in response to some of the pressures mentioned above that hold true to the context of the university.

Research undertaken concerning learning at the higher education level has largely focused on two different aspects: students' personal characteristics influence on their learning and how instruction affects student learning (Lewis, 1996; Millis, 1994). This study is related to the latter issue, particularly, as it relates to professional development initiatives that address instructional development: initiatives at the course level, which concern student learning. Also speaking to that issue is the topic of higher education faculty preparedness to teach. In fact, there is still a general notion that university faculty are not adequately prepared to teach, lacking

knowledge and skills on pedagogy, learning theories, course planning, and assessment (e.g., Austin and Barnes, 2005; Gaff & Simpson, 1994; Halpern & Hakel, 2003; Lawler & King, 2001; Millis, 1994; Nicholls, 2001). This is due in part to the fact that higher education faculty do not receive proper instructional training while they pursue their graduate degrees or when they are hired to teach. They come out of their graduate programs fully prepared to conduct research but without satisfactory teaching preparation. Gaff and Lambert (1996) found that 80 percent of all doctoral degrees awarded in the U.S. come from 102 universities and that these are primarily research institutions. These institutions operate in an environment and have missions and visions that are very different from other higher education institutions whose primary focus may not be on research. Yet, only about 10 percent of the new PhDs secure a job in other research universities. Nonetheless, the ability to do research is not the only skill that is generally expected of newly hired faculty.

Gaff and Lambert (1996) also identified some other qualifications that would serve new faculty members when starting a career in academia:

New college faculty are typically confronted with a need to design new courses, teach a diversity of students, advise about education and careers, contribute to institutional initiatives ranging from internationalizing the curriculum to using technology, and serve on faculty committees – none of which they are typically prepared to do.

In addition, upon being hired, tenure track faculty face the demands to obtain tenure. However, in most cases, the reward system within higher education favors research over teaching, turning faculty to focus on research rather than teaching, service, or other administrative duties (Halpern, 1994). Also, faculty seem to identify themselves more like specialists and researchers and less like teachers (McKee, Johnson, Ritchie & Tew, 2013; Nicholls, 2014). However, other researchers have defended that there should be a balance between research and teaching (Austin, 2002; Akerlind, 2005).

### *Conceptions of Teaching*

The issue of faculty preparedness to teach has received the attention of some scholars who claim that teachers' conceptions and beliefs may influence their teaching practice and consequently impact student learning. And since this study focuses on faculty perceived changes in their conceptions of teaching and course design, it seems appropriate, at this point, to attempt to explore what the literature says about the topic of conceptions of teaching. Research on this area probably started to gain traction with the work of Pajares (1992) with school teachers when he defined belief, a term often used interchangeably with conception, as the "individual's judgment of the truth or falsity of a proposition, a judgment that can only be inferred from a collective understanding of what human beings say, intend, and do" (p. 316). Pajares stated that teachers' conceptions influence their judgments and therefore are reflected in their teaching practice. In addition, Pratt (1992) defined conceptions as "specific meanings attached to phenomena which then mediate our response to situations involving those phenomena" (p. 204). Although definitions of conceptions of teaching are not amply discussed in the literature, Kember (1997) proposed a categorization of conceptions of teaching with two major orientations and two additional conceptions for each: teacher-centered/content-oriented, which includes imparting information and transmitting structural knowledge and; student-centered/learning-oriented, which includes facilitating understanding and conceptual change/intellectual development. Besides, Kember (1997) proposed a fifth teaching conception to serve as a bridge between these two orientations: student teacher interaction.

In a similar way, Trigwell and Prosser (1996) proposed six conceptions describing teaching and suggested that conceptions of teaching affect teaching practice and student learning. Moreover, Ho, Watkins and Kelly (2001) submitted that a teacher's conception influences the

teaching strategies used. For instance, a teacher who holds an information transmittal conception will probably use teacher-centered strategies whereas a teacher who holds a conception that students are responsible for their knowledge construction will likely adopt student-centered strategies and play a facilitator role. Furthermore, Ho, Watkins and Kelly (2001) claimed that an improvement in teaching has to begin with a change in their conceptions of teaching and learning. However, it is important to highlight that the study was conducted with a total number of six teachers only, which compromises its generalization.

### ***Faculty Professional Development***

The studies on conceptions of teaching mentioned above have one main goal at their core, which is to improve teaching and learning in higher education. However, the most common efforts in trying to accomplish this objective is implementation of professional development initiatives. After surveying the faculty professional development initiatives since the 1950s, Sorcinelli, Austin, Eddy, and Beach (2006) offered a categorization of faculty professional development in five stages: scholar, teacher, developer, learner, and networker. In the first stage, the Age of the Scholar, around the 1950s, as the name suggests, faculty development focused on improving scholarly competence. In the second, the Age of Teacher, in the 1960s and 1970s, these efforts were primarily related to teaching. The third stage, the Age of the Developer, around the 1980s, saw a focus on innovation and experimentation as faculty development units started to appear on colleges and universities. It was in the 1980s that the number of instructional development centers started to grow. Next, in the 1990s, the Age of the Learner showed a growth in student-centered approaches to teaching and learning with the growing popularity of active learning and collaborative learning in part to cater for the rapidly changing student population. The authors



also proposed that the time in which we live now, the Age of the Networker, calls for faculty to take responsibility of the purposes of faculty development and to address institutional problems.

Faculty development has also been referred to in the literature as educational development, instructional development, and academic development (Gosling, 2009). At a hierarchical level Lewis (1996) also offered a categorization of three domains for faculty professional development: personal development, which includes self-reflection and growth; instructional development, which relates to course initiatives geared toward student learning; and organizational development, efforts at the departmental or institutional level. Even though, in practice the attributions and use of these terms may overlap, Millis (1994) too offered a distinction in the following way: faculty development refers to activities such as peer mentoring, classroom visits, etc., intended to improve the teaching skills of an individual faculty member; instructional development are activities like media support, course design, etc., focused on the student, the course, or the curriculum; and organizational development are, for example, campus wide initiatives, intended to improve institutional resources and climate.

In a survey study of faculty developers, King and Lawler (2003) have pointed out that “faculty development as focusing on the needs of the faculty as learners was not clear” p. (29). They found that faculty development needs assessment and evaluation were topics of concern as they rated low when compared to other practices such as enhancing the value of teaching effectiveness, improving student learning, and improving learning environment. The main problems here might be that without needs assessment it is hard to cater for what faculty want or need and that without evaluation it is difficult to know whether the intervention was successful, why that was the case, how it could be improved, and also there is a missed opportunity to contribute to the literature of faculty professional development.

### ***Faculty Instructional Development***

Now I review studies that focus on faculty professional development as they relate to instructional development. However, many authors use the terms faculty development, educational development, and instructional development interchangeably. In order to focus on instructional development, first it is important to understand faculty as teachers. In questioning the common notion that faculty members teach the way they were taught, Oleson and Hora (2013) interviewed and observed 53 faculty members in the STEM (science, technology, engineering, and mathematics) disciplines at three research institutions in an attempt to find how faculty build their teaching repertoire. The authors proposed that the causal relationship between faculty past student experiences and their teaching behavior is weak and overlooks other important sources of professional knowledge that may form faculty knowledge about teaching. In their study, they found that a variety of aspects shape faculty teaching knowledge including their previous experiences as learners, their previous experiences as instructors, the disciplinary context, the institutional practice, and the complexities of instructional decision making. The authors concluded their study suggesting that the rich knowledge about teaching that faculty build over the years should serve as a foundation when creating professional development initiatives. In other words, instructional professional development should employ adult learning theories and consider faculty as adults and being sensitive to their experiences.

McKee, Johnson, Ritchie and Tew (2013) examined three research projects (Faculty Development Practices in U.S. Colleges and Universities, 1976; Professional and Organizational Development Network in Higher Education – POD Network – Study, 2001; and Faculty Development Practices in the Southern Association of Colleges and Schools, 2009-2010) and found that, across the three studies, improving teaching and learning through directly enhancing

pedagogical design or through indirect investment in the competency of the faculty is the main driving factor for accomplishing professional development. Furthermore, their study also found that the Faculty Development study of 1976 revealed that over two-thirds of participants indicated that technology training was effective or very effective. Similarly, the POD Study of 2001 showed that integrating technology into teaching was one of the top three most important issues. And, even though the study conducted by McKee and colleagues in 2010 did not specifically address the integration of technology into teaching, participants voluntarily indicated in their open ended responses that they used technology to enhance teaching.

In a conceptual review of the literature regarding educational development in higher education, Amundsen and Wilson (2012) started by citing three earlier empirical reviews of the literature. In the first review cited, Levinson-Rose and Menges (1981) found that 78% of a total of 71 articles in their study reported participant satisfaction with the educational development activity but they generally had a prescriptive training format. They also found that the most common formats were short, one-time workshops and seminars and were the least likely to cause lasting changes in teaching or lasting impact on students. In the second empirical review, Steinert, Mann, Centeno, Dolmans, Spencer, Gelula, and Prideaux reviewed 53 articles between 1980 and 2002 in the medical sciences. Even though the authors did not find evidence that could specify what makes faculty development effective, they did find that feedback, interaction with peers, and the use of multiple instructional methods were important features of a successful faculty development program.

In the third empirical review cited by Amundsen and Wilson (2012), Stes, Min-Leliveld, Gijbels, and Van Petegem (2010) reviewed 36 articles and found that the duration – one-time event versus over time initiatives – and nature – course-like format versus a hybrid format, or an

alternative format such as peer learning – of instructional development initiative have an influence on its impact. In fact, Stes et al. (2010) reported that instructors who participated in faculty development opportunities found a positive impact on instructors' attitudes resulting in an increased awareness of their teaching methods and student learning. Similarly, they also found that instructors in general changed their conceptions – the way they think about teaching – and also that those who had more hours of instructional training changed their perceptions more than those with fewer hours and tended to value learner-centered approaches more. In addition, from the studies surveyed, the authors also found a positive impact or gains of knowledge in teaching that resulted from the instructional development efforts. They also found that most studies presented a positive impact of instructional development on various teaching skills and also on instructors' behavior. In addition, they found evidence that faculty instructional development initiatives that span over time have more positive behavioral outcomes than one-time activities. From their review, the authors also discovered that collective course-like initiatives have fewer behavioral outcomes at the instructor level but more outcomes at the student level when compared to efforts that implemented a hybrid or alternative format. In addition, they concluded that the studies showed that discipline-specific initiatives have a similar impact when compared to discipline-general initiatives.

Departing from what they gathered from these three previous reviews, Amundsen and Wilson (2012) selected 137 articles of 3,048 surveyed. They suggested a conceptual framework consisting of six clusters as a more meaningful basis for studying the effectiveness of educational development initiatives and as a way of thinking about the design of such studies. These clusters focus on skill (observable teaching skills and techniques), method (mastery of a particular teaching method), reflection (change in individual teacher's conception of teaching and

learning), institutional (coordinated institutional plan to support teaching improvement), disciplinary (examine disciplinary to develop specific pedagogical knowledge), and action research or inquiry focus (individuals or groups of faculty pursuing topics of interest). Therefore, Amundsen and Wilson submitted that asking only about the impact of educational development initiatives provides limited understanding of the practice as a whole and that evaluation should focus on the learning process rather than on specific learning outcomes in order to better understand their variation, complexity, and the underlying thinking, or conceptions, of faculty teaching practice.

### ***Faculty Instructional and Professional Development for Blended Learning***

The studies explored above are useful to inform us about professional development in general. However, the literature on faculty instructional development, specifically on faculty perceived changes of their conceptions of teaching and course design is not as abundant, particularly when we think about these topics in the context of instructional development to implement blended learning. However, this topic is exceptionally important when a study by the U.S. Department of Education (2010) found that students in blended courses performed the best, followed by students in online courses, and then by students in traditional courses, deducing that these differences may be due to the course redesign process that may result in an advantage for blended and online courses, even though the study was not able to identify the factors leading to these differences. Therefore, I searched the literature pertaining to this specific area with the intent to investigate whether there have been findings that speak to the issue of faculty perceived changes of their conceptions of teaching and course design. My literature search found articles that address the issues of instructional professional development to prepare faculty to design their courses or teaching primarily in the online environments, though some mentions of blended

learning have also been found. Mentions of changes in teaching beliefs have also been found. I reviewed those articles below, however they are addressed not investigated in the context of faculty instructional development initiatives.

In a survey study of faculty development programs for blended learning with representatives from 116 traditional, not-for-profit higher education institutions, Ginsberg and Ciabocchi (2014) found that training was required in 25% of the institutions that responded, recommended by 51% and not provided by 10%. As far as delivery modality, face-to-face training was offered by 72% of the institutions, online asynchronous training was offered by 55%, blended training by 45%, and synchronous online by 30% of the institutions. Also, the most common type of faculty development for blended learning were internal training courses (69%), followed by informal mentoring (67%), and formal mentoring (31%); other modalities such as institutional certificate programs and external training and external certificate programs were less common. Most of the institutions, 57%, did not offer any kind of incentives for participation in blended learning training, only 43% of them offered some financial compensation, and only 8% offered course release time or other kind of incentive. Ginsberg and Ciabocchi's (2014) study also reported that, in respondents' views, the most successful elements of faculty development programs were the program design (47%), the quality of instruction (48%), and faculty buy-in (43%). On the other hand, the least successful elements of faculty development programs, according to respondents, were incentives for faculty participation (28%), training being recommended but not required (24%), faculty buy-in (19%), and sufficient number of qualified staff (19%), with the general sense being that institutions offer inadequate incentives and support for blended learning faculty development programs. The institutions' representatives also informed that such programs could be improved by providing incentives for

faculty participation (48%), requiring training (47%), increasing the number of qualified training staff (43%), increasing financial support (38%), improving training program design (29%), offering a more convenient delivery format (18%), and increasing the quality of instruction (15%).

In a study involving 39 post-secondary public institutions about the content in their practices for faculty development for online teaching, Meyer and Murrell (2014) reported that 72% of these institutions covered learning style as part of their training – despite the criticism related to the lack of empirical research on this topic –, 69% used adult learning theory (Merriam, 2001) and self-directed learning (Tough, 1971), 64% used Kolb's (1984) experiential learning, 59% used Knowles's (1980) andragogy, and 54% used various instructional design models. In addition, the authors wrote that for faculty training, methods of good practice were largely favored (79%) over literature on online teaching (31%) or theories of learning (23%). Besides, it was also reported that, among the articles on faculty development for online teaching reviewed, only 15% included a learning theory to inform the design of such initiatives. They then recommended that faculty development efforts should use learning theories more frequently, ground these initiatives on theories, and evaluate their impact on student learning. The authors did not report any ramifications of the use of instructional design models in these training programs or institutions.

Torrise-Steele and Drew (2013) conducted a survey of the literature consisting of 827 articles and found that most of the studies (65.9%) in the blended learning literature fell on a “how-to” category and covered issues such as “context cases” and “course cases” (p. 373). The second main category, student focus, represented 25.6% of the articles and most of them were related to the student experience. The third category was related to academic's practice with

blended learning with a low 4.2% of the articles surveyed. The studies surveyed in this area revealed that there needs to be a balance between technical skills training and pedagogical approaches in a variety of ways, including training sessions, workshops, departmental forums, communities of practice, mentors, virtual collaboration, and technical support.

With most articles in the blended learning literature focusing primarily on the “how-to” category, followed by articles with a student focus, the area of academic’s practice in blended learning, especially as it relates to faculty instructional development and changes in their conceptions of teaching and course design has not received adequate attention from researchers (Torrissi-Steele and Drew, 2013). Next, I review articles that are relevant to these topics.

In the context of instructional development initiatives geared towards online learning, Freeman, Larson, and Holcomb (2005) surveyed 27 clinical laboratory science faculty members about how they perceived the training they received in distance learning course development and teaching and expanding their skills to traditional course development and teaching. The authors found that those who participated in the program valued learning about goal and instructional analyses, media selection, and aligning objectives, assessment, and instructional strategies not only for their distance education program but also for their traditional teaching skills. The study, however, restricted to clinical laboratory science faculty, was geared toward Web-based education, and was focused on the development of instructional units. In addition, the study did not explore faculty members’ perceptions of their conceptions of teaching as a whole nor did it include any type of qualitative data. Similarly, in working on developing an instructional design model for online course planning for faculty teaching face-to-face and online, Power (2013) found that faculty prefer course design models that are more traditional and discipline specific, covering light instructional design and rejected high-level instructional design components. In



addition, Martin (2011) found that after participating in the design phase of the creation of instructional modules in digital visual literacy performing assigned tasks in instructional design, instructors in a community college included these tasks in their lesson design.

McMurtry (2013) explored the design of an online training seminar covering best practices to be used in online courses based on a constructivist instructional design model for faculty new to online teaching. Evaluation of the training seminar was not made available in the article, only the design of the training was, but the author indicated that “additional questions will gauge pedagogical changes participants plan to make or have made as a result of the seminar, requiring them to consider how they will apply what they have learned”, pertaining to online teaching exclusively and not blended learning environment.

In a study to evaluate the effectiveness of a program whose goal was to “educate and certify faculty members in the principles of instructional design in order to enhance the quality of their online courses” (p. 142), Buckenmyeyer, Hixon, Barczyk, and Feldman (2013) found that most participants were able to apply what they learned in the program in other online courses as well as in traditionally-delivered course they teach based on major program characteristics: focus on instructional design, focus on mentoring, focus on collaboration, and transfer of learning. It is important to highlight that the program focused on developing online courses. In addition, the program used a structure that is quite different from the blended learning program in this study. It paired program participants with a mentor who had completed Quality Matters training and also had online teaching experience. In addition, it prepared faculty to teach online and spanned of the course of over two semesters. However, the study also stated that it had two potential limitations. First it relied on self-reported data, offering the likelihood, though low, that participants may report in a desirable manner in view of the researchers. A second limitation was

that the study was purely quantitative and used only one survey instrument not offering further insights about in what ways the program helped improve participants' teaching. Therefore, the study suggested that future research should go past self-reported data and use qualitative research methods in order improve validity. Besides, the study did not focus on faculty changes of their conceptions of teaching.

Many of the training opportunities that involve instructional design are geared toward moving a course entirely online, in other words, toward a very different goal (e.g., Freeman, Larson & Holcomb, 2005). Nonetheless, Lee and Dashew (2011) examined training for faculty shifting from a face-to-face course format to a blended format. The faculty surveyed expressed concern that teaching and the interactions (faculty-student, student-student, and student-content) could be compromised with this change. The article addressed these three design components but did not offer an insight on whether the instructional design components of the training influenced faculty conceptions of teaching or whether they perceived any changes in their teaching. Studies by Lawler and King (King, 2003; Lawler and King, 2000) have suggested that "the reward system for faculty may not be consistent with the faculty development offerings" and therefore faculty "may see little incentive for change" partly because changing involves "risk taking, discomfort and anxiety" (Lawler & King, 2000, p. 12). They suggested that "conceiving faculty development as adult education and seeing the faculty as adult learners are crucial for motivation and the outcomes of a motivated learner" (Lawler & King, 2000, p. 12). They proposed that faculty development programs should offer instructional strategies and educational philosophies tailored to faculty as adult learners so that they can explore alternative approaches in their teaching. Such programs should focus on issues that are relevant to faculty both as teachers and as adult learners such as their limited theoretical knowledge about teaching and

instructional methodologies, teacher-centered versus student-centered approaches, using technology for teaching and learning, and active learning, all through “recognizing and operationalizing the view of educators as adult learners to afford a participatory learning environment” (King, 2003, p. 124). Similarly, in a research study involving 175 teachers enrolled in graduate level courses in educational technology over the course of 36 months, King (2002) found that classroom practice may be impacted as new teaching methods, strong learning objectives, and active learning environments are explored, possibly resulting in lesson and curriculum revisions and ultimately transforming teachers’ perspective on their teaching. King and Lawler (2004) also stated that faculty developers are aligned with the literature as it relates to the commitment to teaching and learning effectiveness. Issues that have emerged in the recent literature on faculty development include what faculty desire to learn, what they value, the teaching experiences they already have, their disciplinary knowledge, opportunities for active faculty participation, and recognizing and respecting faculty as adult learners, always taking into consideration the context of their institution and their affiliation. This can be achieved by aligning adult learning theory to program planning.

King (2003, 2007) proposed a model of professional development, based on Mezirow’s (1991) Transformative Learning theory. King’s Journey of Transformation model comprises 4 stages as opposed to Mezirow’s 10 stages: fear and uncertainty, testing and exploring, affirming and connecting, and new perspectives. King suggested that faculty first feel anxiety toward technology; then they might gain some confidence and start to explore technology and how they might utilize new teaching methods; next, they might bridge their teaching experience with technology and maybe start looking at teaching and learning from a new perspective; and finally, they engage in self-evaluation to improve their practice. King (2003) has found that professors

were adopting “student-centered learning, cultivating critical thinking skills development, increasing dialogue with and among students, engaging students in constructivist learning, and growing in awareness of technology issues and confidence and empowerment as teachers and learners” (p. 58). Her extended study revealed that educators can have transformative experiences from changing from a “received knower” to a “constructed knower” while learning educational technologies as they go through these four stages, possibly fundamentally changing their educational practices in an effort to “revitalize higher education” (King, 2003, p. 59). In addition, King (2007) wrote that her proposed model could be tested to provide refinements for diverse settings and that the research could be expanded to include faculty in community colleges from different disciplines and explore the relationship between other adult-learning theories to verify similarities and differences and whether the model would fit among these other paradigms.

In a qualitative study involving college instructors, King (2002) investigated faculty changes in perspective while they learned and used technology in their academic roles and how their teaching practice changed as a result of that experience. The author found that both reflection and their teaching experience prompted changes in their perspective and practice of teaching and not the use of technology alone. The most common themes of changes found in the study include: cultivating critical thinking skills, increasing dialogue in class, becoming more student centered, engaging students in constructivist learning, organizing their work better, and using computer and web resources in their teaching. King’s research suggested that faculty professional development initiatives should go beyond providing technological skills and offer an opportunity to foster meaningful changes in faculty perspective and practice. While the

findings can be informative, the changes in these instructors' perspectives or in their educational practice did not stem from participating in instructional professional development.

More recently, McQuiggan (2012) conducted a study where participants were in a two-semester faculty development program for online teaching. During the program, faculty were presented with activities that explicitly asked them to reflect on their core teaching beliefs, evaluate the teaching strategies they used the most, and revise their assignments and assessment instruments. The result showed that faculty self-reported a change in their teaching practice and moved toward a more student-centered approach. Earlier, in studying faculty development initiatives designed to prepare instructors to teach online, McQuiggan (2007) had found that such endeavors helped transform participants' view on teaching and learning and concluded that faculty development opportunities based solely on teaching technology skills might not lead to a change in participants' view of teaching and learning.

Course planning, including unit planning, is an essential part of teaching. However, many new faculty members inherit syllabi from peers and many times never have a chance or proper guidance from colleagues or trained professionals to revamp the courses they teach. In fact, discussions about teaching mostly focus on pedagogical methods or techniques for the teaching practice itself; not much attention is given to course planning or aspects of teaching such as the integration of technology, particularly in a non-traditional course format such as online or blended learning. Course planning is an important aspect of teaching since the norm in designing and developing course for new delivery formats is that most of the work in creating these courses lie on the faculty members' shoulders.

It was mentioned earlier that faculty build a repertoire that shapes their teaching practice. This repertoire includes, but is not limited to, their past teaching and learning experiences, the

culture of their discipline and institution, and the complexities of the instructional decision making process. When faced with the possibility of incorporating blended learning in their courses, faculty tend to rely on this repertoire, which may only include experiences teaching face-to-face. However, teaching a blended learning course may require different ways of teaching, offer new opportunities for change and improvement, and utilize a more student-centered approach bringing about increased interaction and learner responsibility (Conceicao, 2006; Lowes, 2008; Wingard, 2004).

Many of the research studies in blended learning have focused on what Graham, Henrie, and Gibbons (2014) termed “surface features” (p. 27), without addressing key pedagogical attributes of the blended learning initiative. Graham, Henrie, and Gibbons (2014) recommended that research on blended learning go past surface features and explore “core pedagogical attributes” (p. 27) of the system and not its physical systems. They went on to say that the focus on the physical attributes and the generated models of blended learning can shed light on some aspects such as access and cost, however, it falls short in exploring pedagogical attributes that may have an impact on learning outcomes. Such pedagogical attributes are likely covered in programs that help faculty redesign their courses for blended learning.

Furthermore, McDonald (2014) pointed out that “[i]nstitutions of higher education should provide training to instructors who have never participated in blended learning prior to their facilitation of a course, ensuring that they understand the importance of instructor presence in both the online and face-to-face class sessions” (p. 233) and complemented by recommending further research to study how to promote faculty participation in blended learning and how to prepare faculty to teach blended learning courses. If professionals in the field of faculty development, particularly instructional development, wish to ground their practices in more solid

theoretical foundation or wish to advance new theory, there needs to be more research that is based on theory.

## **Blended Learning**

### ***Introduction***

“The word ‘blended’ implies a combination or mixture” (Picciano, 2014, p. 4). The term blended learning has also been used interchangeably with mixed mode, hybrid or combined instruction. We can probably say that, in general lines, blended learning involves some combination of face-to-face instruction and the delivery of instruction in some other modality. Over the past decade or two, however, with increased access to personal computers, the widespread use of the Internet, and the growth of online learning, many people have associated the term blended learning with the combination of face-to-face instruction and online education.

Almost ten years ago, it was also reported that faculty members expected “the vast majority of courses having some Web component” by 2013, even though the study broadly referred to blended learning as “instruction that combines face-to-face with online offerings” and categorized blended learning merely in terms of the amount of student learning that is related to the blended portion of the course (Kim & Bonk, 2006). In addition, results from a recent survey revealed that the number of college students in the U.S. who took at least one online course grew almost 400% in just over 10 years from 1.5 million in 2002 to 7.1 million in 2013, which in that year represented 33.5% of all college students in the U.S. (Allen & Seaman, 2014). Similarly, Carter (2008) reported that the percentage of college students taking online courses grew almost 150% in just 6 years jumping from 9% in 2002 to 22% in 2008. In addition, in their report, Future of Higher Education, PEW Research Center revealed that colleges and universities are

investing in blended learning and that many experts in the field predict that there will be an increasing movement to blended courses (Anderson, Boyles, & Rainie, 2012).

### ***Towards a Definition of Blended Learning***

Despite the rapid growth of blended learning, “[t]here is no generally accepted definition” (Picciano, 2014, p. 3) that can be applied across institutions since the context of each institution – student body, faculty composition, governance, technology, institutional values and culture, and instructional and administrative resources and support, etc. – plays a vital role in defining what blended learning is (Moskal, Dziuban & Hartman, 2013). In addition, Picciano (2014) added that “[t]here are many forms of blended learning but a generally accepted taxonomy does not exist” (p. 3). Moreover, Porter, Graham, Spring, and Welch (2014) stated that creating a definition for blended learning is important because it differentiates blended learning courses from other delivery methods for the purpose of scheduling, helps students create clear expectations about the nature of a blended learning course, and drives institutional strategy, policy, structure and support models. In addition, definitions of terms and the proposition of models and theories are important to guide inquiry and practice (Graham, Henrie, & Gibbons, 2014).

Nonetheless, some attempts to define blended learning have been made. Driscoll (2002) proposed that blended learning is the combination of didactic methods and delivery methods using web-based technologies. Graham (2006) described blended learning as a system, emphasizing the importance of computer-mediated interactions. Jones (2006) defined blended learning as a combination of face-to-face meetings, web-based learning via a Learning Management System (LMS), synchronous, and asynchronous discussions. For Rovai and Jordan (2004), a blended learning approach allows for more flexibility to course design so that learning



may happen at different times and places, with the conveniences of fully online courses but still securing some face-to-face interactions.

A group of faculty and staff created a definition for blended learning on campus and listed it in the University blended learning toolkit site (“Blended Learning Toolkit” n.d.):

At [institution’s name], blended learning courses are instructor-designed and supervised environments that use face-to-face and technology-mediated channels to enhance interactive, engaging learning experiences and to improve student learning outcomes.  
(para. 2)

### ***The promise of Blended Learning***

It has been suggested that blended learning can be “both simple and complex” (Garrison & Kanuka, 2004, p. 96). The simplest form would mean a simple replication of traditional teaching practices to a blended learning type of structure. In its complex form, blended learning would entail careful planning toward a more student-centered, active learning approach at all levels including, faculty, students, the course, the programs, the department, the school, support services, and the institution as a whole. There is a perception that courses on either end of the spectrum, entirely face-to-face or fully online, present more stable ground for both faculty and the institution.

In some accounts, blended courses seem to bring “the best of both worlds” (Moskal, Dziuban, & Hartman, 2013, p. 20): face-to-face and online education. Students may complete the online components at their convenience while not having to complain about the complete lack of face-to-face instructor-student contact, which is the case in a fully online course. Faculty may gradually become familiar with pedagogical strategies, technological tools, and resources in the blended learning environment while still maintaining face-to-face time with their students. Colleges and universities may blend to make better use of their facilities reducing the use of precious classroom space when most institutions see an increase in enrollment (Moskal,

Dziuban, & Hartman, 2013). In addition, blended learning initiatives should strive to foster deeper, active learning while giving students more flexibility (Vaughan, 2010). Such initiatives should take advantage of the opportunity to redesign a course and rethink how courses should be designed, developed, delivered, facilitated (Bleed, 2001), and also reconsider how to assess students and evaluate the blended learning experience at all levels. All of these opportunities present uncertainties and opposition, a phenomenon that has been well documented in other contexts (e.g., Cuban, 1986, 2000), since they do not conform to the current realities of most institutions. Therefore, there is still a great deal of resistance to adopting blended learning at the institutional level (Vaughan, 2007).

A course redesign with the objective to blend some portions of the course may offer an opportunity for improvement in the teaching practices and also in student learning when such courses go through the process of redesigning the learning experience. A study by the U.S. Department of Education (2010) found statistically significant differences between the three delivery modalities: blended, online, and face-to-face. The study reported that students in online courses performed slightly better than those in face-to-face courses and that students in blended courses performed the best. The study also revealed that the course redesign process may result in an advantage for online or blended learning courses but it was not able to identify the factors leading to these differences. The study also found that most faculty who responded to the survey reported that they experienced a positive impact in their classroom teaching that resulted from the careful redesign and development of an online or blended course.

There have been numerous accounts of the benefits of successful blended learning implementations for students, faculty and the institution (e.g., Moskal, Dziuban, & Hartman, 2013; Porter, Graham, Spring, & Welch, 2014; Vaughan, 2010; Wicks, Craft, Mason, Gritter,

and Bolding, 2015). However, these benefits are only attained when the process of blending is taken thoughtfully and carefully, involving expert instructional design methods and a well-planned integration of technology-mediated and traditional face-to-face education (Garrison & Kanuka, 2004). In addition, blended learning presents an opportunity to reconceptualize teaching and learning in addition to creating more effectiveness, convenience, and efficiency (Vaughan, 2010).

As far as learning, the ultimate goal of well-designed blended learning is to foster student reflection and dialog, where students are encouraged to construct meaning and reach a shared understanding. In carefully designed learning environments, a situated perspective of learning (Brown, Collins, & Duguid, 1989; Gee, 2004; Lave & Wenger, 1991) should be applied, considering how the social context, the tools, and artifacts in the learning environment may both afford and constrain learning. In addition, it is important to realize that intelligence is distributed (Pea, 1993) among the learner, the peers, the instructor, the course materials, the artifacts, and the activities. Therefore, it is important that learning environments not only support communication and collaboration to foster the co-creation knowledge but also that they enable the affordances intended by the designer.

In the emergent literature on the impact of digital games in education, formal and informal, and how they may impact learning and society, Kurt Squire has coined the term “designed experiences” (2006) to refer to the notion that players, in our case students, are exposed to and interact with the events that the game designers, in our case the instructor and the instructional designer, have intended. To go a step further, learning environments and activities can borrow from the concept of “designed experiences” (Squire, 2006) to guide students, scaffold the process of knowledge construction, and orient the learning experience. After all,

such learning environments have in them the intentions of the designer and the interplay between the user and the designed artifacts (Norman, 1993) generate the affordances (Pea, 1993) from those interactions. In addition, such learning environments should allow instructors to easily modify their courses, adapt their materials, customize tools, artifacts, and activities to better meet the needs of their students and ultimately offer “knowledge-aggregating tools, creating and supporting knowledge-building communities, and providing tools for teachers to identify and organize useful resources” (Squire, 2010, p. 2597). These capabilities give instructors a lot more freedom to exert their professional practice but also challenge instructional designers to take full advantage of instructional design practices, available technologies, and the possibilities that blended learning environments may offer.

One of the reasons why some blended learning initiatives are successful is that they combine face-to-face meetings with the possibility of adopting modern and emergent computer-based, online, and mobile technologies in an effort to take full advantage of the affordances that the use of these technologies may bring. Research on digital games and education has explored what makes these environments so immersive and appealing for players. These studies are important because they combine the latest in technology while effectively involving users and communicating their message. Good video games are excellent examples of compelling environments that can inform the design of successful educational experiences in formal and informal settings and engage learners to reach a systemic level of understanding (Squire, 2006). James Gee (2003, 2007) derived a set of good learning principles that are present in video games that could very well be efficiently used in the design of educational environments that empower learners, keep them engaged in problem-solving, and develop systems-thinking skills. In addition such environments require players to become fluent in 21st literacy skills. The use of these

learning principles in a technology mediated environment lend themselves well to the design of sophisticated blended learning environments, presenting opportunities to leverage the best affordances of each modality, face-to-face and online education, and incorporating “pedagogies that combine immersion with well-designed guidance” (Gee, 2005, p. 2), making the careful design of these environments even more important.

In any case, for blended learning proponents, it is the hope that a thoughtfully planned blended initiative will bring about better, deeper interactions with course content, improved student-faculty and student-student social interactions, meaningful active learning environments, the engagement of higher order thinking, the development of problem solving and collaborative skills, and authentic learning experiences and assessment that closely resemble the real world context.

### ***Framing a Discussion on Blended Learning***

In an effort to frame a discussion around blended learning, the Sloan Consortium (now The Online Learning Consortium) proposed a set of principles for blended learning across several constituencies. At the institutional level, there needs to be a shared vision of what blended learning means, how it can improve teaching and learning and decrease costs at scale. For faculty, there should be institutional support and recognition. From a student perspective, the initiatives should meet their needs as learners. For student services, there should be a seamless integration of such efforts. And finally, from a technology perspective, appropriate technology should be available and supported, training, and design opportunities should also be in place (Moore, 2004). It is clear that implementing a successful blended initiative is not a simple task and involves many moving parts.

The Online Learning Consortium has also proposed five pillars of quality to ensure that online education is at least as effective as other modalities, The Sloan Consortium Quality Framework and the Five Pillars, more commonly known as the Sloan-C Pillars outlined: 1) learning effectiveness – the quality of online learning should be at least at the same level of the institutional norm; 2) cost effectiveness and institutional commitment – services are improved and costs are reduced; 3) access – learning resources should be accessible to all students; 4) faculty satisfaction – instructors are pleased to teach online; 5) student satisfaction – students are pleased with their learning experiences, interactions, learning outcomes, orientation, and services (Moore, 2005). In addition, Laumakis, Graham and Dziuban (2009) suggested that the Sloan-C Pillars for online education work “equally well for the evaluation of blended learning environments” (p. 1). The authors also proposed that the pillars help evaluation and assessment efforts by moving from objective, non-contextualized, constructed measurements to reflective, contextual, organic measurements and suggested that the pillars can be used with face-to-face, online, and blended learning modes of instruction as a reliable framework for evaluation and assessment.

As for classifying the types of blended learning initiatives, Graham (2006) proposed a characterization of types of blended learning as: enabling blends – environments that increase access; enhancing blends – models that show an improvement in pedagogy and learning environments; and transforming blends – ones that foster fundamental paradigm shifts in pedagogy. Graham (2006) also suggested that blended learning initiatives could be thought of in terms of elements such as enhancement, presence, access, reusability, transformation, replacement, and process emphasis.

### ***Building a Literature on Blended Learning***

Even though research on blended learning has been gaining more and more attention over the last few years, the concept of blended learning is “still finding its place in the educational landscape” (Moskal, Dziuban, & Hartman, 2013, p. 20). As a matter of fact, Torrisi-Steele and Drew (2013) have called attention to the issue that the blended learning literature on current academic practices is still deficient and this results in the lack of a foundation for professional development and support. In investigating why faculty decide to blend their courses and whether they adopt a “transforming” blend modality or simply an “enabling” blend (Graham, 2006), Torrisi-Steele and Drew (2013) conducted a survey of the literature consisting of 827 articles and found that most of the studies (65.9%) in the blended learning literature fell on a “how-to” category and covered issues such as “context cases” and “course cases” (p. 373). The second main category, student focus, represented 25.6% of the articles and most of them were related to the student experience. The third category was related to academic’s practice with blended learning with a low 4.2% of the articles surveyed. The studies surveyed in this area revealed that there needs to be a balance between technical skills training and pedagogical approaches in a variety of ways, including training sessions, workshops, departmental forums, communities of practice, mentorship, virtual collaboration, and technical support.

Perhaps the most consistent research and data on blended learning implementation comes from the University of Central Florida (UCF) where they have gathered data since 1997, documenting and evaluating their experiences with implementing online and blended learning, after they realized that three quarters of the students making part in a distance education cohort were in fact residential students. With so many years of institutional experience in the area, UCF received a Next Generation Learning Challenges (NGLC) grant to disseminate their successful experience beyond their campus. One of their deliverables was a course design plan for faculty

with materials and resources. One other deliverable was the creation of a blended learning toolkit to offer support to over 20 partner institutions. The toolkit included strategies for blended learning course design and delivery, blended course models, assessment and data collection protocols, materials, a massive open online course, and webinars, virtual and in-person workshops to train instructors (Moskal & Cavanagh, 2014). In addition, by the completion of the program data will have been collected at the student, faculty, course, and institutional levels from a shared evaluation methodology provided by UCF and made available to these partner institutions (Moskal, Dziuban, & Hartman, 2013). These efforts have yielded studies that have resulted in several publications (e.g., Halverson, Graham, Spring, Drysdale, & Henrie, 2014; Moskal, Dziuban, & Hartman, 2013; Porter, Graham, Spring, Welch, 2014). Although the objective of UCF and NGLC is to collect a wealth of data on blended learning, their intensive research does not touch on faculty perceived changes of their conceptions of teaching as they participate in a program to help them design or redesign their course to implement blended learning. In fact, Moskal and Cavanagh (2014) lamented that even though much data are available from their study such as count of students, courses, and faculty, they were not able to capture “the depth of change faculty experience due to the training”, claiming that money and time constraints “did not allow for site visits or interviews, which may have provided valuable information as to exactly what transformations may have taken place” (p. 49).

In addition, research studies have suggested that student satisfaction and achievement is higher in blended courses than in courses delivered fully online or fully face-to-face (Moskal, Dziuban, & Hartman, 2013; Means, Toyama, Murphy, Bakia, & Jones, 2009). Student satisfaction is an important variable that institutions should take into account as it helps create a favorable climate, increasing demand and driving course, curriculum and program planning.



Promoting a student-centered approach to teaching is important because in such a learning environment students are more likely to take more responsibility for their learning (Prosser and Trigwell, 1999), which is in turn associated with applying metacognition and fostering life-long learning skills, characteristics that are important in the global society of today.

### ***Faculty Preparedness for Blended Learning***

With all that is involved with teaching online, faculty have expressed that they are more concerned with being confident about the pedagogical aspects of teaching online than with mastering the technological aspects of it (Kim & Bonk, 2006). Therefore, it is imperative that institutions provide faculty with adequate and appropriate instructional development opportunities, otherwise they will likely not embrace blended learning completely and therefore miss out on taking full advantage of its many affordances and will instead try to reproduce their original teaching approaches (Garrison & Vaughan, 2013). In addition, Garrison and Vaughan (2008) pointed out that one of the main barriers to the successful adoption of blended learning initiatives is the lack of appropriate professional development and support. Besides, Graham (2006) recommended that such professional development efforts should address the issue of transformation at the level of the individual academic practice.

Vaughan (2010) found that faculty who implemented a redesigned course for blended learning appreciated the opportunity to experiment with new teaching strategies and tools and therefore revitalized their teaching practice. They also found that faculty members perceived an increased engagement of students with the course concepts. On the other hand, faculty also reported that they had an increased workload initially and that they faced some student resistance in taking charge of their own learning. In addition, Wicks, Craft, Mason, Gritter, and Bolding (2015) discovered that faculty working in a learning community to implement blended learning

reported that it was helpful to have a space where they could discuss successful methods and strategies for blended learning and get advice on how to best implement their ideas. Their study also revealed that the sense of community helped build a positive peer pressure atmosphere.

They also reported that in order for such a learning community to be successful, there needs to be a clear structure, objectives and means of communications. Vaughan (2009) also suggested that combining different teaching techniques and varied technology tools makes redesigning a course for blended learning a challenging process, particularly if faculty do this in isolation.

Designing a successful blended experience can be a daunting task. Osguthorpe and Graham (2003) have outlined six goals that faculty should have in mind when blending their courses: 1) pedagogical richness; 2) access to knowledge; 3) social interaction; 4) personal agency; 5) cost effectiveness; and 6) ease of revision (p. 231). These goals can help faculty developers understand the motivations that drive faculty members to move to a blended format so that they can better assist faculty in their efforts.

It has been mentioned above that faculty members are experts in their disciplines and also that the success of a blended learning initiative relies on careful planning and design. Therefore, faculty development efforts play an essential role in the implementation of a blended initiative. In fact, Joosten, Barth, Harness, and Weber (2014) have warned that “[i]nstructional and faculty development provide the core foundation to institutional programming in providing a framework for implementing blended learning pedagogy in the classroom” (p. 173). And since we have seen a growth in the number of courses offered in a blended learning modality, opportunities for instructional development to redesign and teach blended courses become even more important, particularly if those courses are to fulfill the promises of blended learning discussed above. In fact, as Dziuban, Hartman, and Moskal (2004) suggested, the success of blended learning

initiatives depend on “a planned and well-supported approach that includes a theory-based instructional model, high-quality faculty development, [and] course development assistance” (p. 3).

In addition, Dziuban, Hartman, Moskal, and Robinson (2007) emphasized that designing or redesigning a course for blended or online learning is not a simple task, as we have discussed above, but requires a “fundamental rethinking of objectives and instructional strategies” and “a shift in personal theories of teaching and instructional behaviors (new mental models) – becoming a ‘coach’ rather than a ‘teacher’ – especially in environments that emphasize active student learning” (p. 271). The goal of this study looks specifically at that: identify and understand perceived changes in faculty conceptions of teaching as they participate in a program to help them design or redesign their course in order to implement blended learning. In addition, Joosten et al. (2014) recommended that an instructional development program that focuses on blended pedagogy can effectively facilitate instructors as they go through this pedagogical transformation and help them see the benefits that a blended learning environment may afford. Joosten et al.’s (2014) study focused on the impact of instructional development on the effectiveness of blended learning courses. They found that instructors who did not participate in training did not have the knowledge to integrated blended learning activities or to choose the medium for such activities and tended to use and prefer face-to-face interactions, resulting in little impact on student outcome. On the other hand, courses whose instructors participated in training showed a positive impact on student interactivity and student success as far as higher grades and student completion rates. In their study, they identified five variables to measure effectiveness (student interactivity, learning, satisfaction, retention, and success) but they did not

explore changes in faculty conception of teaching from the participation in instructional development.

Well-designed faculty professional development serve to reduce the workload that could lie on the shoulders of faculty members by introducing and discussing concepts such as copyright, course ownership, course design, assessment, and evaluation. The goal of these programs is that blended courses, when comparing students' performance and satisfaction to similar courses in other modalities, will show improved design and quality, increased student engagement, more authentic learning experiences, forms of assessment, and enhanced learning outcomes (Dziuban, Hartman, Cavanagh, & Moskal, 2011).

For some, blended learning holds the promise that it will bring about change in higher education making it more affordable, accessible and effective to attend to the demands of our current society. However, for the most part, blended learning has not lived up to its full potential, not due to the shortcomings of the potential affordances of its successful implementation by any means but to how it is actually implemented. In other words, blended learning is not a silver bullet that will solve all problems in higher education in the twenty-first century. On the contrary, it is the ways in which it is implemented that will determine whether it may bring about change in post-secondary education, facilitating active learning, and improving pedagogy and learning effectiveness. This means moving away from simply replicating old practices to address problems of flexibility and efficiency and moving towards course transformation through its redesign to reexamine course objectives and to appropriately align them to activities and assessment in order to take full advantage of the affordances of face-to-face and technology-mediated interactions and transform teaching and learning in a significant way.

### **Transformative Learning**

In this study, I used Mezirow's Transformative Learning (1991, 2000, 2012) theory as a hypothetical framework to identify and understand faculty changes in conceptions of teaching and course design as they participate in a program to redesign their courses to implement blended learning. Although many theories and assumptions on adult learning have emerged over the years, only a few formal theories have been empirically tested and a substantial body of research to support these few theories is still lacking (Brookfield, 1992). Speaking of Transformative Learning, Merriam and Caffarella (1999) suggested that "more than any other approach, this theory has captured the attention of adult educators within the past decade" and that "the theoretical foundations articulated in detail by Mezirow... are sufficiently robust to foster continued debate, discussion, and research" (p. 338).

Mezirow started to develop his theory of Transformative Learning out of his studies of adult women's reflections about their experiences while returning to college as non-traditional students in the 1970s, a time when they were re-evaluating their roles as changing from those of housewives into those of graduate students and professionals as they returned to college and work, which promoted a shift in their thinking (Mezirow, 1985). Nowadays, technology is bringing about changes in the way people do things, interact with one another, and how they think. The field of teaching at the higher education level is not different and faculty are experiencing pressures from students, parents, and policymakers to change education to make it better and more efficient. As a result, faculty are rethinking their teaching practice to respond to those pressures, which may result in changes. This study, then, lends itself well to apply Mezirow's Transformative Learning theory as a hypothetical framework to study this rethinking and potential resulting changes.

In more general lines, Mezirow saw learning as “the process of using a prior interpretation to construe a new or a revised interpretation of the meaning of one’s experience in order to guide future action” (Mezirow, 1996, p. 162). Mezirow (2012) later proposed that learning may occur in four different ways: elaborating existing frames of reference, learning new frames of reference, transforming points of view, or transforming habits of mind. Transformative Learning as seen by Mezirow is a cognitive, meaning-making process that may manifest in a change of an individual’s belief or attitude, or in an individual’s entire perspective. At the heart of this process is the individual’s life experiences from which he/she constructs meaning of the world through critical reflection and constant negotiation of perceived realities. Transformative Learning aligns with constructivism in that people construct meaning through their experiences with the world and validate it through their interaction with others. Therefore, meaning exists within people’s minds.

Mezirow drew on writings exploring transformation as a theory towards learning, calling attention to the fact that the underlying notions of much of his work derived from Freire’s (1970) *conscientização*, a critical assessment of the environment from a social change or social justice perspective and the “capacity to transform that reality through action upon it” (as cited in Cranton, 1996, p. 140), and Habermas’s work on differentiating instrumental and communicative learning, who maintained that “social systems reproduce themselves through production and socialization, social labor, and systems of roles” (Cranton, 1996, p. 143) with language being a medium that works as a type of transformer and that through exchanges of their experiences and perceptions, individuals can change their social system.

First, I turn to important aspects of Mezirow’s Transformative Learning theory as it has evolved. Mezirow borrowed from Habermas’s work where he identified three kinds of

knowledge: instrumental, communicative, and emancipatory. Instrumental knowledge relates to objective external reality through observable phenomena and laws that can be identified through science. Communicative or practical knowledge, as the name implies, refers to the need to communicate with one another through individual and shared understandings that are subjective. Emancipatory knowledge deals with our ability to question instrumental and communicative knowledge and to be self-determining, by being aware and critical of ourselves and our context, and self-reflective, by being aware and critical of our perceptions of knowledge (Cranton, 1996). In Transformative Learning theory, though, emancipation is the transformation that occurs within the instrumental and communicative learning domains.

Mezirow related emancipatory action to perspective transformation and refined that emancipatory learning was applicable to instrumental and communicative learning. In addition, Mezirow made connections between self-directed learning and Transformative Learning proposing that in self-directed learning, the learner takes part in dialogues to compare one's perspectives to those of others and adjust them accordingly, thus engaging in Transformative Learning.

Two important concepts were also advanced by Mezirow (1991): meaning schemes and meaning perspectives. Meaning schemes are beliefs, feelings, value judgments, and expectations that direct our lives, which usually operate outside of awareness. On the other hand, meaning perspectives are the generalized structure of our cultural and psychological assumptions – predispositions that filter the interpretations of meanings of our experiences. He explained that by consciously determining the circumstances that an idea is valid, meaning schemes are validated or negated and meaning perspectives are restructured. Mezirow added that reflective learning involves assessing or reassessing assumptions and that reflective learning is

transformative when these assumptions become distorted or invalid, resulting in transformed meaning schemes or when reflection focuses on premises, resulting in transformed meaning perspectives.

While meaning schemes may be transformed through reflection on a daily basis, it does not mean that it involves self-reflection necessarily. In other words, we might simply adjust our interpretations. However, transforming a meaning perspective, which happens less often, always involve critical reflection of previously unquestioned premises, and is more likely to also involve self-reflection (Mezirow, 1991).

In Transformative Learning theory, discourse is the use of dialogue aimed at a shared understanding and assessment of beliefs by exploring alternative perspectives. It may happen through interactions among group members, between two people or by reflecting on a book, poem, painting, etc. In addition, reflective discourse is the critical assessment of assumptions by sharing experiences in order to reach a better understanding (Mezirow, 2012). In Transformative Learning, discourse may happen in one-to-one relationships, in groups, or in formal education settings (Merriam & Caffarella, 1991).

For Mezirow (2012) a “frame of reference is a ‘meaning perspective’ – the structure of assumptions and expectations through which we filter sense impressions” and he explains that frames of reference are “the results of ways of interpreting experience” (p. 82). In addition, for Mezirow, a frame of reference has two dimensions: “a habit of mind and resulting points of view. A habit of mind is a set of assumptions—broad, generalized, orienting predispositions that act as a filter for interpreting the meaning of experience” p. 83). He also defined point of view as comprising “clusters of meaning schemes [...] that tacitly direct and shape a specific interpretation and determine how we judge, typify objects, and attribute causality” (pp. 83-84).



He went on to clarify that a habit of mind is expressed as a point of view. Still, Mezirow suggested a classification of different types of habits of mind, which can be: sociolinguist, moral-ethical, epistemic, philosophical, psychological, and aesthetic.

Mezirow (1991) defined perspective transformation as:

the process of becoming critically aware of how and why our assumptions have come to constrain the way we perceive, understand, and feel about our world; changing these structures of habitual expectation to make possible a more inclusive, discriminating, and integrative perspective; and finally, making choices or otherwise acting upon these new understandings. (p. 167)

Perspective transformation may result from a single life event like death, illness, divorce, etc., or it may happen over a period of time resulting from a book, discussion, class, etc. In other words, any event that confronts an established perspective can lead to perspective transformation.

From his grounded theory study of women coming back to college, Mezirow (1991) inductively outlined 10 phases for perspective transformation: (1) a disorienting dilemma, (2) self-examination, (3) critical assessment of assumptions, (4) relating discontent to similar experiences of others, (5) exploration of options for new roles, relationships and actions, (6) planning a course of action, (7) acquisition of new knowledge and skill for course of action, (8) trying new roles, (9) building competence and self confidence in new roles, (10) reintegration into society with new perspective. For Mezirow (1997), significant Transformative Learning usually involves three phases: critical reflection of our assumptions, discourse to validate our critical reflective insights, and action. In the first phase, the process is triggered by a life event that represents a disorienting dilemma such as job loss, death, or someone else's opposing point of view, through a book, play, poem, or even training or a class, which cannot be resolved through previously used problem solving strategies. Then, the individual engages in self-examination, which also includes the third step: critical assessment of assumptions. This leads to the fourth phase where assessment results in the individual realizing that other people have gone

through similar experiences. The fifth phase is when the individual explores options for forming new roles, relationships or actions, which includes four steps: planning a course of action, acquisition of new knowledge and skills for a course of action, trying new roles, building competence and self confidence in new roles. The final phase is the reintegration back into society with new perspective. He further noted that transformation may involve some variation of the phases listed and may not occur in this exact sequence.

Mezirow (1991) distinguished three types of reflection: content, process and premise reflection. He described content reflection as “reflection on what we perceive, think, feel or act upon” (p. 107). This is typically found in instrumental knowledge when we reflect on the content. On the other hand, process reflection can be seen as “an examination of how we perform these functions of perceiving, thinking, feeling or acting and an assessment of our efficacy in performing them” (p. 107). In this case, the reflection is on the process of understanding the problem. Premise reflection, however, “involves our becoming aware of why we perceive, think, feel or act as we do and of the reasons for and consequences of our possible habits of hasty judgment, conceptual inadequacy, or error in the process of judging” (pp. 107-108). This happens when we question the problem itself.

As far as Transformative Learning, it is premise reflection that engages learners in transforming habits of mind. While content and process reflection may lead an individual to transform a specific belief, premise reflection enables an individual to see the world and themselves in a new, different way. Nicholls (2001) expanded these concepts of reflection to the higher education context. He proposed that content reflection relates to thinking critically about content in teaching. Process reflection has to do with faculty using the teaching and learning

process to solve problems. Premise reflection deals with posing questions of relevance and responsibility.

In the process, we may transform our points of view by becoming critically reflective of assumptions supporting the content or process of problem solving. In a similar way, we may transform our habits of mind by questioning our premises in defining the problem, i.e., the validity of our assumptions. The transformations in habits of mind can be epochal, when triggered by a dramatic even, or incremental, when transformations happen gradually. The two reflective processes of points of view and habits of mind are commonly found in instrumental and communicative learning. In addition, Mezirow explained that we usually change our points of view by trying on the points of view of another person; however, we cannot do this with our habits of mind. Mezirow added that our habits of mind are unexamined and that we are unaware of that fact. Initially, Mezirow (1991) called these habits of mind “distorted”, which raised criticism, pressing Mezirow to review the term used and proposing a more accepted one: unquestioned or unexamined habits of mind, which allowed for the possibility to later examine, adjust, or discard them if necessary.

Mezirow (2012) explained that transforming a habit of mind may happen when meaning schemes are “incremental”, when transformed gradually over time in a series of events, or “epochal”, when resulting from a disorienting dilemma. He further explained that such disorienting dilemma may be started by a mind-altering discussion, a book, a poem, anything that challenges accepted presuppositions (p. 86). Clark (as cited in Merriam & Caffarella, 1999), in contrast, has expanded the notion of a disorienting dilemma and posited that an “integrating circumstance” (p. 321) might also be a way of triggering a perspective transformation but instead

it might occur at a later moment and be a result of an earlier exploration or search for meaning that is missing and when that is found, transformation is catalyzed.

In addition, Mezirow (1991) described that “reflective learning becomes Transformative Learning whenever assumptions or premises are found to be distorting, inauthentic, or otherwise, invalid” (p. 6). That is, when we are presented with an alternative habit of mind and we reconsider or revise our own belief systems, this learning process becomes transformative.

Mezirow (2000) defined Transformative Learning as:

the process by which we transform our taken-for-granted frames of reference (meaning perspectives, habits of mind, mind-sets) to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so that they may generate beliefs and opinions that will prove more true or justified to guide action. (pp. 7-8)

Mezirow (1991) pointed out that “[n]ot all learning is transformative. We can learn simply by adding knowledge to our meaning schemes or learning new meaning schemes” (p. 223) to interpret experiences. He added that “[t]ransformative learning involves reflectively transforming beliefs, attitudes, opinions, and emotional reactions that constitute our meaning schemes or transforming our meaning perspectives” (p. 223).

For Mezirow (2012), Transformative Learning can be viewed as a way of problem solving in that we define, redefine or reframe a problem. Mezirow defended that Transformative Learning relates to transforming a problematic individual or shared frame of reference in order to make it more dependable by creating opinions that are more justified. For example, in instrumental learning, through critical reflection of our assumptions of content and processes in problem solving, we can transform our points of view. In a similar way, by critically reflecting on our premises for defining the problem, while for example, questioning the validity of our assumptions, we may transform our habits of mind.

Mezirow (2012) also proposed that Transformative Learning may happen through objective or subject reframing. Objective reframing relates to critical reflection on the assumptions of others found in narrative or task-oriented problem solving as in action learning. On the other hand, subjective reframing relates to critical self-reflection on our own assumptions about a narrative, a system, our workplace, feelings or relations, and in the way we learn, including our frames of reference. He furthered his idea by proposing that for a mindful Transformative Learning experience to occur, the learner needs to make informed and reflective decisions to act on his or her reflective insights.

Mezirow's (1978) Transformative Learning theory has evolved over the years and has in its roots rational critical reflection and critical self-reflection. In this process, people examine unquestioned frames of reference with the objective of making them more reflective, inclusive, discriminating, open, and emotionally able to change.

The robust theoretical foundations articulated in detail in Mezirow's Transformative Learning theory has granted it a space to be widely used in research and it seems to have replaced andragogy as the main adult learning theory (Merriam & Caffarella, 1999). In fact, Transformative Learning has been used as a theoretical lens in a variety of fields. However, few researchers have conducted studies on faculty transformation applying Transformative Learning as a theoretical framework in the context of professional development initiatives, particularly when it involves new modalities of learning environments such as online and blended learning. Kathleen King and colleagues Patricia Cranton, Patricia Lawler, and Carolin Kreber are probably the leading scholars in studies using a Transformative Learning lens in exploring faculty transformation in higher education, though the context in which they conduct their research is rather different from the context of this study.

King, Cranton, Lawler, and Kreber have published a number of studies on the topic of Transformative Learning (e.g., Cranton, 1996, 2011; King, 2002, 2003, 2007; King & Lawler, 2003, 2004; King & Cox, 2011; Kreber, 2006; Lawler & King, 2000). Some of their publications have already been discussed in the Instructional Development section of this literature review. Those studies focus more on the intersection between Transformative Learning and professional development where the scholars offered recommendations on how to design initiatives that cater for higher education faculty as adult learners.

Research applying a Transformative Learning lens exploring faculty transformation that stem from their use of technology for teaching and learning is still rare, though. One exception is research conducted by King (2002, 2003) when she examined the experiences of K-12 teachers and higher education faculty taking part in educational technology courses as graduate students. Departing from preliminary results of quantitative data in earlier studies, King later interviewed participants who she identified as experiencing Transformative Learning through analyzing survey, journal, and essay data. King, then, conducted interviews with these participants in order to gain a better understanding of their transformation while graduate students taking educational technology courses. King concluded that there is a meaningful connection between participants' experiences as graduate students in educational technology courses and their perceptions of the impact in their practice using technology in their teaching.

In a similar way, Kitchenham (2006) conducted a mixed-methods study where he designed a workshop for school teachers covering software tools such as Microsoft Office, Apple's iMovie, Web-design software, image editing tools, and WebQuest. Kitchenham asked participants to keep reflective journals, applied questionnaires, conducted interviews, and took field notes in the 8-month workshop. Kitchenham concluded that his study participants

underwent perspective transformations as a result of their participation in his professional development workshop on educational technology.

In yet another study in a context closer in context to the focus of this study, Whitelaw, Sears, and Campbell (2004) examined the experiences of higher education lecturers and instructional designers while they worked together in a partnership program as part of an initiative for instructional development. Their goal was to identify whether teachers participating in the program had undergone Transformative Learning. However, the researchers were only able to gather data from less than half of the participants, which caused their results to be inconclusive.

## CHAPTER 3 – METHODOLOGY

### Introduction

In Chapter 3 – Methodology, I present how the goal of this study was reached. First, I provide a rationale for using qualitative research and for selecting the case study methodology. Then, I describe the criteria for the selection of the setting of this study, its context, and the study participants. Next, I explain the data collection and data analysis methods that were used. Finally, I describe my role as the researcher in this study and the strategies I used to ensure the trustworthiness of this research.

### Why Qualitative Research

The main goal of this study is to identify and understand perceived changes in faculty conceptions of teaching and course design as they participate in an instructional development program to help them design their course in order to implement blended learning. According to Creswell (2007) we conduct qualitative research “because we need a *complex*, detailed understanding of the issue” (p. 40). In addition, Creswell (2007) points out that qualitative research is suitable when “we want to understand the contexts or settings in which participants in a study address a problem or issue. We cannot separate what people say from the context in which they say it” (p. 40).

The qualitative research process can be defined by three interconnected activities: ontology, epistemology, and methodology. When conducting a study, the researcher makes certain philosophical assumptions about the nature of reality (ontology), the nature of knowledge (epistemology), and the procedures (methodology) that will be used. In conducting qualitative research, the researcher carries with him a set of philosophical positions that will shape his ideas,



which guides the questions that will be examined (Creswell, 2007; Denzin & Lincoln, 2005; Merriam, 2009). Creswell (2007) posits the following definition of qualitative research:

Qualitative research begins with assumptions, a worldview, the possible use of a theoretical lens, and the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human problem. To study this problem, qualitative researchers use an emerging qualitative approach to inquiry, the collection of data in a natural setting sensitive to the people and places under the study, and data analysis that is inductive and establishes the voices of participants, the reflexivity of the researcher, and a complex description and interpretation of the problem, and it extends the literature or signals a call for action. (p. 37)

In his definition, Creswell (2007) focused on the process of research, starting from the philosophical positioning of the researcher, moving to the worldview and through a theoretical lens, and then getting to the procedures used in the study, by using a framework that will guide such procedures. This definition emphasizes the research design and a framework for the procedures, an approach to inquiry.

Also, this study is situated within a constructivist paradigm, which recognizes that there are multiple realities that are complex in nature. Denzin and Lincoln (2005) suggested the following about the construction of the nature of reality:

Qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher what is studied, and the situational constraints that shape inquiry. Such researchers emphasize the value-laden nature of inquiry. They seek answers to questions that stress how social experience is created and given meaning. (p. 8)

The interpretive paradigm proposes that knowledge is constructed by individuals and groups - rather than simply discovered as suggested by positivism - and therefore reality is subjective and multiple as seen by the researcher, by the individuals being studied, and by the readers of the qualitative study (Creswell, 2007). In a qualitative research study, although the researcher does not experience the realities of the participants directly, a deeply involved researcher will closely

observe participants' realities composing "thick descriptions" (Geertz, 1973) of their contexts while interpreting ongoing co-constructions of realities.

Consequently, the term constructivism in this study refers to the research contained within the interpretivist paradigm, i.e., constructivism is the stance that what is known has no meaning except for the meaning that is attributed by individuals.

### **Case Study**

To reach the goal of this study, I used the case study methodology. A case study gives the researcher the opportunity to perform an in-depth investigation of a bounded system or multiple bounded systems, focusing on their particularities and complexities, including multiple sources of data and reporting a description with case-based themes (Creswell, 2002; Stake, 1995; Merriam 1998).

In alignment with Creswell's (2007) take on case study research, I too, for the purpose of this study, chose to consider it as a methodology, "as well as a product of inquiry" (p. 73). Merriam (1988) also viewed case study in terms of its end product: "an intensive, holistic description and analysis of a single instance, phenomenon, or social unit" (p. 21). In addition, Creswell (2007) defined that "case study research involves the study of an issue explored through one or more cases within a bounded system" (p. 73). And as Merriam (1998) put it, typically one should be able to "fence in" (p. 27) what one is going to study.

Therefore, this study lends itself well to case study methodology: it is bounded by the people – the faculty members participating in the blended learning program; it is bounded by time as each section of the program happens over a limited period of time; and therefore, data collection is also finite. In addition, Yin (1994) pointed out that case study is an appropriate methodology when looking at phenomenon and trying to explain *how* and *why*, which is exactly

what this research is trying to accomplish since it investigates what changes, if any, faculty perceive in their conceptions of teaching and course design. In addition, in a case study, the context and the phenomenon's variable cannot be separated.

Furthermore, Guba and Lincoln (1981) suggested that the goal of a case study is to uncover the characteristics “of the class to which the instance being studied belongs” (p. 371). Finally, case study is an appropriate methodology when the case is “intrinsically interesting” (Merriam 1998, p. 28), which this study is since there's a gap in the literature particularly as it relates to the issue of faculty changes in their conceptions from their participation in programs to prepare them to teach in blended learning environments.

### **Multiple Case Study**

Stake (2006) defined a multiple case study as “a research design for closely examining several cases linked together” (p. v). In such a study, the primary goal is to understand the issue, paying attention to its complexity and contextuality. The particularities of the cases are important for what they can reveal about the issue. In this research, the cases chosen are all linked together by fact that they (1) involve faculty who participate in a program to help them design their courses to implement blended learning, (2) feature faculty who volunteer to participate in the program, (3) present faculty who teach in the same context, a large Midwestern research university, and (4) faculty are exposed to the same content to reach their individual objectives. Therefore, each case study, or each faculty member, is instrumental to understand the perceived changes in faculty conceptions of teaching and course design.

As I entered this study with no preconceived notions or *a priori* frameworks, I kept my mind open to revising the issues of this research. In fact, as Stake (2006) suggested, a case study is “progressively focused” (p. vi) as the issues may change while the study progresses. When

studying a phenomenon, it is important to present different perspectives and multiple views of what is being studied, hence the use of a multiple case study in this research. While studying each single case, attention was focused on the case specifically in order to learn about its uniqueness and to understand it in depth. According to Stake (2006), a multiple case study examines a “collective target” (p. 6), or a phenomenon, or an issue by investigating different cases. Stake also called this collective target a “quintain” and defined it as the “arena or holding company or umbrella” that encompasses all the cases (p. 6). The study of the cases is the focus for what they tell us about the quintain. Consequently, this study focused on the perceived changes in faculty conceptions of teaching and course design, and the extent of changes that happened in each case. But here too, the “issue question is of more interest to the researcher than is the case” (Stake, 1995, p. 18).

Therefore, I decided to conduct a multiple case study to shed light on this issue. These cases were richly described in an attempt to capture the context and nuances of each case, bearing in mind the importance of understanding the phenomena. The multiple case analysis provides both particular information and insight into the relationships between the cases, unveiling themes across cases, and leading to “improvement of generalizations” (Stake, 2006, p. 12).

### **Setting and Context**

The setting of this study is an instructional professional development program to help faculty design their courses to implement blended learning in a research university. The program spanned over the course of 10 weeks (1.5 hours per week) in an academic semester or offered as an intensive 5-day (3 hours per day) program in the summer. In addition, the program had faculty who represented all schools and colleges in the university. It is relevant at this point to give some

information about the blended learning program as it will help readers situate themselves as far as content and purpose of the program.

### ***The Blended Learning Program***

In this section, I briefly explain the structure of the blended learning program in this study. The program is intended to help instructors redesign an existing course with a blended learning format in mind. The original purpose is to reduce the number of face-to-face meetings and replace them with technology-mediated activities that occur outside of class (Blended Learning Program, n.d.). This model is often called the replacement model (Twigg, 2003) of blended learning and it is one of the goals set forth by the university. Nonetheless, participants are not required to use the replacement model in their course redesign.

In the objectives listed, participants, by the end of the program, are expected to recognize different models of blended learning, articulate course objectives and organize units, write learning objectives for units, implement principles of backward design, design assessments that provide useful student feedback, design activities that support learning objectives, design activities that encourage deeper active learning, design activities that leverage each delivery modality, and create an evaluation plan to support iterative design principles (Blended Learning Program, personal communication, n.d.).

In addition, the outcomes of the program expect that participants will appreciate the affordances of blended and active learning, recognize the value of backward and iterative design, want to implement blended learning activities in their course, want to talk with others about the benefits of blended learning, and share their experience with school, college, institute, department leadership or larger community. Furthermore, the main deliverable of the program is the development of a course map, which will offer a detailed explanation of how the course will

operate, the types of activities that will be developed in order to achieve the course objectives, and an understanding of the types of technologies needed to develop those activities (Blended Learning Program, personal communication, n.d.).

Throughout the program the following content is covered: different models of blended learning; the structure of good course objectives and outcomes and unit learning objectives; the Bloom's Taxonomy (Bloom et al., 1956); Fink's Integrated Course Design Model (Fink, 2013); the process of backward design (Wiggins & McTighe, 2005); the iterative design process; identifying evidence of understanding from students; designing different kinds of learning activities that are engaging and support learning objectives and assessment; providing a flow of activities between activities and from one unit to the next by using the Fink Castle Top Model (Fink, 2013); identifying the different roles an instructor may play in a blended learning course format; creating strategies to help students overcome obstacles in a blended learning course; and creating an evaluation plan for a blended course to guide the iterative course design process (Blended Learning Program, personal communication, n.d.).

The program offers participants two distinct models to help them write their course objectives and associated learning objectives at the unit level and activities that support these objectives: the Bloom's Taxonomy (Bloom et al., 1956) and Fink's Integrated Course Design Model (Fink, 2013). In a practical way, participants are encouraged to write course and learning objectives that are specific, measurable, action-oriented, reasonable, and time-bound. The importance of writing strong learning objectives lies on the fact that they help instructors know what they want to teach, help students know what they will learn, and also help understand how both instructors and students will know what students should know or have learned.

Furthermore, the blended learning program also covers the process of Backward Design (Wiggins & McTighe, 2012), which advocated that when designing curriculum one “starts with the end—the desired results (goals or standards)—and then derives the curriculum from the evidence of learning (performances) called for by the standard and the teaching needed to equip students to perform” (p. 13).

The blended learning program also stressed the development of effective learning activities that support the objectives at the unit and course level. Four models for developing activities are presented. Bloom’s Taxonomy (Bloom et al., 1956) and Fink’s (2013) Components of Active Learning were already mentioned above. Fink (2013) presented three kinds of activities (1) receiving information and ideas, (2) doing and observing experiences, and (3) reflecting and making meaning. Fink went on to say that all three kinds of activities are important in building student learning.

The third other model covered in the blended learning program is William Horton’s (2006) Types of E-Learning Activities where he classified three kinds of activities while urging designers to think about how they will support the intended objectives. The first kind of activities, Absorb activities focus on activities that inform and inspire in order to foster knowledge comprehension and they may include examples, presentations, readings, stories, and field trips. The second kind, Do activities transform the information from the Absorb activities into knowledge and skills such as practice and discovery activities and games. The third kind, Connect activities, aims at linking learning to real-world contexts and may include, among others, job activities, research, and original work.

The fourth model for creating learning activities is Lee and Dashew’s (2011) Types of Student Interactions for online learning, which may also be applied to blended learning. The first

type, Learner-Content Interactions, refers to the interactions between students and content, which can be either generated or provided by the instructor or represent a more constructivist view in which students create their own content. Lew and Dashew suggested that competent instructors allow for the use of both kinds of content where learner-centered activities lend themselves well for active learning. Among these activities are readings, presentations, and student-generated case-studies to name a few. In the second type, Lee and Dashew focused on online learning as they refer to Learner-Instructor Interactions. The authors noted the importance of selecting the kinds of communications tools (online discussion forums, chats, etc.) to be used and the importance of using them in an effective way to support the learning objectives. The third kind of interactions is Learner-Learner Interactions where Lee and Dashew (2011) emphasized the importance of creating a strong learning community that fosters good learning experiences. The course then becomes student-centered. Some examples of this kind of activities are collaborative writing assignments and group work activities.

These different models share a good deal of commonalities and serve as a starting point for designing and developing effective learning activities. They all propose activities to be used towards the beginning of instruction and represent more of a passive learning modality as students have their initial contact with the materials. Then the next kind of activates move to a higher level of student engagement and thinking skills where students have more opportunities to reflect on what is covered, perform, and demonstrate what was learned or interact with the instructor in a meaningful way. Finally, students are expected to make a connection between what was learned with the real-world while also collaborating with their peers to create authentic work.



Finally, after exposing participants to different types of learning activities that can be designed and presenting a flow on how to use these activities, the blended learning program addresses the use of evaluation for the course that participants wish to (re)design in order to guide the iterative course design process. Besides the iterative process that program participants engage in while creating their designs at the course, unit, and activity levels, they also work on planning how they will evaluate whether their designs were successful and met their desired unit learning objectives, course objectives, and overall goals.

It is encouraged that participants develop an evaluation plan that covers the course in its entirety from week one until the end of the semester. Some of the activities suggested in the blended learning program include asking students to write brief notes on what the muddiest points were and why, asking students how the course is going for them (perhaps anonymously), creating short surveys based on unit objectives to check how effectively the unit helped them accomplish these objectives, and having group discussions to gather feedback on how the course design can be improved. These evaluation methods are meant to give program participants an opportunity to gather important feedback about their course and to use this feedback to improve their course, following the iterative design process.

### **Case Selection and Research Participants**

As Stake (1995, 2006) recommended, cases should be chosen not in a sampling manner but rather by to what extent the cases allow the researcher to learn about the phenomenon and also by how accessible the cases are for the study to be conducted. Stake (2006) suggested that in the selection of cases in a multiple case study “it is often better to pick the cases that most enhance our understanding” (p. vii).

In addition, Stake (2006) defined a “quintain” as the whole or “the entity having cases or examples” of what is to be studied (p.vi). He went on to say that “a quintain is an object or phenomenon or condition to be studied” (p. 6). In this study I gathered data related to instructors’ experiences in participating in the blended learning program but looking out for emerging understandings and contrasting these with assumptions regarding their experiences.

In this study, before selecting participants for the multicase study, a survey was distributed to 106 past blended learning program participants. Of those, 59 participants responded to the survey completely. Then six faculty members, three who scored high in the survey, meaning that they rated high as perceiving a change in their conceptions of teaching and course design, and three who scored low, meaning that they did not perceive a change or did so to a lesser extent, were invited to participate in an interview to gather a better understanding of the extent and nature of their changes, if any. All names used in this study are pseudonyms. In addition, some information about the research participants has been omitted to preserve confidentiality. Further information about the research participants selected for the interviews will be presented in Chapters 5 and 6, when I describe in detail each faculty member.

### **Data Collection**

Data come largely from documentation, archival records, interviews, direct observations, participant observation, and physical artifacts (Yin, 1994). Similarly, during this study, multiple sources of data were used to capture the complexities of what changes faculty perceive in their conceptions of teaching and course design.

Therefore, in this study, data collection happened in the following way. The first stage gathered preliminary data related the faculty professional development blended learning program. This was accomplished by examining data collected by the program through surveys

and other data collected during and after each iteration of the program. The preliminary information collected in this stage helped inform and guide my research.

In the second stage of the data collection, I distributed a survey with 106 past blended learning program participants in Fall 2014 (two sections), Spring 2015 (two sections), Summer 2015 (one section), and Fall 2015 (two sections) – there were around 15 program participants in each section. As mentioned in Chapter Two of this dissertation, I used Mezirow's (1991, 2000, 2012) Transformative Learning theory as my hypothetical framework. The survey instrument used in this study was roughly divided in two parts. The first part collected participants' demographic data and the second part aimed at identifying whether faculty had undergone a changes in their conceptions of teaching and course design. The second part was based on and adapted from King's (1998) Learning Activities Survey. Past blended learning program participants respond to checklists, completion statements, and open-ended questions pertaining to their experience in the program. The adapted survey instrument can be found in the Appendix C.

Of those 106 survey recipients, 59 past program participants completed the survey. Then I identified, six faculty members – three who scored high in the survey, and three who scored low – and invited them to participate in in-depth, semi-structured interviews to gather a better understanding of the extent and nature of their changes, if any. These interviews lasted between 40 and 60 minutes each. The interviews were audio recorded, with the participants' consent, and then transcribed. This multiple case study design followed Yin's (2003) logic of replication. The procedures were replicated across all cases.

Furthermore, to confirm that the participants' perspectives were captured and reported accurately the section pertaining to data for each individual participant in the final report was sent back to the respective participant so that each could review, offer further input, suggest

corrections, and request clarification. Then a case description was reported with case-based themes. After this investigation, I conducted a cross-case analysis to share the changes in faculty conceptions of teaching and course design.

### **Data Analysis**

For the data analysis, after collecting the survey data using the university Qualtrics tool, I read and reread the results to help develop questions for the subsequent interviews that would make part of the protocol. I examined the survey data gathered from the 59 respondents collectively and individually. This helped me gain a big-picture understanding of the collective survey results as well as to delve into individual cases in order to identify interesting cases and to further inform the research questions of this study.

As I examined each participant's survey data, I observed their objective and subjective responses in order to identify the extent and nature of changes in their conceptions of teaching and course design, if any. I paid particular attention to instances where participants might have undergone changes according to Mezirow's (1991, 2000, 2012) ten phases of Perspective Transformation, where they indicated and/or described a disorienting dilemma, examples of self-examination, critical assessment of their assumptions, their explorations of possible new roles as instructors, their experimentation of such new roles, a sense of increased competence or confidence in these roles, and re-incorporation into life based on the conditions of this new perspective.

In order to show changes in their conceptions of teaching and course design, participants do not necessarily need to go through every phase or go through them in a particular order. In fact, four phases are critical to deem learning experiences transformative: a disorienting

dilemma, critical assessment of assumptions, trying a new role, and plan to act or act on the new perspective.

The Perspective Transformation Survey results showed that a great majority of the 59 respondents (n=55, 93%) thought there was a time when they realized their conceptions of teaching and course design had changed. Only four respondents indicated that they did not change their conceptions of teaching and course design. In order to represent faculty members in both ends of the spectrum, three faculty members who scored high in the survey, meaning that they perceived as having undergone all or most of Mezirow's (1991, 2000, 2012) ten phases of Perspective Transformation, and three who scored low, signifying that they only went through fewer phases, were selected to participate in in-depth, semi-structured interviews. This allowed me to better understand the experiences of faculty who underwent changes and those who did not or did so to a lesser extent.

The data analysis of the survey responses is presented in chapter 4 in order to break them down according to each part of the survey: demographics, the perspective transformation scale, and analysis of the responses to the two open-ended questions. Specifically, the analysis of the open-ended responses further informed the selection of the six cases for the subsequent interviews as they revealed potential cases that would provide meaningful insight into the research questions.

Furthermore, during the data analysis, I generated and regenerated initial categories, themes, patterns, and codes using a constant comparison method (Strauss & Corbin, 1998). In fact, I built the coding categories that emerged from the responses to the open-ended survey questions and from the interviews as they corresponded to the research questions, the relevant literature, and the theoretical framework. As the themes in individual responses started to

emerge, I started to examine codes across cases. As the process went on, I coded and recoded based on their relevance according to the data and tying them to the relevant literature. I kept track of my own changes in the coding process over time.

Lastly, in the data collection and analysis processes, I utilized tables to help me organize the data referent to the theoretical framework and the findings that emerged. This strategy was useful to ensure that the data I collected and analyzed directly related to this study's research questions. In addition, it helped me focus on specific patterns that emerged in the data in the form of codes that related to specific categories. In the end, this strategy allowed me to more clearly identify what data patterns and codes addressed the research questions.

### **Role of the Researcher**

It is important to point out that my role as the researcher in this dissertation study was to prepare questionnaires and interview protocols, collect and analyze all data, and prepare and present a final report. I also acted as a sensitive data collector because it would be virtually impossible to develop instruments that would be adequately adaptable to encompass and adjustable to the multiple realities that might emerge across the cases.

In addition, it is also important to disclose that I worked part-time (20 hours per week) as a co-facilitator in the blended learning program, engaging in discussions with program participants about their ideas on how to implement blended learning in their courses. In fact, I was a project assistant in the department that co-sponsored the program. Even though I played the role of a researcher and employee concomitantly, I have always been wary of the separation between these two roles. Conscious of the implications of my background and my role as a project assistant, I have taken every measure to perform my research with ethics.

My academic and professional background as a computer science graduate, a Master of Science in Instructional Design, a teacher with over 10 years of experience, and as a professional instructional designer have given me valuable insights in understanding faculty perspectives of the process to design a course for blended learning, performing the roles described above. These insights allowed me to carefully listen to the issues pertinent to the changes instructors perceive in their conceptions of teaching and course design while planning the design of their courses to implement blended learning.

I highlight my past experiences, particularly as a teacher and as an instructional designer, as they have motivated me to pursue a better understanding of the changes in conceptions of teaching and course design while planning for the integration of blended learning. My background has also served to provide examples of how the implementation of technology components in the curriculum can foster deeper reflection of teaching and (re)definitions of goals and objectives, thinking ultimately about what skills students ought have when successfully completing a unit, a course, or a program of study.

### **Trustworthiness**

In order to ensure trustworthiness of the results of this research, multiple sources of data were used, namely questionnaires, interviews, documents, meeting minutes and notes, reports, audiovisual materials, design documents, digital and web-based artifacts, learning objects, participants' and researcher's reflections, participants' unit and course maps, postings on discussion forums, personal communications, and also documents and media collected from the administrative information technology department that were gathered throughout the program. The use of these multiple sources of data has ensured methodological triangulation.

In addition to gathering data from multiple sources, I have had extensive interaction with the research participants as a co-facilitator in the program. Through these interactions, I have been able to better understand the perspective of faculty members as they participated in the program to design their course to implement blended learning and noticed the emergence and frequency of certain themes, issues, challenges and rewards faculty members experience. These opportunities have been of great value while creating and refining the data collection instruments. In addition, these opportunities also further guided the data collection and analysis in this study.

The constant examination of the collected data as mentioned above validated each new piece of data against one or more sources. In this way, data collected in the survey and in each interview were validated with the data from the other interviews and sources. This ongoing data comparison and categorization refined the data collection and analysis processes.

The data unitized and coded into categories emphasized the perceived changes in faculty conceptions of teaching and course design while negotiating the definition of concepts in an iterative process. The emerging categories that contributed or hindered changes in faculty perceived changes in their conceptions of teaching and course design were further defined. This process of constantly constructing meaning also helped ensure the credibility of the research. Stake (1995) recommended conducting member checking, asking study participants for feedback on the documents collected and on the written report so that the data and claims are deliberately triangulated, which was done after the report was written. In addition, I conducted member checking throughout the research process. Member checking ensured that participants' voices were accurately recounted in the final report.



In addition, I counted on at least one peer reviewer to ensure that my involvement with the participants in this study did not interfere with the report causing distortions in my account of descriptions. The peer reviewer(s) helped me make sure the procedures for data collection and data analysis I used during my research were coherent and concise. In my understanding, this procedure has brought “investigator triangulation” and “theory triangulation” (Stake, 1995, p.113). Also, I kept a journal where I recorded my experiences, thoughts, impressions, perspectives, decisions, and questions throughout my research.

It is my hope that this research has identified new phenomena and related theory concerning instructors’ perceived changes in their conceptions of teaching while designing their courses to implement blended learning. It is also my hope that this study will be useful to give recommendations on the design of instructional development programs for faculty to create blended learning courses.

## **CHAPTER 4 – FINDINGS FROM PERSPECTIVE TRANSFORMATION SURVEY**

In Chapter 4, I present the findings of the survey of this study. First, the quantitative data collected will be presented and analyzed. Then the results of the open-ended responses will be presented and analyzed undergirding.

The overarching goal of this study is to identify changes in faculty conceptions of, or the way they view, teaching and course design that result from their participation in a professional development program to help them redesign their courses to implement blended learning. Capturing these changes in conceptions is important because such changes may lead to a predisposition to also change teaching practice in favor of more effective education experiences, student outcomes, and satisfaction.

In this study I used both qualitative and quantitative analysis to gain a better understanding of such changes. The extensive literature search I conducted on Transformative Learning for this study and subsequent review revealed that studies featuring some sort of quantitative data are not common. Therefore, the use of a survey instrument to collect some quantitative data adds to the literature in the way that it offers data that are somewhat scarce. The survey results also helped to inform me in the selection of participants that illustrate instances where past blended learning program participants' responses indicated a high degree of perspective transformation and instances where their answers showed a lesser or no degree of transformation to participate in one semi-structured, face-to-face interview as part of a multi-case study, which will be reported in depth in the following chapters.

The first step in identifying these changes in conceptions of teaching and course design was to conduct a survey to inquiry about the perspective transformation of participants towards

teaching and course design that stem from their participation in the blended learning program. In the first phase of data collection, past program participants were invited to respond to an online survey.

As mentioned earlier, the online survey instrument used in this study, what I called the Perspective Transformation Survey, which can be found in the Appendix section, is an adaptation of King's (1998) Learning Activities Survey, which was developed in conjunction with other researchers to gather data related to the perspective transformation of adults in a higher education context and the learning activities that might contribute to it.

King's (1998) Learning Activities Survey can be divided into four different sections: identifying the stages of perspective transformation as suggested by Mezirow (1991, 2000, 2012); the kinds of learning activities that may have contributed to the perspective transformation; other aspects of life that might have influenced a perspective transformation; and demographic questions.

In a similar way, the Perspective Transformation Survey used in this study included demographic questions and questions pertinent to Transformative Learning. The first several questions were demographic questions and included items about respondents' age, gender, marital status, race, education, and university affiliation. After the demographic questions, there were 11 more questions (including 2 questions with multiple Likert scale sub-items, 3 yes-no questions, 4 check all that apply questions, and 2 open-ended questions), which related to respondents' perspective transformation in their conceptions of, or the way they view, teaching and course design that resulted from their participation in the blended learning program. In the second section of the survey, there was one Likert scale question with 12 sub-items, all related to the ten phases of Mezirow's (1991, 2000, 2012) perspective transformation, plus one yes/no

question, and one open-ended question. The third section of the survey asked respondents about what might have influenced a change in their perspective and what their participation in the program had to do with the change. The last section of the survey asked questions about what other aspects of life might have influenced a change in their conceptions of teaching and course design.

### **Presentation of Demographic Data**

I will now present and analyze the demographic data gathered from the survey. While the findings of this study are not checked against such data, it is important to present them so that the participants and context in which this study took place can be better understood as they are part of the characteristics of the group who responded the survey.

For the Perspective Transformation Survey, invitation emails were sent out to past participants in the blended learning program when I was a co-instructor, which lead to a total of 106 people. The email had a link to the survey instrument, which was hosted on the University instance of the Qualtrics survey tool. A total of 3 invitation emails were sent out for those who had not completed the survey. This part of the study was conducted during the fall semester of 2015. The invitation emails can also be found in the Appendix section of this study. In the first question of the survey, participants checked a box confirming their consent to participate in the study and to have their data anonymously reported.

Of these 106 total past participants to whom the survey was sent out, 66 started it; however, seven of those responses were not completed and thus eliminated from the study; the total number of respondents considered for this is study was then 59 past program participants. Normally, online survey response rates vary between 10% and 40%. This survey had a response rate of 55.66%, which is well over the acceptable response level.

Most survey respondents, 37 people, were female (63%) against 22 (37%) males. Also, most of the respondents were married (n=48; 81%); against some singles (n=8; 14%) and a few divorced (n=2; 3%) and one widowed (n=1; 2%). Besides, most of those who responded to the survey identified themselves as predominantly White, non-Hispanic (n=49; 83%), against a few Black non-Hispanic (n=3; 5%), Hispanic (n=3; 5%), and Asian or Pacific Islander (n=4; 7%).

Furthermore, respondents represented a wide range of departments, totaling 43 different departments from 11 schools and colleges across campus. The department with most respondents was the Spanish and Portuguese with 4 people. Similarly, the school or college with most respondents was the School of Medicine and Public Health with 16 people across 11 departments.

Other demographic data were also collected. As far as the degree of education respondents held, most of them reported they held a Ph.D. (n=40; 69%) followed by a Master's Degree (n=8; 14%). Other degrees mentioned in the survey included JD (n=2), MD (n=3), Doctor of Pharmacy (n=1), DVM (n=3), and Master of Fine Arts (n=1). In addition, most respondents reported they were between age 40 and 49 (n=21; 36%), followed closely by the 50-59 age group (n=19; 32%). There were 10 (17%) younger respondents, between 30 and 39 years and 9 (15%) older respondents, over 60 years old.

As far as affiliation with the university, of the 59 respondents, 14 were Professors (including two Emerita), 13 were Assistant Professors (including one Clinical Assistant Professor), 13 were Faculty Associates (2 Assistant Faculty Associates, 3 Associate Faculty Associate, and 8 Faculty Associate), 10 were Associate Professors, 5 were Lecturers, 2 Clinical Counselors, 2 Senior Scientists and 1 was an Instructional Specialist. All of the respondents had teaching responsibilities.

### **Presentation of Data Related to Perspective Transformation**

Now that the results of the demographic data collected have been presented, I will turn to the aspects of the survey that speak to the perspective transformation of faculty conceptions of teaching and course design as they participated in the professional development program to redesign their course to implement blended learning.

King's (1998) original survey was based on Mezirow's (1991, 2000, 2012) phases of perspective transformation, which listed ten steps that may be present during an individual's process of transformation in perspective: (1) a disorienting dilemma, (2) self-examination, (3) critical assessment of assumptions, (4) relating discontent to similar experiences of others, (5) exploration of options for new roles, relationships and actions, (6) planning a course of action, (7) acquisition of new knowledge and skill for course of action, (8) trying new roles, (9) building competence and self confidence in new roles, (10) reintegration into society with new perspective.

In a similar way, the Perspective Transformation Survey used in this study inquired about respondents' extent of their agreement about their perceptions of change in their conceptions of, or the way they view, teaching and course design that stemmed from their experiences in the program. Five-point Likert scale questions were asked to elicit participants' perspective transformation about their conceptions of, or the way they view, teaching and course design that resulted from their participation in the program.

Below, I present the correspondence between the phases of Mezirow's Perspective Transformation (1991, 2000, 2012), the Perspective Transformation Survey in this study, and King's (1998) Learning Activities Survey.

Question number in this study's Perspective Transformation Survey	Mezirow's phases of perspective transformation	King's (1998) Learning Activities Survey
17.1 - I had experiences that caused me to question the way I view teaching or course design	1 – a disorienting dilemma	Question 1a
17.2 - I had experiences that caused me to question my ideas about my role as I teach and design courses	1 – a disorienting dilemma	Question 1b
17.3 - As I questioned my ideas, I realized I no longer agree with my previous views about teaching or course design	2 – self-examination	Question 1c
17.4 - I felt uncomfortable with traditional expectations of teaching or course design	3 – critical assessment of assumptions	Question 1g
17.5 - I realized that other people also questioned their	4 – relating discontent to similar experiences of others	Question 1e

views about their teaching or course design		
17.6 - I have considered teaching or designing courses in a different way from the usual ways I viewed them	5 – exploration of option for new roles, relationships, and actions	Question 1f
17.7 - I have tried to figure out a way to adopt these new views of teaching or designing courses	6 – planning a course of action	Question 1i
17.8 - I have gathered the information I needed to adopt these new views of teaching or designing courses	7 – acquisition of new knowledge and skill for course of action	Question 1j
17.9 - I have tried out, or intend to try out, new views of teaching or designing courses based on what I learned in the program so that I would become more	8 – trying new roles	Question 1h



comfortable or confident in them		
17.10 - I began to think about the reactions and feedback I may get from my new views of teaching or course design	9 – building competence and self confidence in new roles	Question 1k
17.11 - I took action, or intend to take action, to adopt these new views of teaching or course design	10 – reintegrating into society with new perspective	Question 1l
17.12 - I do not identify with any of the statements above	No correspondence	Question 1m

I will now present and analyze the survey data pertaining to Mezirow's (1991, 2000, 2012) ten phases of perspective transformation.

The first question in the survey regarding respondents' perception of change in their conception of, or the way they view, teaching or course design that resulted from their participation in the professional development program, had 12 5-point Likert scale sub-items that related to Mezirow's (1991, 2000, 2012) ten phases of perspective transformation as listed in Table 1 above. The responses to the sub-items are now presented and analyzed.

The two sub-items to inquire whether participants have gone through perspective transformation were related to the first phase of Mezirow's (1991, 2000, 2012) perspective transformation and tried to identify if participants had experienced a disorienting dilemma. In the first sub-item, when asked whether they had experiences that caused them to question the way they view teaching or course design, most respondents chose "Agree" or "Strongly Agree" (n=53; 88%), and a few said that they were neutral (n=3; 6%) or disagreed or strongly disagreed (n=3; 6%). In addition, in the second sub-item, respondents were asked about the extent of their agreement that they started to question their ideas about their role as they teach and design courses. Most respondents (n=48; 81%) replied they agreed or strongly agreed, while a few (n=5; 8%) were neutral and 6 (10%) disagreed or strongly disagreed. These first two items correspond to Mezirow's (1991, 2000, 2012) first phase of perspective transformation, a disorienting dilemma, which means that respondents encountered times when they were faced with a trigger event that prompted them to reflect on the way they normally view teaching and course design that resulted from their experiences in the program.

However, in the following question, which dealt with Mezirow's (1991, 2000, 2012) second phase of perspective transformation or participants' self-examination and asked if they no longer agreed with their previous views about teaching and course design, there was a bit more disagreement. The results of the responses were much closer. Between the respondents, 22 (37%) said they "Agreed" or "Strongly agreed", while 19 (32%) marked they were "Neutral", and 18 (30%) said they "Disagreed" or "Strongly disagreed" with the statement. This means that even when most respondents agreed that they had experiences that caused them to question their views of teaching and course design, that did not necessarily mean that they abandoned their current

views. This is in accordance with Moore's (2005) suggestion that learners are not very likely to admit changes in their beliefs.

Nonetheless, in the fourth sub-item, when asked whether they felt uncomfortable with traditional expectations of teaching and course design, the results were again pretty close with 19 respondents (32%) saying they agreed or strongly agreed; 19 (32%) "Neutral"; and 21 (36%) responding they disagreed or strongly disagreed. Drawing a correspondence with Mezirow's (1991, 2000, 2012) third phase of perspective transformation, this means that while critically assessing their assumptions, respondents' level of comfort about traditional expectations of teaching and course design are almost equally distributed.

In addition, in the next sub-item, when asked whether they realized others in the program also questioned their views about teaching or course design, most (n=41; 69%) said that they agreed or strongly agreed, whereas about a quarter (n=15; 25%) said they were neutral and only 3 (5%) replied that they disagreed or strongly disagreed. Relating to Mezirow's (1991, 2000, 2012) fourth phase of perspective transformation, we can see that most respondents felt like other program participants were also having similar experiences, questioning their views of teaching and course design.

Now, to gauge whether the professional development program might have promoted a change in teaching or course design, the survey asked whether respondents had considered teaching or designing courses in a different way. Up until this point in the survey, most respondents have generally realized that they had experienced a time that had made them question their views on teaching and course design. Furthermore, they seemed to have noticed that others also questioned their views. The next sub-item in the survey, number 6, asked whether respondents would consider a different way of teaching and designing courses. The vast

majority of respondents (n=56; 95%) selected “Agree” or “Strongly Agree”, while 2 were neutral and 1 disagreed. It can be seen from Mezirow’s (1991, 2000, 2012) fifth phase of perspective transformation that respondents indicated that they have experienced a phase of exploration of alternatives to their teaching and course design.

The following survey sub-item, number 7, asked about their agreement with the statement that they would try to figure out a way to adopt new views of teaching and course design. Again, the vast majority of the respondents (n=56; 95%) answered “Agree” or “Strongly Agree”, while 2 were neutral and 1 disagreed. This indicates that almost all of the respondents have thought about ways of adopting new views of teaching and course design which correlates to Mezirow’s (1991, 2000, 2012) sixth phase of perspective transformation, planning a course of action.

The next phase in Mezirow’s (1991, 2000, 2012) perspective transformation, phase seven, is to inquire whether respondents have acquired new knowledge and skills for a course of action. On the survey, sub-item eight, respondents were then asked about their level of agreement about whether they had gathered the information they needed during the program. Again, most respondents (n=46; 78%) answered “Agree” or “Strongly Agree”, some (n=7; 12%) said they were neutral and others (n=6; 10%) responded “Disagree”. This suggests that the program largely fulfilled the needs for information so that participants could take action on their new views of teaching and course design.

The next point on the survey, sub-item nine, asked respondents about their agreement whether they intended to try out new views of teaching and course design based on what they learned in the program so that they would become more comfortable or confident in them. A resounding 95% (n=56) said they agreed or strongly agreed that they intended to try out new views of teaching and course design; only 3 respondents (5%) answered they were neutral. This

represents Mezirow's (1991, 2000, 2012) eighth phase of perspective transformation which features trying new roles.

The survey then, in sub-item 10, asked respondents to indicate their level of agreement of whether they started to think about the reactions and feedback they might get from their new views of teaching and course design. Most respondents (n=44; 75%) said they agreed or disagreed that they started to think about the reactions they might get; 11 respondents (19%) said they were neutral and 4 (7%) disagreed. This correlates to Mezirow's (1991, 2000, 2012) ninth phase of perspective transformation, building competence and self-confidence in new roles.

The second to last sub-item on the survey that relates to Mezirow's (1991, 2000, 2012) tenth phase of perspective transformation, number eleven, asked respondents about their level of agreement to whether they acted or intended to act to adopt these new views of teaching and course design. One more time, most respondents (n=52; 88%) said they agreed or strongly agreed with the statement. Only 6 respondents (10%) said they were neutral and 1 disagreed. This question reflects Mezirow's tenth and last phase of perspective transformation, which refers to reintegrating into society with a new perspective.

Though the last item on the survey does not have a direct correspondence with Mezirow's (1991, 2000, 2012) phases of perspective transformation, it was important to confirm that respondents actually identified themselves with the statements described above. When asked to state their level of agreement that they *did not* identify with any of the questions they had been asked, the vast majority, 85% (n=51) said they strongly disagree or disagreed, whereas only 7 (12%) said they were neutral and 1 respondent said s/he agreed, meaning that most actually agreed that they identified with the statements they had read.

The analysis of this section of the survey, which relates directly to Mezirow's (1991, 2000, 2012) ten phases of perspective transformation, reveals that the blended learning program seemed to have provided participants with opportunities to reflect on their perspectives and observe the perspectives of others, explore alternative views, plan a course of action, acquire knowledge and skills to take action, build their competence on, and implement their new views. Even though we see in the literature that learners are less likely to recognize changes in their values or beliefs, the survey results show that most respondents admitted going through a change in their conceptions of teaching. It has been reported (e.g., Moore, 2005) that even when people don't recognize having gone through change, there's a chance that they still have since personal change, many times, is not a conscious decision and people are unlikely to recall a specific change in their perspective, belief, value, or conception.

After addressing the ten phases in Mezirow's Perspective Transformation, the next question in the survey asked specifically whether faculty have experienced a change in their conceptions, or their views, of teaching and course design: "By taking the [professional development] program, do you believe you have experienced a time when you realized that the way you view your teaching or course design have changed?" The answer to this question was a resounding "Yes". Almost all of the survey respondents (n=55; 93%) said "Yes" to this question; only 4 (7%) answered "No", meaning they did not believe they experienced a time during the program when their views of teaching or course design changed and therefore did not go through any type of change. This result reveals that the vast majority of the respondents felt the program had an effect on their conceptions of teaching and course design. The responses to this question helped the researcher gain an understanding about whether or not the course had an impact on participants' conceptions.

The very next question was an open-ended question and asked respondents to describe what happened when they realized they changed the way they view teaching and course design. Responses to this question varied greatly but there were some common themes that emerged as well. The analysis of these responses are presented in the next section of this chapter.

The following few questions in the survey aimed at identifying what experiences influenced respondents' change in their conceptions of, or the way they view, teaching and course design. When asked, in a check all that apply question, about who had an influence in their perceived change, 29 (78%) respondents indicated that it was a program facilitator's stance, while 16 (43%) said it was another program participant's stance and 7 (19%) said it was another person's stance. The response to this question was optional in the survey; however, 52, responses, or 88% of the 59 considered in this study, were collected.

In addition, when respondents were asked, again in a check all that apply question, about the kinds of activities in the program that influenced a change in their views of teaching and course design, the activities that indicated the highest number of participants were: In class discussions (n=38; 73%); Planning their course map (n=36; 69%); Self-reflection (n=30; 58%); Completing course activities (n=26; 50%); Assigned readings (n=26%; 50%); Discussion with a course facilitator (n=24; 46%) and; Cases presented in the program (n=24; 46%). On the other hand, not as many participants viewed some other activities as influencing changes in the way they view teaching and course design: Discussion with a co-participant (n=19; 37%); Class or group project (n=16; 31%); Self-evaluation (n=10; 19%); Non-traditional structure of a course (n=9; 17%); Something else (n=4; 8%); Online discussion forum (n=3; 6%) and; Other class activity or assignment (n=1; 2%). Again, 52 respondents, (or 88% of the respondents considered in this study, answered this question.

Still trying to capture what had an influence in respondents' changes in participants' conceptions of, or the way they view, teaching and course design, the next question asked them to indicate their level of agreement that different topics covered in the program influenced changes in their conceptions. Of the 59 respondents considered in the survey, 54 (91.5%) submitted a response to this question. The topics that most respondents seemed to agree having an influence in their conceptions were: Creating Strong Course Objectives and Unit Objectives (n=46, 85%, Agree or Strongly Agree; n=7 Neutral; n=1 Disagree or Strongly Disagree; Mean=4.2); Unit Organization and Absorb, Do, Connect activities (n=42, 78%, Agree or Strongly Agree; n=10 Neutral; n=2 Disagree or Strongly Disagree; Mean=3.96); Learning about Backward Design (n=39, 72%, Agree or Strongly Agree; n=12 Neutral; n=3 Disagree or Strongly Disagree; Mean=3.94); Selecting and Creating Learning Activities for Course Structure and Course Content (n=42, 78%, Agree or Strongly Agree; n=8 Neutral; n=4 Disagree or Strongly Disagree; Mean=3.94); Aligning Assessments to Create Evidences of Understanding (n=39, 72%, Agree or Strongly Agree; n=12 Neutral; n=3 Disagree or Strongly Disagree; Mean=3.89); Learning about Different Models of Blended Learning (n=43, 80%, Agree or Strongly Agree; n=7 Neutral; n=4 Disagree or Strongly Disagree; Mean=3.81); Learning about Different Instructor Roles in a blended learning environment (n=39, 72%, Agree or Strongly Agree; n=11 Neutral; n=4 Disagree or Strongly Disagree; Mean=3.78) and; Learning about Course Evaluation (n=33, 61%, Agree or Strongly Agree; n=16 Neutral; n=5 Disagree or Strongly Disagree; Mean=3.59). The high mean in most of the topics covered during the program that were listed in the survey results reveals that respondents felt that the course content had an influence in changing their conceptions of, or the way they view, teaching and course design.



The survey also asked if there was any other course content that respondents felt had an influence in their conceptions of teaching and course design and some mentioned learning about the following: Situational Factors (n=1); Instructor Presence in an online environment (n=1); Quality Matters rubrics (n=1) – though not covered in the course was listed as an additional resource. Besides, one respondent highlighted the usefulness of links to what others in the course had done (n=1), one other said the open discussions in class were useful (n=1), and still one other underscored “the opportunity to be with people who are planning courses” since “everything in my department is done in isolation” (n=1).

In her original Learning Activities Survey, on which this study’s survey was based, King (1998) was careful to ensure that other significant life events were also considered as possibly having an influence on the changes being studied. Therefore, to account for an impact of such events on the changes, the survey had a question about whether it was a significant life event that influenced a change in their conceptions, or their views, of teaching and course design. Of the 59 respondents considered for this study, 12 (20%) listed a significant life event as also influencing a change: 3 (5%) listed a change of job; 2 (3.3%) retirement; 1 (2%) mentioned divorce or separation. In addition, 6 others within those 12 mentioned other aspects of life such as an interest technology enhanced teaching (n=1), developing a better understanding of how adults learn through another course (n=1), having always looked for better ways to offer classes (n=1), becoming the lead of the design of a new course (n=1), changing role in department (n=1), and, finally, frustration with students that just want the answers (n=1). Since this study focused on changes of participants’ conceptions of teaching and course design that stemmed from their participation in a professional development program to redesign their courses for blended

learning, those who said that another significant life event also had an influence in this change were excluded from the selection for a subsequent interview.

The following question in the survey was also an open-ended question and aimed at gaining a better insight on respondents' experience of change by asking a question about what being in the professional development program had to do with their experience of change in their conception of teaching and course design. Again, the analysis of the open-ended responses to this question will be presented in the next section of this chapter.

In his Transformative Learning theory, Mezirow (1991, 2000, 2012) highlights the importance of self-examination and critical reflection in determining whether the learner is ready to experience this type of learning. In order to find out whether respondents fall in the category of readiness to experience Transformative Learning, the next survey question asked whether respondents thought back over previous decisions or past behavior. In fact, 85% (n=50) of the respondents reported they thought back on their past decisions or behavior against 15% (n=9) who replied "No". In addition, the survey also asked whether respondents frequently reflected upon the meaning of their studies for themselves personally. Again, 85% (n=50) of the respondents said they reflected on the meaning of their studies for themselves while 15% (n=9) said they don't usually do that.

In an attempt to account for significant life events that participants might have gone through while participating in the blended learning program, just like in King's (1998) survey instrument, the survey in this study also asked another question about whether respondents had experienced such an event while participating in the program. This time, 19 (32%) respondents mentioned having experienced a significant life event: 3 (5%) changed jobs, 2 (3.3%) experienced the death of a loved one, another 2 (3.3%) moved, 1 experienced birth or adoption

of a child, and 1 retired. Additional spontaneous answers included, major surgery (n=1), Ph.D. course work (n=1), a health issue (n=1), a broken relationship (n=1), added job responsibilities (n=1), loss of energy because of aging (n=1), having a severe concussion (n=1), becoming a course design lead (n=1), increased workload and decreased mobility due to a chronic disability (n=1), and considering the need for educational technology professional development (n=1). Unlike the previous question about significant life events influencing a change in participants' conceptions of teaching and course design, this question did not ask specifically whether these significant life events influenced a change in their conceptions and its purpose was solely to account for such occurrences.

### **Analysis of Responses to the First Open-Ended Question**

In the Perspective Transformation survey in this study, two open-ended questions were asked with the goal to obtain additional meaningful information related to respondents' experiences during the blended learning program and their perceptions of change in their conceptions of teaching and course design. The responses were gathered from the survey instrument and then analyzed individually to look for themes that emerged from the data.

#### ***Brief Description of Changes in Conceptions of Teaching or Course Design***

The first open-ended question in the survey asked respondents what happened when they realized they changed their conceptions of teaching and course design. To put it in context, the perspective transformation section of the survey, was placed right after the demographic questions and started with a Likert scale question that had 12 sub-items about respondents' agreement to several items relating to Mezirow's ten phases of perspective transformation. The question after that was a yes/no question that asked respondents whether they had experienced a time when they realized the way they viewed teaching or course design had changed – if their

response to this question was affirmative, respondents would be presented with the first open-ended question in the survey. Of the 59 survey respondents, 55 (93%) replied “Yes” that they had experienced a change; 4 answered “No”. Of those who responded affirmatively, 53 provided an answer to the open-ended question: “Please briefly describe what happened when you realized you changed the way you view your teaching or course design.” The following paragraphs provide an analysis of those responses.

The analysis of the 53 responses revealed themes that spanned from respondents’ thoughts of their conceptions before participating in the program to practical and conceptual outcomes of their participation. This report tries to encompass the experiences of respondents as they relate to their changes in the way they view teaching and course design.

#### ***Views of Teaching and Course Design Prior to Participation in Program***

This section of the analysis of the first open-ended question discusses responses that included descriptions of conceptions of teaching and course design participants had before starting the blended learning program. When describing what happened when they realized their conceptions of teaching and course design had changed, some participants tried to give some context to their answers and reported the way they viewed teaching and course design before starting in the program.

For those who talked about that topic, the general feeling was of inadequacy or discomfort with their reality of teaching. For example, one participant noted her discomfort with her teaching when she revealed: “I always knew I did not feel comfortable with the 100% traditional lecture intervention. However, I was not aware until I spoke with others, attended [the program], and began to adapt [*sic*] different practices just how to implement changes.” In fact, she affirmed her discontentment with her traditional lecture teaching style, admitted that she did

not have the knowledge to effect change, and shared that being in the program and speaking with other participants who were in the same situation as hers were ways for her to start using different practices.

Moreover, another respondent made a similar comment regarding the way they viewed teaching and course design before: “I was using a pretty traditional approach (lecture, test) [parenthesis in original] but learned that I could impact student learning much better using new approaches.” Besides, one other participant summarized her feeling of inadequacy regarding her teaching and course design as far as the goals she had for her students: “I realized that the method of teaching and course design that I had started with was inadequate to reach the learning objectives I had for my students.” Learning about new teaching strategies and course design opens up opportunities for changing the traditional lecture format and adopting approaches that are aligned with learning objectives and promote deeper student learning.

Furthermore, other answers in the survey revealed that some respondents felt that they did not receive proper training to teach and that, before participating in the program, they did it mostly out of their intuition. As one respondent noted: “In my previous teaching I relied primarily on my intuition.” Another respondent also indicated her lack of training to implement active learning: “I have always tried to use active learning, just not as systematically as was presented in the [program].” The issue of higher education instructors’ preparedness to teach exposes that even though instructors come out of graduate school fully prepared to conduct research, the training they receive in teaching is, in general, inadequate, infrequent, and not consistent with their needs and desires as instructors. And although, some instructors try to favor active student learning, at times, they feel they do not have the pedagogical knowledge to implement these approaches.

### ***Triggering Thoughts about Teaching and Course Design***

In addition to revealing feelings of discomfort regarding their teaching and course design or lack of adequate preparedness to teach, some respondents reported that the blended learning program triggered thoughts about their conceptions of, or the way they view, teaching or course design. In fact, one of the things that triggered participants to think about teaching and course design that was brought up by respondents was the opportunity that the program offered to share opinions, challenges, and experiences in issues related to teaching, the use of technology, and blended learning. In alignment with the literature of adult learning, participants, in general, felt that it was worthwhile to have a space where they could hear and learn from their peers. One instructor felt that “the opportunity to hear about other people's design for specifically tech-related, online or blended courses or activities was very useful”. Still one other mentioned that the opportunity to speak with others helped her begin to adopt different practices and learn about how to implement the changes she planned.

In addition, respondents also recognized the value of their learning experiences in the program in informing or influencing changes in their conceptions. The survey responses revealed that respondents valued learning about the importance of having clear learning objectives and drawing on backwards design to inform their teaching and course design. For instance, in talking about what helped him decide how to move away from a traditional teaching style, one respondent wrote: “When we discussed the concept of learning & course [sic] objectives as related to specific activities, I found this helpful in solidifying my thoughts about how I wanted to change the traditional teaching of my course.” Besides, after reflecting on the importance of clearly communicating to his students what he wanted them to learn and tying that with the learning objectives, one instructor wrote:

I realized that I can be a lot more transparent with my students regarding what I want them to know as a result of taking my course. I realized the importance of having good unit objectives and aligning these with overarching course objectives.

Similarly, one other respondent shared his opinion about setting clear learning objectives: “I was struck by the emphasis on the need to articulate everything and to set clear goals and expectations at all levels of course design.” One other instructor also highlighted the importance of stating what he wanted his students to learn: “I started to see student learning differently and how important it is not to hide the ball when it comes to my expectations or the ways I plan to assess student learning.”

Furthermore, by sharing her thoughts on what happened when she realized the way she views teaching and course design, one respondent highlighted the importance of having strong learning objectives guide the activities in her course: “It was really the process of stirring good course and unit objectives, then using the objectives to guide activities.”

Moreover, the responses of some participants indicated that although they had already moved away from traditional teaching, they did so haphazardly since they felt they didn’t have the pedagogical foundation as to why and how they were teaching the way they were. For instance, one participant noted that the course assignments and assessments did not match the objectives she had for her students:

I was pleasantly surprised that I actually did incorporate some of the pedagogy regarding teaching and learning without having a 'name' [emphasis in original] for what I did. But, I realized I was following the standard, lecture-exam-writing assignment without really thinking deeply about what exactly I wanted to [*sic*] the students to understand vs. memorize vs. integrate.

What’s more, even a respondent who mentioned she had previous training in pedagogy, though in her opinion that training was “quite ancient”, thought that concentrating on learning objectives was important: “I also saw that I needed to be focused on my objectives instead of just my activities.”

The analysis of the responses above show that instructors learned that having strong learning objectives is important in guiding course activities and assessment and using them as a framework to move away from a traditional lecture teaching style. Besides, they also realized that having strong learning objectives is useful in clearly communicating to students what is expected of them.

When asked to briefly describe what happened when they realized they changed their conceptions of teaching and course design, some respondents indicated that their experiences in the program prompted them to realize new possibilities for their teaching. For example, one instructor realized that there are alternative teaching approaches to what she was using that might be more effective for student learning: “I became aware that there are better, more learner-centered, ways of teaching that are likely to be more effective.” Her view was shared by at least one other respondent who recognized the value of active student learning and of trying to meet the needs of all students: “The active and more engaging learning component and modifying to reach/adapt to the needs of more students really stood out for me as a key component.”

In addition, one other respondent mentioned the possibility of having students complete some of the learning activities before coming to class: “I realized possible benefits of having trainees [students] do independent learning before classes.” In addition, one other respondent was glad to learn he could use out-of-class time for learning, as well: “I enjoyed the idea of setting up the course to do more with out-of-class time than just reading or responding to an assignment.”

One other respondent also shared this feeling of using in-class and out-of-class time more purposefully: “I realized there were things I was doing in class that should be done online (like



watching presentations - passive), and things that were done online that should be done in class (like group work - active) [parentheses in original].”

Along the same lines, one other respondent indicated that he realized he could use his in-class time differently and have more discussions: “I realized that I do not need to talk to every single student during lab or to the entire class about a subject. I can ask them questions about the content instead when they have read through the material and use that as a way to have a discussion.”

For some respondents, participating in the program opened their minds to think about how to introduce more active student learning in their practice by learning about new approaches and adapting their teaching and course design to cater for more students. In a similar way, the program also enabled respondents to reflect on their practice so that activities that can be done independently are designed to be completed at students’ convenience while more meaningful activities ought to be carried out in the classroom with the guidance of the instructor.

Another topic that was brought up in the responses was motivation. Some respondents indicated that, by taking the program, they felt more excited about teaching, were more committed to improve their teaching, and wanted to learn more about teaching and learning. For instance, one respondent wrote that participating in the program motivated him about his teaching and to be more creative in trying to improve student learning: “[I] felt more excited about teaching, which motivated me to use more creativity in teaching with the goal of maximizing student's learning.” Besides, another respondent also mentioned that learning more about teaching motivated him to dedicate more time and effort to change his current practice:

In the process of the [program], I came to get a better idea of how to make some modifications to the way concepts in the course can be developed. The desire to learn about various methods and the willingness to commit more time and effort into modifying current practices received higher priority.

One other respondent also said she felt motivated to redesign her course and to think critically about what really matters for student learning: “It motivated me to redesign my course and think beyond myself and my teaching biases to what is best for the students education. [*sic*]” Still, one other instructor added that he wanted to learn more about other approaches to teaching: “I got excited and wanted to explore more about the new ideas.”

The responses above show that, for some respondents, the program was a motivational factor in feeling more committed to redesign their courses and wanting to learn more about teaching and learning to move away from traditional teaching practices. In addition, some other instructors also reported that they felt more motivated about their teaching in general.

Moreover, mentions of blended learning in particular were also recorded. The answers typically mentioned the advantages that good blended learning design may bring to learning. For instance, one respondent wrote: “I felt excited about the flexibility that blended courses provide my students ... (in terms of when and where we do learning/teaching) [parenthesis in original].” In fact, blended learning has the potential of improving the teaching and learning experience for instructors and students alike.

Furthermore, the program also triggered instructors to question their thoughts about teaching as it made them “more conscious of patterns of teaching”, as one respondent put it. For example, one respondent added that she increased her awareness in terms of questioning how she could improve teaching for her students: “The [program] helped me understand that some of my intuition was correct, but also that I should question my intuition by asking if there are better ways to help students learn.” Besides, one other respondent said he began to think about how to plan his course differently: “[I] started to try to think about different ways to set-up the course I will be teaching in the spring.”

For many respondents, participating in the blended learning program triggered them to think about their courses. Those thoughts were based on concepts learned in the program, including learning about learning objectives and active student learning. Others still reported that the program sparked their motivation toward and increased their commitment to teaching.

***From Changes in Conceptions to Changes in Teaching and Course Design***

Besides revealing aspects that prompted faculty to think about their teaching and course design, the analysis of the responses to the first open-ended question showed aspects that triggered concrete changes in these areas.

For instance, one respondent described that during the program he recognized the assessments he had in his course did not match the learning objectives he had for his students and that prompted him to actually change the way he assessed his students' learning:

During the [program], I realized that my assessments were based on traditional assessment tools (homework, in-class exams) rather than my actual desired goals for the students (project-based applications) [parentheses in original]. I have eliminated in-class exams from *all* [emphasis added] of my courses and am slowly moving from instructor-initiated projects to student-initiated projects.

This instructor had the realization that the kinds of assessment that he was using in his course were not in alignment with the goals he had for his students and thus changed the way he assessed them in order to match the goals of the course. Besides, he mentioned that he is further changing *all of* his courses in the way that he assessed students toward a more student-centered approach so that students will take more ownership of their learning by having them initiate their own projects. It should be further noted that even though the blended learning program asked participants to work on redesigning *one* of their courses, this respondent shared that he is implementing changes in *all* of his courses.

One other respondent added that he became more aware of the degree of engagement for his students and of the importance of having strong learning objectives: "I am more aware of

levels of engagement, clearly stating objectives for each week/module and activities associated with these objectives.”

Some instructors reported they added more active student learning in their courses. For example, another instructor mentioned that the program encouraged her to invest on blended learning for her courses: “I have become committed to doing some aspects of many of the professional seminar I teach in a format that blends pre-class learning within class active learning. More than I have previously done.” Even for instructors who were reportedly already using active learning strategies, the program seemed to have stimulated them to commit even more to adopting blended learning strategies linking together in-class and out-of-class activities to promote active student learning as it is the case in this example.

Besides, one other respondent shared he started using group discussions more frequently even in large classes: “...I realized that it was feasible to organize small group discussions frequently, even in courses with large numbers of students. So, I started to organize small group discussions, and it worked fairly well.”

Along the same lines, one other respondent also reported having changed her course to include more active learning activities: “I used to cover too much content in my non-majors course. After reflecting on this course, I added even more active learning activities than before.”

Also, another instructor learned that she could assign passive learning activities to be done independently by students while using in-class time for more active student learning: “... I realized I could move much of the passive learning outside of the classroom, it freed me up to think of lots of creative activities to do in the classroom to try and solidify the passive learning.”

In addition, responses showed program participants started to use more frequent assignments in their courses: “I have ‘chunked’ [emphasis in original] my assignments into

smaller parts that are closer to be done closer to the time that the material is taught.” One other respondent added:

My hope is that students will take more initiative to learn and understand the material rather than study for the exam. I have used weekly quizzes based on the lecture and assigned reading to encourage students to study the material. These quizzes have feedback on [the Learning Management System] so students get instant feedback on questions answered incorrectly. This feedback directs them to the required text reading.

The decision to introduce more assignments in the courses reflects the instructor’s concern about student learning as he hopes that, by providing more opportunities for students to check their knowledge, they will have a better understanding of the materials as a whole instead of just focusing on the exams.

In addition, by taking advantage of strategies for blended learning, some respondents reported using technology in order to achieve more effective teaching. For example, one respondent noted: “I implemented more focused learning and took greater advantage of technology and better communication with students beyond class time that is F2F.”

Another topic that was brought up when respondents were asked to describe what happened when they realized they changed their views of teaching and course design was the use of active student learning strategies maximizing the use of in-class time with higher order thinking skills activities.

What’s more, one instructor also mentioned that in order to make better use of in-class time, all of his assessments were now available online for students: “I decided to move all graded assignments, including exams, on line so that I could devote classroom time solely for discussions and lectures.”

One other respondent, who was already mentioned earlier, said she realized that instead of talking to her students about a topic, she could ask them questions as a way to have a discussion. Furthermore, this respondent added that she saw her students were actively working

on task during class: “Seeing the other students come- up [*sic*] with the same charts on their computers meant that everyone was doing the work. Individuals did not feel isolated when they encountered difficulties.”

Besides, one respondent appreciated the different modalities to deliver instruction to cater for all learners: “I started to develop multiple ways to provide information and deepen student understanding.” This realization was also shared by at least one other participant who wrote that the main change he made is that now he focuses on how to “optimize incorporating student diversity and different ways of learning into the curricula of my courses. For example, in addition to student-instructor and student-reading assignments, there are student-student interactions that can be effective in facilitating learning.” This instructor has also modified the ways in which interactions take place in his classes by allowing opportunities for students to learn from one another and not just sitting back and absorbing content from the master.

In addition to mentioning changes in their teaching that stemmed from participation in the program, respondents also indicated they made or plan to make changes in their course design as well. For instance, one respondent said she started to actively involve her students and teaching assistants in deciding what is important to have in the assessments: “For the first time, I also included my students (and TAs) in the rubric design (with amazing results!) [parenthesis in original].” Other responses attested to the fact that instructors in effect redesigned their courses or made plans to do so. As one instructor noted: “[I] made plans to implement new course design and teaching ideas in courses.”

Also, one respondent who said he had always used active learning but was not systematic in his pursuit added: “So I just tried to become more systematic in my course design.” Still one other instructor, without going into details, said: “I redesigned my course”

In addition, when one respondent commented on her feeling of inadequacy in relation to the methods of teaching and course design she had started with, as stated earlier, she later added that she changed them to adapt to her newly acquired views: “I redesigned them [her teaching and course design] using blended technology to give students more opportunities to take ownership of the material.”

Furthermore, respondents shared that their attitudes toward blended learning changed as well. For example, one instructor recognized she changed the way she designed her course and was more open to blended learning as she learned about learning objectives and designing instruction with the end goal in mind:

“I think the biggest shift was about designing courses around learning objectives - essentially learning how to teach. I did open myself up to blended learning as a vehicle for course delivery, and am now teaching a fully online course as well as creating blended learning experiences for students - but the more important shift was in learning how to design instruction with the end in mind.”

Besides, one other respondent also recognized the value of learning about backward design to guide and take charge of the course design process:

“I realized that the backward design principle provides an elegant guide to achieve several means- it helps ‘pull’ [quotes in original] the design of the course towards a more logical construct compared to what seems like my previous/traditional ‘push’ [quotes in original] approach often initiated when a learning resource (for example, - a text book or website, or learning experience) [parenthesis in original] served as the starting point or foundation of course design. I also learned that the backward design process creates logical connections between desired outcomes and course activities, and seems more in tune with learner development.”

### ***Reinforcing Current Conceptions***

There were also responses coming from instructors who reportedly had been using active learning strategies already. And even though these instructors did not mention they realized a change in their teaching or course design, they shared that the program served to reinforce previous concepts of active learning that they had acquired before participating in the program.

In fact, one respondent wrote that he had participated in a training program for faculty to teach best practices for “educating adults”, veterinary surgeons in particular, and that the course was “eye opening” and reinforced changes in his teaching style, which resulted in positive feedback from students. He went on to say that the blended learning program “reinforced many of these techniques and tools however there was more stress on blended and flipped classrooms.”

One other respondent who was mentioned previously and shared she had training in pedagogy indicated that the program reinforced her views that the process of “proper course design” takes time.

In addition, one instructor pointed out that the time discussing active learning during the program was not as useful to him since he already used active learning strategies in his teaching. He complemented saying that “that [was] already a significant element of [his] own teaching.” He also noted that he thought the program was a “notch below” his own expertise in the area. This reinforced that the active learning strategies the instructor was already using were in alignment with those presented in the blended learning program.

### ***Challenges to Effect Changes***

While many respondents reported that participating in the program triggered changes in their conceptions of teaching and course design including concrete changes in their practice, other responses also revealed challenges faced when designing for or implementing blended learning as a catalyst for change, reporting the careful planning needed for blended learning design, the lack of recognition of the time and effort such initiatives receive, and the tension between investing and recognizing improvements in teaching versus tenure expectations.

As mentioned earlier, participants in the program were introduced to ways in which to design their courses to adopt more active student learning in their teaching by implementing



blended learning strategies. However, as Garrison and Kanuka (2004) suggested, blended learning can be “both simple and complex” (p. 96). The simplest form would mean a simple replication of traditional teaching practices to a blended learning type of structure. In its complex form, blended learning would entail careful planning toward a more student-centered, active learning approach at all levels. This exact sentiment was shared by one instructor who said: “[I] realized the need for more careful design when creating online environment to make the course flow more apparent to students.” One other respondent voiced the same concern: “I realized (again) [parenthesis in original] while taking the course, how much time goes into proper course design.” Indeed, one of the challenges of good blended learning design is to ensure that pre-class, in-class, and post-class activities are brought together in a coherent and cohesive piece, making their flow meaningful to students.

This careful design for good, solid implementation of blended learning requires an added investment of time. However, instructors, in general, revealed that among the other responsibilities that they already have, and the extra time required for such initiatives, they felt frustrated and overwhelmed. This feeling was shared by one respondent who said:

I wanted to learn more about how to use technology ... The problem was that, in the midst of the term with all my other obligations, I had these realizations and the desire to act on them but NO TIME [emphasis in original] to implement it. That made me feel pretty lousy.

Similarly, other respondents also shared this feeling of frustration in some way. As one respondent put it: “I felt overwhelmed by the amount of work I perceived it would take to create the blended material, structure meaningful assessments of the material, and subsequently assess the students.”

The issue of the lack of recognition of the time and effort invested in initiatives for improving teaching and the tension between that and the requirements to obtain tenure were also

topics brought up by respondents. For instance, one instructor highlighted her mixed feelings between her increased motivation to teach, the lack of incentives to invest in teaching and the pressures to succeed in tenure:

This was concurrent with a general trepidation that our system of course classification, evaluation and evaluation of faculty, especially of junior faculty, is not equipped to account for this. In this sense, there is little incentive to innovate and often a disincentive. The time that such course redesigns take is simply not recognized by people who have not done it. And the value of it is also called into question by some senior faculty. So this was moment of very spilt feelings--an excitement about teaching and a reality check about the pragmatics of succeeding in the tenure track so that I can keep teaching.

One other respondent also felt that there was a disconnect between an expectation to perform better in teaching and tenure pressures as he shared: “I felt more intense pressure than ever to perform well in my teaching and felt conflict between that and tenure expectations.”

Some respondents also highlighted external factors that contributed for a change in their traditional views of teaching and course design. According to some instructors, there is currently at the University an initiative that requires every course in every program to state clear learning objectives. In this scenario, there were also mentions that some students now expect to know how they are expected to perform and at what level, how they will be tested, and what grade they will get according to their performance.

### ***Negative Reactions to Implementing Changes from the Program***

Despite the general positive reactions of respondents about the blended learning program, the changes they have had in their conceptions of teaching and course design, and the conceptual and practical results of those changes, a few responses also had a negative tone to them. These responses were related to participants’ previous knowledge and practices before participating in the program and experiences implementing blended learning that were not successful.

For example, the last comment discussed in the previous section from a participant who already implemented active learning in his teaching can also be taken as a sort of negative

reaction from participating in the program when he said that “[t]he time spent on ‘active learning’ [emphasis in original] and general course design was less useful” since it was already a significant component of his own teaching. In addition, as it was also mentioned before, this participant thought the program was a “notch below” his own expertise in the area. This participant would benefit from a program that was more at his level of experience in the use of active learning and that would focus more on the actual implementation of blended learning strategies.

Moreover, some respondents reported that not all of their attempts to implement active learning were successful. For example, one respondent who was quoted previously commented: “... I cannot say that all the active learning activities I have employed have been successful.” However, this respondent also said that she had acquired knowledge and skills to evaluate why, when and how to implement active learning and the cost-benefit ratio. Despite realizing that not all active learning strategies implemented yielded positive results, this instructor realizes that she is more informed about teaching and that she can now make a better judgement of when, how, and why to implement them.

This experience was shared by another respondent who lamented that the changes he implemented not always worked well: “For one course, it went well; unfortunately, for a second course the changes were not as well accepted. I’m continuing to work on course redesign for that course.” However, it is reassuring that this instructor continues refine the course design for the course where the changes were not as successful. This is in alignment with the iterative design process covered in the program and reinforces that implementing blended learning or active learning is not always a simple process and may require a few iterations to get it right.

Furthermore, one other respondent raised the question that the task-assessment approached implied by instructional design techniques might interfere with the development of intellectual inquiry:

I realize that this very specific task-assessment-task--assessment approach has crept up from secondary ed [*sic*] and it is what the university wants now even in higher level courses. I realize that if I do not learn to incorporate this, I will no longer be relevant or actively participating in the university's mission. I understand some of the utility to be gained but I also see what is going to be lost in the process (a greater nurturing of intellectual inquiry at the higher levels of undergrad learning) [parenthesis in original].

In addition, this respondent also commented that she has noticed that students' expectations have changed over the years and that they are expecting to see clear objectives, know what they are required to learn or do, and what grade they will get if they fulfill each responsibility they have: "I also realize that the student body is changing and it's [*sic*] needs and expectations are going in this direction. It's a "if you can't beat 'em, join 'em" [*sic*] kind of feeling I have."

The concern voiced by this instructor has been object of criticism to some implementations of instructional design strategies that do not foster higher level thinking skills and are based exclusively on mastering factual knowledge and not exploring the varied possibilities of real world applications.

These negative reactions reflect some concerns that a few respondents had and that might also be shared by other participants who did not respond to the survey; the other 44% or 47 past program participants. They are topics that could be worked out or even reflected upon during future iterations of the program.

### ***Positive Outcomes of Program***

The analysis of the survey responses to the first open-ended question revealed that, for the vast majority of the respondents, the program yielded positive outcomes. The topics that were brought up included the opportunity to share opinions and experiences,

Within this context, several respondents reported that their conceptions of, or the way they view, teaching and course design changed. For example, one respondent said: “A realization that my views had changed– for the better.” Besides, one other instructor mentioned she acquired strategies to implement active learning and increased her knowledge about teaching and learning: “I believe I am, in general, more informed about my teaching and learning.”

Furthermore, other respondents reported that they changed their attitudes toward blended learning and technology. In fact, one instructor said he was more motivated to use technology: “I took away greater enthusiasm for integrating technology in the classroom. Despite my generally strong background in technology, I have always been very skeptical about its usefulness. I think I'm more positive about it now.”

In contrast, a few other respondents attested to the value of participating in the program, which adds to the overall feeling that participants learned something useful and incorporated some of that in their own teaching and course design. For example, one respondent wrote: “I think every instructor could benefit from this course.” One other respondent further noted that the informal feedback she got from her students indicated that the changes she implemented in her classes were taken in a positive way by the students: “I have not read their recently completed survey results yet but their comments during the classes indicated the group activities in class helped them really work through and do the material instead of just saying they went through the material.”

Other responses indicated that the program gave participants the knowledge and tools they needed to implement desired changes. As one instructor noted: “I had already changed my views on course design before taking [the program], but the [program] helped me develop a plan to implement those changes.”

Some respondents also said that by participating in the program they now know more about the resources they have available to them. For instance, one instructor noted: “I learned that our campus has more resources than I knew we had to assist blended course development.” And one other respondent added: “I found new tools to add to those I already had for active online learning”

Still, a couple of respondents reported that the realization of their views regarding teaching and learning was a process rather than a sudden realization as one noted: “I would say it was a gradual and cumulative process as opposed to a ‘Eureka’ moment.”

### **Analysis of Responses to the Second Open-Ended Question**

The second open-ended question in the survey asked: “Thinking back to when you first realized that the way you view teaching or course design had changed, what did your being in the [program] have to do with the experience of change?” The purpose of this question was to elicit respondents’ opinions about the influence that their participation in the program had on their changes in conceptions of, or the way they view, teaching and course design.

The analysis of this second open ended question of the survey reaffirmed the findings in the analysis of the responses to the first open-ended question and the emergence of some of the same themes that were previously found, though these themes were fewer since this question was more focused. In addition, the number of responses to this question was lower as 47 respondents provided an answer and those answers were significantly more brief resulting in relatively less data to be analyzed.

The findings of the analysis of the second open-ended question in the Perspective Transformation survey will be reported over the next few sections.

### ***Triggering Thoughts about Teaching and Course Design***

In answering the second open-ended question, some participants reflected on the role of their being in the program and their thoughts about teaching and course design. In addition, a few respondents shared how they viewed teaching and course design prior to their participation in the program as well.

One respondent noted that it is important to have a space where they can meet people who are working on improving and trying new ways of teaching: “I desperately needed other people to talk to who were doing this.” One other respondent shared a similar view:

Before taking the [program], I had never considered different modalities of course design. When I started my job, I was given the curriculum, and have not strayed very far from what I was given. [The program] allowed me to explore many different ways to organize my course and also to plan various types of learning activities.

Similarly, one other participant also indicated that the program helped him realize his teaching practice was not aligned with what he wanted his students to be doing in and out of class:

I've always hated lectures. [The program] helped me realize that I don't have to stand up in front of the class and lecture for hours, nor should I. It helped give me the tools I need to help the students be active in and outside of class.

In addition, another response revealed: “It enabled me to recognize something that was already bothering me at a subliminal level, and it gave me the resources and support to actually make changes.”

In responses above, we can see that the program triggered, in participants, perceptions of inadequacy and desire to change.

One respondent confirmed the issue of feeling external pressure similar to what was found in the analysis of the responses to the first open-ended question. She wrote:

Since the University is asking all of us to provide clearly stated learning objectives in our course syllabi, the discussions and practice provided by the [program] allowed me to understand what this really meant and that it can be very useful to be explicit in this regard. It helped me see how I could do it.

Also in alignment with what was found in the analysis of the responses to the first open ended question, respondents felt they ought to re-examine their conceptions of teaching: “[The program] helped me become conscious [*sic*] of ways I could interrogate my own teaching, through which I hope to develop innovative ways to help student learn.” One other respondent, referring to the importance of creating a course map, shared the same feeling of realization that the choices he made in his course were not based on pedagogical decisions:

I am very grateful for what I learned about building a course map. That exercise [*sic*] was the [*sic*] most powerful for me and made me realize that I [*sic*] many parts of my course were based on assumptions I was making, not on a strategic approach to learning.

This thought was seconded by one other participant when she wrote that “[r]eading the course materials and doing the course map” had to do with changes in her views of teaching and course design.

Furthermore, one respondent emphatically reported that his views of course design changed: “The [program] structure, as well as its learning activities, discussions, and reading materials all helped me to have a *radically* [emphasis added] different view of course development.”

### ***From Changes in Conceptions to Changes in Teaching and Course Design***

As in the analysis of the responses to the first open-ended question in the survey, the analysis of the second open-ended question saw the resurfacing of a few items present in the responses to the first open-ended question such as instructors’ changing their strategies and also using technology for more effective teaching and course design. In fact, one respondent wrote: “[The program] introduced me to specific activities I could try in my courses.” This feeling was shared by at least a couple of other respondents. One wrote “I think the course made me see how to do [*sic*] the changes I wanted to do [*sic*] and I saw examples of new techniques that I wanted to try too”. Another added “Being in [the program] facilitated the process of changing my course



design.” And still one other commented: “Participation in [the program] facilitated change and provided ideas for how to implement change.”

One other respondent added: “[The program] has reinforced my appreciation for techniques and tools to provide students different and varied techniques for learning.” For one other respondent who said he had already changed his view on course design, the program was useful in devising a plan to effect changes: “I had already changed my views on course design before taking [the program], but the [program] helped me develop a plan to implement those changes.” Similarly, one other respondent wrote: “I enrolled in [the program] because I had already decided to try to do something with the course, and wanted to get some guidance in how to make that work.”

Likewise, one response specifically alluded to incorporating active learning in her course: “Since I began teaching 4 years ago I have wanted to try and incorporate creative and dynamic teaching/activities into my classroom. [The program] helped me put those ideas into a more concrete form that actually seems doable.” One other respondent offered a similar opinion: “It opened me up to the technological resources that could help promote active and independent learning.”

Along the same lines, there were a few responses regarding the integration of technology for more effectiveness, particularly as it relates to teaching. For example, one respondent noted: “It helped me identify new tools.” Another respondent was a bit more specific when he mentioned utilizing technology for blended learning: “It reinforced my belief of the necessity of employing the available [Learning Management System] technology for a blended learning course.” Still other appreciated having a better direction for strategies for an online environment:

“It provided direction and useful information on specific approaches to online teaching and different faculty roles in a course.” One other respondent added:

I developed the tools and skills to actually change the way I teach. The structure of it and assignments helped me to actually blend the course as I learned. I don't think I would have the time or knowledge or drive to do this without the course that I took.

### ***Reinforcing Current Conceptions***

Just as the analysis of responses to the first open-ended question revealed that some respondents felt that the program reinforced their practices as they moved away from traditional teaching and course design, the analysis of the responses to the second question showed a similar trend. For one respondent, for example, the program stressed a process that had already begun in his school: “It accentuated a process already begun as a new block director in the transformed medical school curriculum.” For a couple of others, participating in the program was a reassuring experience that their views on teaching were right: “I think I always shared a similar philosophy to facilitators in [the program]--but this was less emphasized by other instructors I had contact with on a regular basis and I felt training affirmed and supported my philosophy.” Another responded noted: “[it] gave me confidence that I was on the right path.” For one other instructor, participating in the program served to advance her views on teaching and course design as she wrote: “I'm not sure my view has changed so much as it has evolved with the new technologies [*sic*] and possibilities.” In addition, one other response spoke to the value of crystallizing the changes already under way: “It solidified my thought process on changes I had already been making, gave me concrete reasons to support changes I had made independently of the course, and gave me new ideas for continuing on this path.”

Another respondent, who was previously cited here as he admitted this was the first time he tied teaching and course design together, also shared a similar perception: “My view of

teaching has been changing for some time, however, the [program] allowed me to really look at options and see how blended learning can be applied.

Still for other respondents, in addition to reinforcing their views, the program offered a systematic approach to allow them to make changes. For instance, one instructor commented: “It helped confirm the change and showed me ways to effect the change.” One other added: “... it was just about better structuring what I was already doing and developing the information technology components.” Another respondent saw the value of reinforcing and applying his previously known concept of backward design in a different context: “[the program] [c]odified and expanded on my understanding of backwards design, esp. within an online/blended environment.”

### ***Positive Program Outcomes***

The analysis of responses to the second open-ended question also revealed what program participants got out of it. In fact, respondents reported they felt motivated or stimulated to make changes, became more informed about, and changed their views on teaching and course design. For example, one respondent stated that, from participating in the program, she ensured that her philosophy and learning objectives were in alignment: “[it] forced me to do the course map an [sic] to make sure my learning objectives were in alignment with my course content and my course philosophy.” In a similar way, one other respondent wrote: “The [program] was really the first time that I tied course design and teaching methods together.”

One other respondent wrote that the program has “molded and will continut [sic] to mold me as I grow as an instructor and move through my own learning processes.” One other instructor wrote: “Taking this course gave ne [sic] new perspectives.”

Some other responses revealed that participants found value in learning about teaching and course design and having “increased knowledge” as one comment indicated: “I learned about some new ways of teaching during [the program].” One other respondent appreciated the opportunity to enhance his courses: “I am aware of a wider range of software and hardware, and have a better idea how it can link to or replace some elements of the courses I teach.” This feeling was shared by at least one other respondent who said: “The course made me aware of a variety of activities that I was not using to enhance my teaching.”

Besides, respondents reported that the program motivated or stimulated them to make changes to their teaching and course design offering “new ideas.” As one respondent added: “I am curious about technology and educational resources. I want to be more informed about what is available.” For others, the program was an opportunity to learn, reflect and hear from others. In fact, one comment highlighted the space for such interactions: “The change happened during the course. The course provided a place to ask questions, get feedback.” Also, one other response about what being in the program had to do with changes in teaching and course design affirmed: “everything--it was the opportunity to read about pedagogy, reflect on it, hear presentations by instructors, and then try to implement it in a limited way.”

## **CHAPTER 5 – FINDINGS FROM INTERVIEWS WITH HIGH SCORERS**

This chapter presents three case studies, where data from interviews with research participants are analyzed. Participants were selected based on their answers to the questions that related to Perspective Transformation survey earlier described, analyzed, and reported in this study. Besides responding to their level of agreement to whether or not they have experienced a transformation in their perspective, respondents also described what happened when they realized their conceptions of, or the way they view, teaching and course design changed, and explored what their being in the blended learning program had to do with their experience of change as they were described in the previous chapter. The goal was to select three respondents who scored high on the survey and three who scored low and also whose answers to the open-ended questions suggested that they were interesting cases to be studied as they might reveal important information about the quintain, as Stake (2006) recommended that “it is often better to pick the cases that most enhance our understanding” (p. vii).

Over the next few sections, data from the interviews are analyzed, starting with participants who scored high on the Perspective Transformation survey. Each of the three cases depicts the story of a faculty member regarding the changes they perceived in their teaching and course design as a result of their participation in a faculty professional development program to redesign their courses to implement blended learning.

Each case description begins with an overview of the participant and overview of the course and the context in which each faculty member teaches. After the overview, each case is then further described in order to better understand the issues related to the research questions of this study:

What changes, if any, do faculty perceive in their conceptions of teaching and course design that result from their participation in a program to help them redesign their courses for blended learning? In what ways have their conceptions of teaching and course design changed as a result of participating in the program?

Next, the cases of the three participants who scored low on the Perspective Transformation survey are reported.

### **Interview with Mika: Findings and Analysis**

#### ***Overview: Participant, Context, Decision to Participate in the Program, and the Course***

The first case described in this section is Mika. Mika is an assistant professor in her early-40's in the field of speech therapy where she does most of her coursework teaching in the undergraduate, Master's, and Doctoral programs. She also has a joint appointment in the Department of Surgery, Division of Otorhinolaryngology Head and Neck Surgery where she runs her research. She has about 14 years of experience, including the teaching she did during her years of graduate school and post-doctoral programs in three different higher education institutions. During the interview, Mika also shared that she had just gotten tenured which she said will go into effect in the next semester.

To offer a better understanding of the context in which Mika teaches, she explained the two different levels in which she teaches. First, she talked about her teaching at the undergraduate level in the areas of anatomy and physiology and how those relate to communications disorders, where she explained that her goals are to get students to care about neuroscience, convey them how it can inform communications disorders, get students to connect to other human beings as a professional in the field, and develop their understanding, compassion and motivation to learn the content in that way.

Then, at the graduate level, her courses are more discipline specific and more clinically-based with one of them being related to anatomy, physiology and diseases but taught in a classroom, not in a laboratory setting and the other being a seminar to provide graduate students with breadth and depth in the field and it is also more related to study designs and professional issues and ethics. In her words, she says that these courses are “very different for each level.”

When asked how she heard about the blended learning program and what made her decide to participate, Mika replied that another professor, who reportedly pointed out that she also participated in the program, told her about it. In Mika’s words, her colleague essentially said: “I know you’re busy but this really changed the way that I thought about teaching.” Mika said that her colleague further encouraged her to take the program and that she tends to trust what her colleague says. Mika added: “So I took it. And I loved it. And it changed the way that I thought about teaching and it *completely* [emphasis added] changed the way I taught.”

Mika added that she, in turn, has encouraged other faculty to participate in the program as well: “I’ve encouraged other people in our faculty – so I think we have a couple of other people who are doing it right now too.”

Just over five minutes into the interview, Mika already spoke to the main research question of this study by saying that it completely changed the way she taught, even without being asked directly whether the program had changed her conceptions of teaching and course design, even though at this point she did not go into details about her experience. Mika thought the program was so effective that she has recommended other faculty colleagues to also take it, which indicates a sort of ripple effect that stemmed from her positive experience.

### ***Changes in the Course***

Next, during the interview, the conversation moved to the course that Mika worked on during the blended learning program. She said that during the program she worked on redesigning one of her graduate level courses but that she also used her newly acquired skills in one of the other courses she teaches in order to offer it completely online, which will be described later in this section. She explained that she restructured her graduate level course and that even though classes met less, students did a great deal of work before coming to class for discussions:

Throughout the blended [learning program], I basically took this actually, you know, kind of rethought how to restructure my course and then took sections of it that was [sic] more knowledge-based and packaged those in more kind of online audio visual lecture. And then they had some, some quizzes that they would do before the in-class portions so that I know that they had read through and absorbed some of the material; they do a little bit of prep work.

Later, she added that some of the course content is available for students at all times online now – she narrated her lectures with slides, diagrams, and pictures. Mika explained that, this way, students do “more of the knowledge acquisition on their own time; and then coming into the course to have more meaningful discussions and skill acquisition and hands-on activities group work.” Furthermore, Mika explained how she connected the out-of-class to the in-class parts of the unit, making the flow between them feel coherent for students:

In the in-person class, I did a shorter kind of version of a summary of the main points. I put up some of the slides of the diagrams or some of the core issues that I was covering in that unit and then, you know, give students an opportunity to ask questions and talk about it.

With this new strategy, Mika felt like she had more time to talk about real life examples with her students: “I have more time to tell them clinical stories about actual patients that I had seen that I think really kind of solidifies it for them.”

By taking her lecture time and moving it online, not only is Mika freeing up face-to-face time with her students, but also, by including quizzes, she has the ability to check her students’ understanding of the concepts. What’s more, she is giving students greater flexibility as to cover



the materials whenever they want and to see it as many times as needed. It's clear that Mika is taking advantage of strategies that good blended learning design affords that were explored during the program.

In continuing to talk about the change to make her lectures available online, Mika added that, after moving her lectures online, she used her classroom time in a different way:

And then we did more hands-on or more discussion or more, you know, group-work where they get information about a patient. Then they see the swallow studies. And then they have to come up with a treatment plan so that we use our in-class time. So we met a little bit. We met less in person, you know, I used to deliver the content and then try to do some of those activities in like a three-hour chunk. So we met only for two hours but they had, they did all of this prep work self-paced. And then we came together and did more skill building and collaborative work and the writing of reports and stuff like that.

By changing what she did during in-class time, Mika has moved away from a traditional lecture format into a more collaborative, active learning, student-centered approach. She reported that she and her students now debrief on studies, engage in more discussions, work on real cases, and develop treatment plans for such cases. Essentially, she cut back her overall classroom time, where mostly what she did was lecturing, from three to two hours per week, and now uses these two-hour chunks solely for more active student learning types of activities.

Mika continued to describe and think about the changes she made in her course and talked about the types of interactions that this new approach lends itself to. In speaking about what her students did in class, Mika added: "they interacted with each other a lot more. They were able to give each other feedback. I built in more peer review which is really helpful especially with the writing, when you're writing a clinical report... it's really helpful." What's more, Mika gave further details about the changes she made in the ways students interacted with one another:

I also did change the way the students interacted. I always had some group work. But a lot of it was outside of class where they would get together and because I would, you know, use a lot of the class time in delivering content and then it was up to them to learn

that content and then they would find times to meet to do their group activities. So I preserved a lot of the group activities but I had them happen in class. And then I did a lot more facilitating and people like changing roles within their specific groups. And things like that.

The changes Mika made in her course go beyond just cutting back on class time and even beyond swapping up activities from in-class to out-of-class as some opponents of blended learning might criticize. In Mika's newly redesigned course, students now have more opportunities to actively participate, to take ownership for their own learning, to learn collaborative, and to develop themselves not only in the discipline but also preparing them to learn in multiple ways, changing the learning experience entirely from a lecture-based format to a more engaging experience. The changes that Mika has implemented are in alignment with strong blended learning course design approaches and provide a well-planned integration of technology-based instruction with face-to-face time since she changed her teaching and instructional strategies, acting more like a guide as opposed to a lecturer – changes that have all been suggested by proponents of good blended learning design.

While reflecting on the changes that she has made in her course, Mika said that even though she did not make many changes in the content, she did change her course in significant ways:

So the actual content hasn't changed as much. It's more about how I deliver it and what I want the students to know and at what level I want them to know. So knowing about something versus you know having something memorized ... What are the big picture things that I want them to remember for the rest of their lives? What are the overarching themes for the course in general? And then for each kind of section of it?

And later Mika clarified it further saying that during her course redesign process, she also adapted some of the course content to focus on what she felt was important for her students. She stated that her course content changed a bit and that she was more careful about selecting them,

thinking deeply about what she wanted students to know and what was not really relevant to guide her decisions about what content to keep, what to adapt, what to remove, and what to add.

Besides, in alignment with what was found in the previous chapter in the analysis of the responses of the open-ended survey questions, Mika also felt that having strong learning objectives and making clear what students are supposed to know was important:

I wrote my learning objectives as such so that it is pretty clear about what they need to be doing for the course and so. Then when I present the material, I think I'm more clear about 'these are things that you need to memorize' or 'these are the things you're going to need to know for the rest of your professional career, these are things that you will need to use clinically to make decisions versus I'm going to talk to you about a particular disease and it's going to help pull all the pieces and parts that you've learned about in this course' ... So I sort of draw everything more together, I think, as a result of that. If that makes sense.

As she described her redesigned course, Mika revealed that while she did not make significant changes in the content of the course, she did change the way she delivered it. However, the most important aspect that Mika mentioned, perhaps, is the backward design perspective that she implemented in her course redesign, distinguishing what she values as worth being familiar with, important to know and do, and "enduring understanding" (Wiggins & McTighe, p. 14) and really thinking about what is important for her students and taking the extra step to adapt content, taking out some portions of it and adding others, and ultimately taking the advantage of this redesign process to take a critical look at her course in its entirety. Moreover, Mika also focused on writing strong learning objectives paying particular attention to at what level she wanted her students to perform cognitively and communicating that clearly to her students as well, having, in the end, a greater sense of cohesion in her course.

The conversation went on, offering an opportunity to probe deeper into the changes in her course and communicating strong objectives to her students, and when asked why she decided to

make such changes, Mika explained that she wanted her course to be more meaningful for the students:

I felt that it would be more meaningful for the students. I felt like if they weren't just memorizing facts, and then giving those facts back to me on the exams, they could actually see how all of the different things that they were learning fit together, to actually help them to understand their place in the world. What communication is, what happens when communication is affected, how devastating it can be.

And she went on to add that she wanted students to see that besides learning the content to satisfy a science or major requirement, she wanted each student to see the knowledge they acquired with a broader lens and having more time to discuss these issues in general, "... you have a better understanding of yourself in this world and other human beings." Furthermore, from a more holistic perspective, Mika reflected: "I just felt like, you know, that's, I mean, isn't that part of the reason why people go to college, too?"

The changes Mika made in her newly redesigned course were purposefully planned, taking advantage of the affordances of a well thought-out design of blended learning, not only including clear goals and objectives but also connecting content to the real world and the role of students as future professionals. Mika has attempted to achieve this by increasing student engagement, offering opportunities for more authentic learning experiences, thinking about her course more holistically, and caring about learners as individuals and encouraging them to care about their role in the world as well.

In addition to giving students opportunities to interact and ultimately learn from one another, Mika also mentioned that she changed the way she assessed her students moving away from traditional assessment methods:

I went away from ... two exams and a final, kind of thing, and an end of the year presentation which was just like standard bread and butter kind of how we always did it and I did more frequent online quizzing pre- and post-unit. So more frequent re-visitation of the material. And then I put in more assignments that were writing-based, collaborative in nature. They did a lot of peer editing. And so I got away from exams. I

did more quizzing and more projects. And then I also did a group presentation at the end... They could learn more deeply about a topic that was going to be relevant to them later on in their careers.

She emphasized that she preferred this method for her graduate students because they were trying to do clinical problem solving and it can be challenging and intimidating at times and by having students work in groups, everyone has something to contribute and that ends up building their confidence. Besides, she reported that her learning activities also changed in that she did “more in class collaborative activities and less assignments outside of class on their own.”

In the course redesign process, Mika was careful to make her assessments reflect the changes that she had implemented in her classes, bringing more authentic types of assessment that are more closely related to the new learning outcomes she had written for her students. Introducing collaborative, writing-based and project-based types of assessment gives students an opportunity to learn from each other and practice higher order thinking skills, while having the option to focus on what might interest them for their future careers.

Then the interview moved to talk about course evaluation when Mika spoke about evaluating her own course. She said she had a specialist come in to talk with her students about what was working and what wasn't in the newly redesigned blended course format. She also complained about the standard course evaluation provided and required by the department saying: “I don't find it helpful at all, actually.” She also commented that since the evaluations are anonymous, she doesn't usually receive helpful feedback and that still a few students use them to vent their frustrations, and when there are suggestions, it's impossible to get more clarification on the feedback received. She said it would be much more useful if she could talk with the students who provided feedback and ask: “‘You said this was too hard’ or ‘there was [sic] too many assignments.’ Which assignments were too many? Which ones were redundant? Which ones were really super helpful?”” Mika regretted that there's no opportunity to take these few

comments and probe deeper into the issues that come up so that they can be used in future iterations of the course. Therefore, in addition to the standard course evaluations, she said she usually has frank conversations with students who she bonds with the most and asks them what worked in the course and what didn't.

It is clear that Mika sees course evaluation as a very important component of the iterative process to be embedded in the overall course design when she takes the extra effort to talk with her students frankly in order to find out how her course can be improved. Indeed, this is part of the iterative design process since learning from previous iterations of a course can guide instructors to make modifications in the future. Such approaches have the potential to improve student satisfaction, which in turn is important as it helps create a favorable climate for students, increasing demand, and driving course, curriculum, and program planning.

As the interview progressed, Mika shared her feelings about the importance that teaching had for herself among the other responsibilities that she had as an assistant professor. She commented that, in her department, if instructors don't want to, they don't really have to improve their teaching and that they can get by receiving fair student evaluations. However, she stated that not investing in her teaching makes it uninteresting and that she has a personal determination to improve her teaching which makes her feel more excited about it: "You kind of get bored after a while. It's more interesting for me... And I feel like I am more engaging. Because I have like a cause that I'm talking about versus just like: 'this a neuron. You have to memorize this'" [mimicking a very slow boring voice on purpose].

### ***Changes in Conceptions of Teaching and Course Design***

After talking about the modifications in the course from objectives to evaluation, the interview moved to explore whether Mika had changed her conception of, or the way she viewed, teaching

and course design from participating in blended learning program. When asked whether she thought she had changed the way she viewed teaching and course design, Mika replied: “Yeah. Absolutely.” And she recognized that, before participating in the program, she lacked pedagogical knowledge: “it [participating in the blended learning program] was a constant learning process for me. I didn't know that much about teaching pedagogy.” However, she felt like most of what she was already doing as an instructor was right: “I felt like I was doing that [using the strategies that were being covered during the program] kind of already. It probably was about sixty to seventy percent... I was relieved like: ‘OK. I'm doing some of these things already.’”

Mika also judged that now she has more ownership over her course design:

I just have some really concrete ways of thinking about it now. Ways to organize what my goals are for the semester, what my goals are for the course, for each unit. And then how to organize my course around that versus having it just be content driven.

In addition, she stated that she now has more control over her course because she has acquired the knowledge to work on those aspects: “And then I had frameworks and approaches and terminology so that I could actually understand what I was doing.” She credits it to what she learned in the blended learning program: “during that blended [learning program], they gave us, you know, a wealth of materials.” Mika was emphatic on how it affected her teaching and course design:

it gave me a framework, it gave me a deeper understanding of pedagogy, a deeper understanding of what I wanted to do, you know, a deeper understanding of how students learn. It really changed everything for me. Yeah. It's the best thing I could have done for my teaching for sure.

In comparing how she views teaching and course design now to before participating in the program, Mika said that she is more aware of all that is involved in teaching and course design and plans to keep on learning about it: “I definitely have a lot more knowledge. I mean I feel like

I could be a life-long learner in this and that's what I plan to continue. I feel like I have a lot more skills. I have a better perspective.”

What Mika reported shows that although she felt like she was performing her teaching well, she didn't feel like she had the pedagogical knowledge before and that she learned it during the blended learning program. She reflected that now she has a framework to think about her teaching and course design as opposed to having content drive her course. Good professional development opportunities have the potential to change instructors' perspective on their teaching. These change are manifest in significant changes in the course through course design and consequently teaching. The ultimate promise of good blended learning design is to take a course and change it into a transforming blend, which fosters a fundamental shift in pedagogy.

### ***Final Remarks***

The last section of the interview asked if Mika thought that other faculty to should take the program, to which she responded: “My advice would be to absolutely take the program. You know, the semester long blended learning program had a really good time effort benefit pay off.”

In fact, in further speaking about how the program changed her teaching, Mika asserted: “I wish it was mandatory.” This statement caught the interviewer by surprise, then he giggled lowly and Mika quickly interjected:

I'm serious. I wish it was mandatory for incoming faculty and then you got to buy out, you know, you got to replace one of your courses with actually taking this course because I feel like it sets you up with skills and knowledge that you don't necessarily get as a doctoral student or post-doc. And I just think the transition to being a professor would have been much better if I had more of that earlier on.

In addition, Mika elaborated on the issue of faculty preparedness to teach specifically. “I think the gap is in teaching and learning, you know, thinking about teaching, thinking at least from my experience...” And later she added: “I do think there's a huge gap in your post-doc, you know. At least in the sciences they're really focused on getting, you know, publications out and your grant



program going. And not much teaching at all.” She also recognized that she and other professionals in her field are fully prepared to do research: “We do a great job of preparing them on how to design and execute experiments, how to publish papers, give scientific presentations, and how to write grants.” And then later she added: “I think there is a lack of understanding the many different ways you can teach things”, alluding to the fact that most faculty don’t receive proper training to teach. Then she went on to say that, while she feels like professionals in her field are prepared to conduct research, she also feels that preparing graduate students to teach is not adequate: “we try to [prepare them to teach] – they have teacher requirements. I try to pass some of this stuff along but there is not a good structure for it.” She then reflects on her own preparation for teaching by saying:

Even for myself. They are like ‘here teach this course.’ And I had syllabus and materials but I didn’t really know how to think about teaching. I think I wasn’t really quite clear on what exactly I wanted the students to do. So I just did it how I was taught. And that, you know, I think I did a pretty good job. I think I had some really excellent instructors.

And when comparing her previous teaching practice to what was being covered in the program, Mika recognized what she was doing it right from experience: “When I took the blended course and I was actually learning about why I was doing some of the things. I thought excited like: ‘OK. I’m doing this. So that’s good. Here’s why I’m doing this,’ you know.”

While reflecting back on the impact that program had on herself, Mika opined that she wished the program was mandatory. She explained that the program offered her skills and knowledge that she had not acquired in her years of graduate school and post-doc programs, therefore, she felt that it could be beneficial for other faculty as well. Although graduate programs excel at preparing their students to be successful in their disciplines, they rarely provide opportunities for instructor training. Therefore, many faculty, just like Mika reported, feel like they do not receive adequate training or experience in teaching or in other

responsibilities, including service and administrative duties that faculty are faced with when they are hired to teach in higher education institutions. In addition, when new modalities of teaching are added to mix, like blended learning, many instructors feel at loss if they are not provided with quality professional development and support.

Mika also recognized that participating in the blended learning program involved a great deal of commitment but that it was worthwhile: “It’s like exercise, right? Like, you don’t want to go do it but you’re never sorry that you did it.” She also pondered that no matter where faculty are in their career, participating in the program can always be beneficial and motivational to improve teaching:

As an incoming junior faculty, maybe not your first year if you have to set up your lab. And that’s really important to your department but it’s a really great thing to do right away. Even if you do it as a post-doc but there’s never a bad time to do it either. I mean, even if you’ve been teaching for thirty years. You might do a lot of this stuff. But it’s guaranteed it’s going to spark something and I think it’s really good for reinvigorating yourself.

She complemented that it may also be advantageous for faculty as instructors:

And then in terms of the actual instructors, you’re going to have better courses. And you’re going to have more engaged students. It’s a lot of work up front. But if I find my teaching is less effort because I have that content up, right? So it’s not me delivering the same lecture year after year. I might tweak it, I might change it a little bit but my effort is going into other things that are better for the student versus me just like, you know, letting the knowledge roll over them that’s coming from my mouth but I think you need to incentivize the faculty because we are spread so thin already.

In reflecting on her own experiences while taking the program, Mika said she would definitely recommend other faculty to participate in the program as it could be beneficial for them at any point in their career because they would certainly get something out of it. Again, this confirms the general notion that many faculty do not receive adequate training to teach and therefore lack important pedagogical knowledge to guide them in their teaching and course design. Moreover, in most institutions, the opportunities for faculty professional development are few at best.

Although participating in such initiatives may prove to be demanding particularly as it involves a great deal of work and time commitment upfront among other responsibilities, there are going to be benefits that, in the long run, may reduce the amount of work faculty have to put into their teaching, allowing them more time to work on different aspects of their courses to make it more engaging and to focus on specific needs of the students.

Next the conversation turns to Mika's perceptions about departmental administration initiatives, incentives, or support for participation in the blended learning program and in faculty professional development in general. Mika lamented that the department doesn't have a solid structure for professional development opportunities for faculty: "We don't have a lot of structure for professional development here necessarily that's encouraged by departments although it exists on campus." She mentioned two opportunities but complained that she herself was interested in developing as an instructor and started to look for them and added that such efforts are not encouraged or incentivized by the department: "I don't see a lot of departmental push to do this or even incentive."

Mika further noted that there should be some sort of incentive to participate in such professional development programs and that, in the end, it benefits the department. She suggested releasing faculty from committees, decreasing their teaching load through course release or by sharing a course, or even by taking a sabbatical to redesign courses. For her, the key point is to give faculty incentives to work on their courses since in the end it benefits the department: "Just really incentivizing people to do this because I think it has a huge payoff for the department."

She called attention to the fact that her being in the blended learning program had an added bonus for herself and for the department. With the knowledge that she acquired during the

blended learning program, she, along with a colleague, redesigned yet another course she was already teaching face-to-face to offer it as a completely online summer course which generated additional revenue for the department. She remarked that it was beneficial for the department even in terms of money: “We developed a whole online course that we now have summer enrollment for. That’s money for the department that wasn't there and it serves a need, you know, the students need this background information before they go to graduate school.”

She also lamented the fact that the teaching component of the job of faculty members is not recognized as of great importance and that it does not receive as much importance as research where the tension between teaching and research for tenure always arises:

I mean and teaching is part of your tenure package but it’s not - and you can go up on teaching, for some departments it is very important and maybe other departments are different than mine. For mine, they're really, you know: ‘Be a solid instructor.’ But there was no push for me to develop, except for other faculty members. But I think in terms of the culture of the department or the college even, didn't seem like they cared if I did this [participate in the blended learning program] or not. So I just feel that you have to incentivize people and value it as a department.

While sharing her thoughts about departmental administration in regards to faculty participating in the blended learning program, Mika indicated that there should be more incentives for faculty participation. Initiatives for faculty professional development, unfortunately, are not very common in higher education institutions, particularly, research institutions and when they do exist, they are often not a part of a structured program. Moreover, few institutions offer incentives for faculty to participate in such opportunities and these incentives are most of the time in the form of financial compensations and rarely in some sort of course release. In fact, while many institutions recognize that offering incentives for faculty participation in professional development could be one of the major encouragements for faculty participation, this lack of incentives has been voiced as one of the main concerns of faculty to put time and effort into improving their teaching. However, incentivizing faculty is important not only because they

already have a heavy workload but also because when designing a course to be delivered in a different modality, faculty may face risk and discomfort.

Finally, when asked how the structure of the blended learning program worked for her, Mika shared that she didn't really have much to say in terms of what could have made her experience better and that she felt hard pressed to give any sort of useful suggestion during weekly program surveys: "I was really hard-pressed to come up with that." However, she thought that if faculty were given more in-class time during the program to allow them to work on their courses since they are already overwhelmed with so many responsibilities, it could have been beneficial for her. However, she quickly added that it might just be a personal preference and that other participants might just want to know what they should work on and do that on their own time.

Overall, Mika thought the program was worthwhile and that she did learn from the program:

I was just appreciative that it was available to me and I was surprised at how much I've learned and how much it motivated me. I think that it is not always easy to do, you know, especially because teaching is this kind of this other part of what you do that tends to get put to the bottom of the list sometimes, although it was really important to me. And I was really thankful to be able to actually have the support and the tools to do this.

In addition, according to Mika, the support that she got during the program was important to her:

Everybody was really excited about it. And, you know, constantly checking in and checking in after that, you know, there's just, there's things available at all times. That's really important. And I did feel very supported I felt like being part of the larger community. I felt more connected with the university. I felt valued.

Mika was appreciative to have had the opportunity to be in the program and felt motivated to work on her teaching. Similarly, when faculty decide to go through the endeavor to redesign their course for blended learning it is important to feel as part of a community and to have a

space where they can share their perspectives and discuss what has and what hasn't worked for them while getting ideas on how to implement their design.

One more time, Mika spoke to the importance of giving faculty some form of incentive to participate in professional development programs, particularly some sort of release of one or more of their duties so that they can dedicate time to work on their teaching. In fact, one of the promises of blended learning is that it has the potential to be cost-effective as well as bring advantages for students, by offering more flexibility, and for faculty, by moving them gradually into the use of different pedagogy and technology. Furthermore, a well-planned faculty professional development program should offer opportunities for faculty to voice their needs and

In her final remarks, Mika again mentioned making participation in faculty development programs mandatory since she thinks it is such a valuable experience. But she quickly pondered and noted that it might not be a good policy as it might bring a backlash if this requirement were to be instituted. She continued to talk about the issue of providing incentives for faculty and suggested one more time that it would be useful to have a mechanism to incentivize newer faculty by freeing up time for them to participate in professional development initiatives, claiming that it would make their teaching a lot easier in the long run. Furthermore, she pointed out that “it would pay off for the department in the long run... The university and the departments and the professors would see those benefits.” Besides, she regretted not having participated in the blended learning program when she started teaching as a professor: “I wish I would have done this when I first got here.” And to finalize, she summarized how she felt such programs should be seen on campus: “Early. Often. Supported. Incentivized. [brief pause] Valued. Right?”

concerns, valuing them as adult learners and giving appropriate support for them to implement the changes they wish to.

### **Interview with Gina: Findings and Analysis**

#### ***Overview: Participant, Context, Decision to Participate in the Program, and the Course***

Gina is a Faculty Associate in a foreign language department. She holds a Ph.D. and is not in a tenure track position. She has over 30 years of teaching experience with 16 at the University. Besides teaching upper level language courses, she is also a coordinator of one of the language courses offered by the department which offers about 26 sections a year. Gina explained that the class sizes in her courses are typically between 12 and 25 students. She heard about the blended learning program from an email she got and decided to participate out of her own motivation and also because she saw that her field is changing and that she wanted to explore what else she could learn to add to her repertoire so she was looking for “something new to do” as she commented: “A little bit of boredom prompted it. And also the field is really changing. And I don’t always agree with the changes but it is changing anyway. So I thought: ‘let me see what I can learn.’”

To get a better sense of the context in which she teaches, Gina talked about the changes in her field explaining that in language courses, there used to be exclusively classroom teaching and that students would do their homework out-of-class, leaving the only opportunities to practice the target language, the actual production, during in-class time. She pointed out that technology has been responsible for changing some of the landscape in her field: “Now the technology's gotten more sophisticated. You can assign YouTube videos where students get to hear authentic language and things like that. Textbooks come with lots of bells and whistles.” However, she pointed out that she teaches upper level language classes and textbooks at that

level usually don't have as many resources available for students to practice on their own and especially for herself to use as an instructor. She added that textbooks at the beginner level get the most investment in terms of technology innovations and then the intermediate level lagging behind a little with the upper level textbooks offering next to nothing in terms of technological enhancements.

She explained that for the course that she chose to work on during the blended learning program, a business foreign language course, which is an advanced language course, there is only one textbook that has technology available but it is not very suitable for use as a class: "it has a lot of technology in it... But none of them [*sic*] connect to anything. So it is good for the user but it's not good for a class ... it's just hard to bring it back to the group."

Gina decided to redesign her business foreign language course because she saw students were not satisfied with the classes in the certificate program they offer: "So people weren't very satisfied with this class. And so I thought OK maybe doing something different, doing it different would increase satisfaction." And she added: "I just felt like the class wasn't as successful as I wanted it to be. So I thought OK let's try something new."

### *Changes in the Course*

The next part of the interview explored changes that Gina made in her course. She spoke about the changes that she made as a result of her participation in the blended learning program. She thought her participation in the program was a motivational factor to implement changes:

So it's not like I had all these ideas that I wanted to implement and [the] blended [learning program] helped me do them. I didn't have any ideas. Frankly. I just like, I was like: 'Oh God. I'm going to teach this class again. What can I do? How could I make it more vibrant? How can I?' And so I did [the] blended [learning program].

In explaining the changes that she made, Gina said she decreased the number of class meetings and included other types of online activities. To better cater for students' needs, she dropped



most classes on Fridays and added opportunities for students to work on their own. However, because of a class conflict that some students have on Wednesday, she was thinking of swapping the days, when they typically don't have classes, from Fridays to Wednesdays, to avoid the conflict. In order to do that, she planned to gather student input and pointed out that she would take advantage of technology so that all students can have a say anonymously without feeling any pressure and this way they would be more honest and state their true preferences, which she added is sometimes one of the biggest problem with students.

In redesigning her course and changing the flow of activities between in-class and out-of-class, Gina has had more available in-class time and has also changed the way she assessed her students. To illustrate the changes she has made, she gave an example of an activity when, in the past, students would practice one particular set of activities ten times over the semester but would only get assessed three times. Now that she has redesigned her course and uses technology as a way to implement changes, she made the following comparison:

I would select three people to come over and do it with me. So then over the course of the semester they had to do all of them but they only got evaluated on three. That was their grade ... Now, what I can do, which is in some ways more work for me, is they all have to do the same exercise. And so they all get evaluated all ten times. So they get extra practice. But I'm evaluating a lot more. But I did learn how to. Because I would only, before evaluate three students, and now I'm evaluating twenty-five students for every activity... So it's good for the students. I think they get more practice.

And she emphasized that this approach is better over what she had in place previously: "I don't think going back to the old way is a feasible idea because they're getting so much more feedback. That's one thing that technology has been good for and I don't spend all this time in class doing it."

Later in the interview she reinforced the benefits of this new approach for the quiet students which gives them more equal opportunities to participate in their comfort zone:

I think it's giving students more opportunity to participate ... twenty-five students is kind of large for a language class. And so sometimes the vocal students get lots of practice, lots of feedback. And then the really quiet ones don't. This doesn't let the quiet ones get short shifted. Everyone gets treated more equally, I guess. Introverts and extroverts. That's a benefit for them and for me that I'm getting to see who has really quality work. And it's not always the noisy kid.

Gina revealed that she was resistant to use technology because she has seen many times when technology has been used and it doesn't necessarily enhance the learning experience: "Before I started the blended [program], and I still see examples of this, of ways in which I think using technology doesn't enhance in any way the educational experience ... so I have been very resistant to incorporate technology"

As a consequence, she pondered that during the program she tried to think of ways in which using technology would be an improvement: "So I really tried to listen, during the blended [learning program] and there were lots of things that I thought, in my mind: 'That's not better' and then in other cases, 'OK! That's an enhancement.' So I tried to come up with things that were enhancements." For example, Gina mentioned that she now has assignments that students have to do and submit before coming to class whereas before it was harder for her to keep track of that: "Kids have to be prepared before they come to class... that's a real benefit ... to ensure at least some preparation before they get to class and before ... there were sort of limited ways that I could do that."

The blended learning program motivated Gina to think about ways in which she could improve her course and make it more meaningful for students. Reducing the number of class meetings and creating online activities that students can do on their own follows the replacement model of blended learning (Twigg, 2003), which allows for more availability of in-class time to be devoted to higher level thinking skills types of activities. The appropriate choice of pedagogy and technology for each activity will dictate whether this change will be successful. In addition,

the use of technology is justifiable when it affords results that would not be achievable otherwise in terms of their efficiency or effectiveness and when it has the power to reach and engage more students.

Continuing in talking about changes in her course, Gina also pointed out that, for instance, she thought about and wrote the learning objectives more carefully: “They weren't really course objectives before. I mean, I kind of knew where I thought students should be to conduct business in another language. But I've learned to be explicit with them.” She mentioned that before she had her learning objectives in her head and “only marginally” on the syllabus and that taking the time to write them during the program has been a good checkpoint for her as she said: “I found myself going back to the syllabus going: ‘Am I making my objectives?’ So it's been a kind of a good check for me to go back and say: ‘OK what am I not including?’”

She reflected about one important change in her course and that in the past she did not have course objectives:

The really explicit course objectives, I mean, that's something that I haven't really done much with in the past... we go through the class during explications and reading and discussions and papers and all that kind of stuff. I never thought about: ‘what are they supposed to be able to do at the end?’ I've made assumptions about, you know, ‘did they at the end of the semester...’. ‘They didn't learn anything,’ you know, ‘you learned a lot, you're really good, you're not,’ you know. But without thinking explicitly about: ‘the student should be able to do this’ and so that's what I got mostly out of the blended [program].

Gina also mentioned that learning about how to write course objectives has helped her beyond her course because, as mentioned in the previous chapter, the university has put forth an initiative so that every course has to have their course objectives and she now feels prepared to do that and also help and guide her colleagues toward that effort: “We're being asked to do course objectives on all our syllabi and working with colleagues and they come up with things

you know, that's not an objective... and they'll say: 'No... No. That's not specific. It's not measurable.'”

Realizing the importance of having strong learning objectives for her students and thinking carefully and being explicit about them has had an effect on Gina's teaching as she finds herself going back and checking whether she has covered what she had set out to. Having strong learning objectives is an important aspect that can help make teaching easier in several ways. For one, it sets the goals for instruction and helps focus the teaching on what is important for students to learn. Besides, it creates a path for instructors to clearly communicate what they want students to be able to know and do. In addition, it helps students to know whether and when they got there. And it offers ways in which course activities and assessment can be aligned with the learning outcomes instructors have for their students.

Gina revealed that while the blended format in her course added flexibility as far as class time meetings for her students, she was surprised how many of them came to see her during her office hours: “I'm really surprised to see how many students come to my office hours.” In a way, she did not expect her students to want any more contact than the required class meetings:

So it's been interesting for me to know. I guess I'm pleased that they want contact with their professor. Because I previously thought that the farther away they could be was their preference. I'm surprised that some of them at least, would like more contact.

At one point in our conversation, Gina confessed that students weren't really used to the new blended learning format of the course and that even though she said she communicated it to them quite a few times, they still expressed confusion about when the classes would meet, what was for homework, and what activities were in substitution of in-class time: “So the students have been really confused: ‘So we don't have class on Friday?’ ‘No. No class. You have homework. You have homework. You have work to do. It's just not here in this room.’”

Gina also expressed concern over an issue she has observed regarding students and that is the fact that, according to her, they seem to be relying in the task-assessment approach and wanting more and more to check that what they are doing is right a lot more frequently:

The quizzing online has helped me do a little of the task-assessment. You know. 'Do this. Here's the assessment.' But students wanting that all the time, I think it's a real burden to instruction and to the instructor. But they don't necessarily want to do the work to do that. They just want to know, 'Is this right? Is this right? Is this right?'... That constant reassurance is something that's newer in the student group ... And I think some of that it's either the task-assessment, task-assessment is a result of that personality shift in attitude or it's causing some of it... I see that task-assessment... task-assessment is not unuseful [*sic*] but it is something that I'm just not sure I should be spending all my time deciding assessment for it.

It has been mentioned that blended learning can be both simple and complex. This can be particularly true when students are new to this different modality. While blended learning may bring flexibility in when and where students can complete some of their assignments, it may also bring a bit of confusion because, for students, it is hard to make a distinction between what are in-class type activities that have been moved online and what is just standard homework – even Gina used the word homework, when she was actually employing strategies of the blended learning replacement model (Twigg, 2003), offering a different type of activity in substitution of the use of in-class time. In addition, some students might want to take as much advantage as they can of contact time with their instructors, especially in some disciplines like languages, which is Gina's case. Finally, the issue Gina mentioned in the previous paragraph of students wanting constant reassurance in how they performed may bring consequences such as leading them not to deal well with uncertainty or even crippling their investigative nature and desire to discover things and take ownership in choosing their own learning pathways.

### ***Changes in Conceptions of Teaching and Course Design***

The conversation then moved on to the next topic, changes in conceptions of teaching and course design. When asked about whether her participation in the blended learning program has

reflected changes in her teaching, Gina was quick to reply: “In this class it certainly has because, and I hope the communication is better, doing objectives for the course has allowed me to communicate better to the students. It has made a difference in how I deliver.”

She added that there have been changes in what she does and in the way she thinks about teaching but that she doesn’t know how to explain them specifically: “I’m sure that influenced and infiltrated the things that I do in class and it certainly made me think when I was setting the class up. I couldn’t tell you explicitly how. But I know it’s had an effect on what I’m doing.”

Later in the interview, when asked to clarify whether the changes she has made to her course were a result of her participation in the program, she replied emphatically: “Oh Definitely. They’re all of result of [the participation in the blended learning program]... Yeah. Yeah. Yeah. OK because I probably wouldn’t have known what to do to change.”

Participation in professional development programs have the potential to bring about changes in an individual and that is no different when we’re talking about instructors and their teaching. Sometimes the extent of changes that faculty go through in such programs may be superficial and may not have a significant impact in their teaching. However, the goal of good blended learning design is to promote a deep rethinking of learning objectives and a shift in pedagogy to realign teaching strategies and activities in order to encourage active student learning.

### ***Final Remarks***

The conversation then moved to talk about Gina’s final remarks. When discussing whether she thought other faculty should participate in the program, Gina complained that there is a misconception among her colleagues that implementing blended learning is just cutting classes but she affirmed it’s more complex than that:

I think it's way more complicated than just using more technology. And when I talk to colleagues, they sometimes think that: 'Great you just cut a class and put things online.' To which I would say: 'No. I guess you can do that but that's no different than homework.' That the point of it is that it's somehow deliver something that either you can't do in class, like twenty-five recordings that I couldn't do in class, or that they get to do something that online things enhance. It's not just cutting class so that they don't have to come. And that's a really big misconception that people say: 'Oh, yeah. I know blended learning you just put it online.'

Gina reflected that implementing blended learning is not as easy as some people might think, or as she mentioned her colleagues would say, cutting classes. She added that it requires a lot more thought to it than just moving something online or just replacing a class here and there. She evaluated that she needs to think deeply about what she is going to do in order to replace a class meeting and that it really needs to be worth not meeting with her students:

It's actually more interactive than that. It's more work than that. And it takes more thought to that and I've had to, when I think about: 'OK if we're not going to class this Friday, what is worth not being in class?' And sometimes that's hard to think of. You have to think of: 'OK. What's in the chapter that we're working on? What do they need to work on right now?' And I go back to my objectives. 'What aren't we hitting? What can I get them to? What could I use to make them hit that point that we need practice on?... It's got to be a reason not to be in class.'

She also talked about the importance of participating in the blended learning program as it provided a space for her to hear experiences that other people have had with blended learning and implementing technology in their teaching. She valued having the opportunity to hear from other people and to think deeply about changes before committing to them: "That's what lets you know that it's not just about cutting class and putting some things online."

When talking about whether departmental administration should encourage faculty participation in professional development opportunities in general, Gina shared that it might not be easy to get to that stage:

I think for department administrators to suggest this, I think that's a tricky one because we have a culture on campus where everyone thinks they're doing it right already. And so at a certain point many faculty on our campus believe that their primary contribution is not teaching; it's research. And for some people that might be true. But for others, no. I

mean, everyone isn't a star but everyone thinks they are. So I think this idea that they could really improve, that's the hard sell. You don't want to tell people they're deficient, either. But there is, you know, this idea that people would want to be better at something that they don't think they should be doing is hard.

She also added that departmental support for these kinds of initiatives is not adequate: "My department isn't very supportive. So I am trying to think of something that they could have done differently. There's no doing, I mean."

Gina also reflected on her experiences in the blended learning program and what could have made her experiences in it even more beneficial: "It would be nice to have access to more hands on technological support." She then explained that the actual implementation of a blended course can be challenging and may require skills that not everyone has. She also said that, even though there are some online resources available through campus, it would be useful to have more opportunities to learn how to actually do things such as offering technology workshops, specifically for course production since there are very few such offerings for faculty on campus.

Just as most disruptions in education face some push-back from a variety of interested parties, in some instances, blended learning adoption too has faced resistance sometimes from faculty, students, departmental administration, and even institutions. Some hold the perception that blended learning is simply freeing up in-class time, or as some have put it, cutting classes. However, good blended learning design, involves a well-planned approach to bring together in-class and out-of-class activities in a meaningful way for students. Besides, if blended learning design and implementation is to be successful, there needs to be technological and pedagogical support in addition to departmental buy-in in supporting and also incentivizing faculty training, including recognizing teaching as an important mission within the department and the academic institution as a whole.

### **Interview with Ryan: Findings and Analysis**



***Overview: Participant, Context, Decision to Participate in the Program, and the Course***

The third and last case described in this section is Ryan. Ryan is in his mid-40s and is an associate professor in the School of Medicine and Public Health with about sixteen years of teaching experience, eleven of those at the university.

Ryan said that in his department “the traditional way of teaching is mostly lecture or prepared slides, sometimes a whiteboard, chalkboard, sort of presenting equations, and working through formulas.” He added that in some classes there is an “associated lab where the students work through problems with a TA... homework and in-class written exams.” He described that as being the “standard format.”

Ryan said he heard about the blended learning program through an email announcement. He explained that he decided to participate in the program because he was trying to “move the computer-based statistical analysis components of the class... to get them out of the way of teaching the actual statistical theory and methods needed.” He also commented that he “was originally thinking of sort of some form of online learning, distance-based thing that they could do for that piece of the class” and he saw the announcement for the program, and thought: “This might actually motivate me to actually do more than just think about it.”

During his participation in the blended learning program, Ryan worked on redesigning one course, a second semester statistics class for Master’s and Ph.D. students in population health and epidemiology. The course typically has between twenty to twenty-five students.

***Changes in the Course***

Then the conversation moved to talk about changes that Ryan might have made in the course he worked on during the blended learning program. When asked whether he had made any changes in his course due to his participation in the program, Ryan barely let the interviewer

finish his question and quickly replied: “Yes. Definitely. Oh, yeah.” Then, the interviewer presented Ryan with a list of aspects that might relate to his course. The listed included the following topics: course objectives, unit objectives, course structure, course content, learning activities, the way content is delivered, the way in which the instructor interacts with students, the way in which students interact with course materials, the ways students are assessed, and how the course is evaluated. The interviewer asked which of those Ryan had made changes to as a result of his participation in the program. He answered: “I think all of them.” The interviewer asked for confirmation: “All of them? You’ve made changes to all of them?” And he confirmed: “I believe so. Yeah.”

At this point, the interviewer started probing to check what exactly Ryan changed in his course. Ryan started explaining the process through which he initiated changes in his course: “It started by sort of reevaluating what the course objectives were and sort of focusing more on what I actually wanted the students to be able to do at the end of the class.” He added that, in turn, it restructured the way he assessed his students’ learning by moving from “really structured assignments that sort of lead them by the hand through... the analysis. And then interpret the results of that analysis” to a “much more of a project based sort of approach [of] assignments to the course.” He further explained that now he gives students assignments in which they have to find the dataset that they are interested in working with and analyze it using methods covered in the course. Ryan summarized the change he made: “[I] focus more on ‘this is what I want you to be able to do’ versus... sort of basic knowledge demonstration.”

In terms of course content and structure, Ryan said that the main change that he made was, in fact:

moving away from sort of structured lecture time and replacing that with much greater focus on having the students come in having done the readings for the class beforehand and using an online pre-class quiz to make sure that they've actually done the readings.

He elaborated that he wanted students to be ready and focused on working through an actual statistical analysis in class and have open discussions based on the reading materials.

When asked why he decided to make those changes in his course, Ryan replied: "I had always taught the course in a particular way because that's the way the courses were taught." He explained that the way that statistics is traditionally taught is "not how you use those methods in practice", and that "it's not like in the real world." He further explained that a student cannot expect the real world to be like that: "someone comes up to them and says: 'This is a linear regression problem. Do a linear regression.'"

In making the change to offload some of the course content of the in-class time, Ryan hoped to show his students "how you actually work through a data analysis in class." He commented that "that's the thing that's hard to put down on a piece of paper and do sort of asynchronously." By using this approach, Ryan is saving precious in-class time to dedicate to his students, as he put it: "that's something you have to do and you have to interact with them. You have to sort of react to what you see as it's going on." He added: "The other stuff that would traditionally have been filled up the lectures is stuff that's easy to do." Ryan continued on to contrast how the course was before he made these changes:

Yeah, it's trying to get them to do higher level thinking, which was the ultimate goal always but, it was sort of, the class was not structured around doing those things. It was structured around doing lower level things because they're much more rote and easy to grade and easy to do.

Moreover, one other aspect of the course that Ryan highlighted he changed as a result of his participation in the blended learning program was "thinking about evaluating the class" himself as opposed to "waiting for the student end of semester evaluations and then figuring out what

was useful” and “what will inform next year's class.” Ryan also revealed that the “frustrating part” was students “not wanting exactly the changes that last year's group wanted.” He explained: “You make all these changes because the one group said I don't like it this way and the next group says I want it that way.” Therefore, Ryan decided to add a “mid-class” evaluation “sort of halfway through” the course in order to get “some feedback in time to actually make some changes that would enhance the class.” He added that “in fact, that was really crucial last year's offering – not this year. This year they're mostly happy.”

Ryan commented that in the previous year he thought he was “making [it] less burdensome” for students by just having, during the in-class meetings, “interactive Q&A sessions that would inform sort of the back and forth in lecture” and not having an “online pre-class quiz.” Then, when he did the interim evaluation, he found out that “many of them didn't like it that way – that they were sort of dissatisfied with feeling the pressure to always have questions ready that ask to start the lecture.” As a result of the mid-semester evaluation, Ryan “added in the online quiz piece as an extra thing to do before class”, which he thought he was “giving them more things to do but they actually preferred that, being able to give anonymous feedback before class.” He thought that adding a mid-semester evaluation was something that has been “very useful” and he has been “recommending to lots of other fellow faculty” of his. He finalized by saying that “getting that is a very helpful way to sort of address problems before they get out of hand, before it's too late to do anything about them.”

As a result of his participation in the blended learning program, Ryan appeared to have changed a number of aspects of his course. Starting with defining course and unit objectives to help guide him what he wanted students to get out of the course and by devoting more of the in-class time to topics that could really benefit from the instructor's presence, Ryan then changed

the learning activities and assessment by moving towards more authentic materials and assignments. He also added mid-semester course evaluations to make adjustments to the course and manage students' expectations.

### *Changes in Conceptions of Teaching and Course Design*

At this point, the conversation changed to talk about whether Ryan had changed the way he viewed teaching and course design as a result of his participation in the program. He said that "certainly course design," elaborating that the program was "probably the only exposure" he had ever had to "formal how to design a class" type of training except for the fact that he had "taken classes, seen syllabuses, worked off of those, and developed courses in that structure without necessarily thinking about 'why was the course structured that way?'" And he made the following comment:

Probably the most important thing I got out of the whole program experience was actually having the time to think about 'this is how you would design.' Figure out what you want the course to accomplish and how you're going to achieve those goals, versus starting off with a, you know, 'here's basically how the class is laid out. Here's what I'm gonna do in this lecture period.' But basically the structure is fixed and you're not going to change that. So from that point of view it's been a really crucial thing.

The interviewer probed to clarify how he thinks about his course now as opposed to how he thought of it before and Ryan further explained: "I certainly changed the way in which I thought about how best to use lecture time, you know, best use lab time how best to use out of class time how best to evaluate people."

In speaking more about changes that Ryan made in his course, he said that he changed the structure of the course by dividing it into four components. He described that "they're all the same material but it's structured and presented differently and emphasizes things that... are more important." He said that in the old structure, there were things that were "important" and some

that were “less important” but they “essentially all got the same amount of time.” As a result, Ryan made these less important things “less prominent in the course.”

One other significant change that Ryan made was in how he uses in-class and out-of-class time in his course. He described that before, in a “day to day” structure, “originally [his] presumption would be that students haven't read any of the materials in the textbook” that he would come to class and have to teach them things “for the first time” and that he would “spend most of the time going through that. And then occasionally at the very end... sort of rush through an example of an analysis.” In the newly redesigned course format, however, “the presumption is that they have read all the materials” so that he can “spend a lecture going through a real example and applying those methods to the example.” The difference, as Ryan explains is:

Instead of them having to learn the applications solely on their own sort of, ‘Here's the abstract idea, now you go do it with the data set as the homework problems.’ Now it's much more ‘Here, you heard about the abstract ideas, now I'm going to make them concrete by going through a data analysis with you. And then in the lab, you'll do an example where you run through the analysis with someone there to help you. And then the evaluation will be that you'll get your own data set and you'll apply those methods.’ So that's sort of the general pedagogical structure. You know: ‘Read about it. Get the basic ideas down. Have a lecture where you can ask questions about things that weren't clear but you can also see illustration of how this works. Then, do it with someone there to help you, hold your hand and then, in the end, do it all on your own.’ That's sort of the ultimate goal and hopefully how it's working. At least we're hopeful we're getting there.

Ryan also commented that for some students this new approach might be “difficult” because they want to “spend more time on the math aspects of things and would like to have a regular exam [with] very specific questions to be answered that have a clear... yes/no, right/wrong answer.”

However, he explained that reality is a “messier real world where there are several right answers and a lot of wrong answers too” and that they won't “necessarily know this is the one right way to go.” However, he also revealed that students like “working with real data” and that sometimes students “find it a challenge to find their own real data.” And the advantage, according to Ryan is that giving students the option to choose the data they want to work with in this new approach

“has made things better overall for them that they're trying to work on a question they really are interested in.” And he added: “Overall I think it's going well. I think they're happier than they were. At least I think they are... I think they're getting more out of the class.”

Ryan concluded his thoughts by explaining how the change in the way he viewed teaching and course design might benefit his students as they progress in their academic lives:

I think in the past often it's been difficult for them because they don't get to apply the methods and they don't see the real value of what they're learning until two years down the line. And I think this gives them a little better chance to actually see the value of things for their own purpose sooner. So from that point of view, I think it's been... it helps with their perception of things because they're not sort of learning it without knowing what they're going to use it for until they do their research.

The blended learning program was, according to Ryan, the only opportunity he had to learn about teaching and course design despite the experience he had had as a student and as an instructor. In changing the way he thought about how to best use in-class and out-of-class time, Ryan changed his classes to use contact time with students in a more significant way. As a result, he also made changes to the way he assessed students by including more authentic forms of assessment that utilize real world data in context, giving them an opportunity to apply the concepts they learn right away.

Next, the conversation turns to try to identify what topics in the blended learning program had an influence in the way Ryan view teaching and course design. Ryan affirmed that “the backwards design was the most important” and that “the course structure, course objective piece was also very useful.” He added that thinking about assessment was also an important component in influencing him to make changes on teaching and course design:

Course assessment, you know, in terms of both how to assess the students but also how to assess myself, I think was actually, might have been the most fundamental thing that changed. And sort of was most useful in sort of actually getting me to make the changes that I probably wouldn't have otherwise made. I think I would have made some of the other structural changes in terms of trying to find ways to do more examples in class and do more showing versus telling... Thinking about the overall design of the class

elements. And then thinking about assessment and really that was going to be to focus on ‘what do I actually want them to be able to do at the end of the class?’ And redesigning the assessment components of the class to focus on those things as opposed to ‘These are the type of assessments that we normally use’, problems out of the book. And you know, simple in-class exams that let you do the things you can do in class versus ‘Is this really what I want you to do?’ And so switching to the types of assignments to match ‘this is what I actually want the students to be able to do at the end’ I think is probably the most fundamental thing.

Later, Ryan reinforced the usefulness of offloading the lecture portion of the class and moving it online so that the use of class time could be maximized:

Thinking about ‘what can you do online?’ And ‘how can you use the online quiz-based tools to actually reinforce?’... For me I think that's been really crucial in sort of getting them to do the readings which allow the class time to be spent on the things that are useful for them. You know, thinking about ‘What are the things that require the instructor and students to interact?’ And those are the things you want to do in the classroom when everyone is there and if it doesn't require you to interact with the student then why do that in person, right? If it is just me talking, then there's no point in us all getting together so I can talk to a bunch of people who might as well not be in the room.

When asked whether he felt different in the way he views course design between before taking the program and after, Ryan replied: “Yes. I feel like I put a lot more thought into how the course should be designed than I ever did before.”

In talking about what aspects of the blended learning program had an influence on the way he viewed teaching and course design, Ryan thought that using the backward design process was the most important piece to redesign his course by starting with determining what he wanted students to be able to do at the end of the class. And then determining objectives and having learning activities, assignments, and forms of assessment that reflect what students should have learned. Ryan also rearranged how he uses his in-class and out-of-class time focusing on using his time with students by moving some activities online and by keeping those that require the instructor and students to interact in class.

### ***Final Remarks***



Next, Ryan reflected on how other faculty could benefit from participating in the blended learning program. He commented that “the main thing” for faculty would be “to actually try and make some changes and not be overwhelmed with the prospect of trying to... change everything at once. But start making some changes and then... get a snowball going.” Ryan also highlighted the importance of gathering feedback from students: “And also I think getting the feedback quicker and faster, I think, that's been crucial to actually making things work.” He explained that he “almost didn't do the interim evaluation the first time through” and that “in-class it seemed like things were behaving the way [he] wanted them to” but that sometimes even when you are having a dialogue with students in class “often you have a misperception and the silent majority is not as happy or not even the silent majority but the silent minority is not as happy with what's going on.” And to emphasize the importance of giving students a chance to voice their opinions, he concluded: “Giving them a chance to tell you what works and what doesn't work I think is important.”

Then, Ryan talked about departmental administrators in terms of support for faculty participation in the program. He replied that the department has been “pretty good” since they had “several people go through the [program]” and that he has been “pushing other people to go through the [program]” as well. He added, however, that “a lot of the perception is about... the whole blending and getting things online and then having to do less work, which is often a misconception that people have.” He explained that “in many ways it makes the lecture times more work than they would otherwise be.”

Ryan commented that the participation in the blended learning program would be more beneficial for people who were coming in as faculty but that is exactly when they have the least amount of time for that:

This is something that would probably be most valuable to people early on their tenure... people who are starting to teach. And that's a time when it's hard to find the time to spend on teaching just given where we are and what we expect of our faculty... It's hard to find the time to do this even though I think it would have a lot of payoffs.

Ryan also commented about the structure of the blended learning program, not focusing on technological aspects and rather leading with the course design piece. He said: "I really liked the class." And he added: "I think the course was put together in a perfect way... the tricky part is, of course, getting the buy in of people... the objective is to figure out 'what do you actually want the course to be about?'"

Ryan revealed that at times he felt like some participants were getting "impatient to get to the '[h]ow do I put a video up on the web... or use a Google form?'" and that some of the "preliminary stuff about designing the class often... was frustrating to people" and that they were "missing the big picture" as their goal seemed to be to "get... lectures online." And he explained:

My perception is that there are many students who wanted to skip all that stuff about 'why do you do this?' and 'how does it make things better?' And skip to just 'this is how you do it.' I think that would be a mistake. I think it's really important to emphasize that not every course can benefit from putting lots of stuff online.

In fact, he gave the example of his own course and his experience in redesigning it:

I essentially didn't put anything... there's not really anything online about the course that I offer now. I mean, it's do readings, which you don't do online. And there's online pre-class quizzes but I could have them do that with paper if I needed, you know, without much difference in terms of making them do the reading. So that was part of the useful thing, figuring out that, you know, what was useful was to keep the parts I was going to put on line, I mean the parts I was going, thinking about putting on line are the parts that I kept in the in-person class. And the parts that I was going to keep in class are the stuff that, you know, basically, it's not online, but it's the asynchronous pieces because those are the things that really don't get anything from the interaction *per se*.

And he confessed:

It wasn't exactly what I was expecting when I, you know, I didn't sign up expecting to spend as much time thinking about, you know, developing the course objectives. But that turned out to be the thing that was really valuable about, about the class and I think it's something that, you know, in general most faculty who get here don't learn anything

about teaching. Thinking about how to put together courses is not how you make your way to the faculty here.

When reflecting on how his experience could have been a more successful one in terms of the supports offered for redesigning his course, Ryan said: “That’s tough. I don’t know... I mean I got the pieces that I wanted to get out of it and I got enough illustrations of the things that I need to do that I can do them.”

In his final remarks Ryan said that learning about assessment and backward design was the most significant aspect for him:

The most significant part was the assessment piece... It was the whole notion of backwards design from starting from ‘This is what I want a student to be able to do at the end of the class.’ And then figure out ‘how do I arrange the topics and present the topics in a way that achieves that goal... And focus on ‘this is what I want the students to do and if that's what I want them to do then I should have assignments and assessments that match that and not assignments and assessments that match what's easy for me to grade or what's normally the sort of thing that's done.’ And so sort of that switch in my head from thinking about ‘here, I want them to be able to do a data analysis and write a report and convey what they found.’ And do it, you know, in an intelligent, unguided way, where I don't tell them ‘Do this, then do that, and then do this... If I expect them to be able to do that and so ‘how do we build the class that gets them to do that?’ So that I think has been the most fundamental, important thing I got out of, out of the [program].

Reflecting on the final remarks about his participation in the blended learning program, Ryan cautioned faculty who might decide to take the program not to try to change all of their course at once but rather start with a few things in their course and then expand the work later. In addition, he recognized the importance of getting student feedback early so that there is time to make adjustments to the course. As far as the support he got from his department, he thought his department was on-board with the changes he wanted to make, encouraging other faculty to also participate in the program. However, Ryan observed that some people still have the misconception that blended learning is less work, which he confessed was actually quite the contrary and that it, in fact, turned out to be more work for the instructor during lecture time.

Ryan also commented that participating in blended learning program could be a more beneficial experience for incoming faculty while pondering that it is exactly when they have less time and that effort put into teaching is not really what the department expects of their faculty. Finally, in reflecting on his experience in the program in general, Ryan thought that maybe the program could try to manage participants' expectations a little better so that they could value the course design process as opposed to just wanting to focus on the "how to" pieces.

## **CHAPTER 6 – FINDINGS FROM INTERVIEWS WITH LOW SCORERS**

In this chapter three case studies of interviews with research participants who scored low on the Perspective Transformation survey are analyzed. The low scores imply that respondents did not experience a change in their conceptions of, or the way they view, teaching and course design or that the change they underwent was minimal. The cases were selected based on participants' answers to the questions that were earlier described, analyzed, and reported in this study. Besides responding to their level of agreement to whether or not they had experienced a change in their perspective, respondents also described what happened when they realized their conceptions of teaching and course design changed and explored what their being in the blended learning program had to do with their experience of change as described in the previous chapter. The objective of this selection criteria was to identify three respondents who scored high on the survey and three who scored low and also whose answers to the open-ended questions suggested that they were interesting cases to be studied as they might reveal important information about the quintain, according to Stake's (2006) recommendation that "it is often better to pick the cases that most enhance our understanding" (p. vii).

The sections that follow present the data collected in the interviews with respondents who scored low in the survey. All three cases described in this chapter portray the story of a faculty member related to the changes they perceived in their conceptions of teaching and course design as a result of their participation in a faculty professional development program to redesign their courses to implement blended learning.

As in the previous chapter, which described faculty who scored high on the survey, this chapter begins with an overview of the participant, the course, and the context in which each

participant teaches. After this brief overview, each case is then further described in order to offer a better insight into the issue regarding the research questions of this study:

1. What changes, if any, do faculty perceive in their conceptions of teaching and course design that result from their participation in a program to help them redesign their courses for blended learning?
  - a. In what ways have their conceptions of teaching and course design changed as a result of participating in the program?

Next, the cases of the three participants who scored low on the Perspective Transformation survey are reported.

### **Interview with Gary: Findings and Analysis**

#### ***Overview: Participant, Context, Decision to Participate in the Program, and the Course***

Gary is an assistant professor in an academic department in the School of Education. His teaching experience includes four years of high school teaching, two years of teaching at the college level in between his Master's program, two years as a teaching assistant while pursuing his Ph.D. degree, and four years as an assistant professor.

Gary heard about the blended learning program through a colleague – a full professor in his department. Gary said his colleague invited him to participate in the program together with her because they were going to co-teach a newly offered course in the semester following their participation in the blended learning program. Therefore, Gary and his colleague were designing a brand new course from scratch. Gary contrasted the experience he and his colleague had to that of the other program participants. He commented that the other program participants were

redesigning an existing course while they were building a new course from the ground up and that this new course would have some distance learning components to it.

To better understand the context in which he typically teaches, Gary explained that his courses usually have about ten to twenty adult Master's and Ph.D. students with some part-time students as well. The classes are usually held face-to-face and are a mix of lectures, small groups, and discussions.

For the blended learning program, Gary, along with his colleague, focused on a new course at the Master's level, a data analytics class, where all students were working professionals. Gary co-taught the class with his colleague and invited guest lecturers for some class sessions. Gary said that for every class session in the course there were distant components structured around integrating readings and discussion boards.

### *Changes in the Course*

In thinking about how his participation in the blended learning program influenced how he structured his course, Gary said that learning about possibilities to create learning activities helped him design his new course:

So one of the things that I was hoping to get out of [the program] was just exposure to options that I didn't know were there. Things that I might have incorporated into the class but I didn't know about. And I think we definitely got exposure to some of those.

According to Gary, he came into the program with at least one very specific objective, which was to learn about ways in which he could use distance and online learning strategies in his course. And he felt that the program did offer him that, which helped him in creating activities and ultimately designing his new course.

Thinking back about the program, Gary said that, because of his past teaching experience, he was already familiar with most of the topics that were covered:

Like I said, I was a high school teacher for four years. I worked with a teacher preparation program. As far as, like, I know we spent a lot of time on setting objectives, unit objectives and all that sort of thing. I was very familiar with most of that.

Gary revealed that from his past experience as a high school teacher he already had experience with one major aspect of the blended learning program: setting unit and course objectives. This aspect of the program is of great importance for participants to master since it lays the foundation for the subsequent topics in the program.

When asked about his familiarity with designing learning experiences for blended or online environments specifically, Gary said that he wasn't familiar with that. However, Gary commented that a number of the topics that were covered during the program were not unique to blended learning:

So there's a lot of these things that we did in the [program] that weren't particularly unique to being blended, like, like making unit objectives and course objectives and evaluating and assessment and that sort of thing. And those are all things that I had had experience with before. But the blended part I had not.

While he shared that some of the topics covered in the program were familiar to him before participating in the program, Gary said that revisiting them served to reinforce what he already knew about teaching and course design: "It reinforced what I knew. And it provided some tools."

In addition, Gary noted that strategies and tools specifically to be used in a blended learning context were useful to him:

You know, we talked about, like, how do you use a discussion, like, I know how to run a discussion in large groups in small groups and one-on-one in classes but 'how do you, like, facilitate a discussion in a blended context?' As far as how to actually do that and what are the tools that facilitate doing that well. Those are the things that I didn't know about going in.

While Gary thought of himself as an experienced instructor in some aspects in a classroom setting, he did not feel that he knew how to use the strategies he already mastered if those were



to be transferred to an online or blended learning context and that he didn't know much about the tools that could be used to facilitate those interactions.

### *Changes in Conceptions of Teaching and Course Design*

The next question asked about whether there was a change in the way participants view their teaching and course design. Gary thought that his views on teaching and course design did not change as a result of participating in the program; he commented: "From a design standpoint it feels the same." This answer clearly reflects Gary's low score in the survey, which means he did not feel like his views of teaching and course design had changed.

Nonetheless, when asked whether his experience being in the program was worthwhile, Gary responded:

Definitely. Absolutely. I'd even do it again if there was, like, another class that ... had to be kind of revamped for a distance thing. I think it would be worth doing again with that specific class in mind. And just having a little bit of hand-holding while the class gets shaped.

Even though Gary thought that many of the concepts covered in the program were already familiar to him, he found value in participating. He expressed that feeling by saying that he would take the program again if he had another class that needed to be redesigned for distance or perhaps for blended learning.

In addition, Gary also pointed out the different levels of instructor preparedness and experience in course design among the participants of the blended learning program. He commented that there were people without experience in writing course and unit objectives while others, like himself, had quite a bit of experience in that:

I felt like I could tell when you guys were teaching the class that you had a lot of experience with people coming to you being, like: 'I want to do this' and they clearly didn't have objectives. They just had an activity ... It seemed like you had a lot of conversations with people, like: 'OK. What's your objective?' and that's why we did so much of that.

Furthermore, Gary added that if there was a sort of second level of blended learning program that was offered that built upon what was covered in the original program, that would be appealing to him – and perhaps to other participants that already had some course design experience:

So I would have liked to then... Like, almost like a level two class so people come in that they know about course design, they know about assessment and evaluation, and then it's really focused on, like, 'OK. You've got all this. We're going to assume that you have all that stuff. Maybe you've gone through the class before or whatever reason.' And then it could be really focused on going deep into this sort of the whole suite of blended tools and really looking at them. Spending a lot more time looking at really the blended aspect really carefully.

Gary pondered that even though he believed his participation in the program was definitely worthwhile, he thought that he would further benefit from a program that offered more advanced level faculty professional development, focusing on the development and implementation of blended learning.

He commented that such a program could focus on the actual implementation of the changes and redesign that participants worked on during the original level one program:

And I think it could be equally useful to have a second round of [program] where we meet while [our course] is being deployed so you can actually talk to people about 'Oh, this is exactly what I did.' 'This is how it's being used.' To sort of, like, 'Here's [*sic*] the challenges that I am seeing with this' because there's a lot of stuff that we talked about, like, 'Oh these are the sort of the trade-offs that you're going to have to deal with.' But none of us actually did that.

During the conversation, one question outlined a list of topics covered during the program and asked what aspects of the program had an influence in possible changes in teaching and course design. Besides mentioning that the learning activities had an impact in his course design, Gary also added that one of the aspects that he valued in the program was to learn that there is ample support available in terms of instructional design, pedagogy, and technology:

I think one of the biggest ones that I got ... was just knowing that supports are here. So if I have questions, I felt very comfortable being able to [send an] email [to request support]... so, like, 'Oh you know. Here's an idea that I have.' Or you know, 'How do I do it?' Or 'This is, this is the idea, could you hook me up with the right resources?' And

just being very comfortable that I could be directed. That the support was there and that was, that was a really big deal for me.

Gary went on to praise the support he got during his participation in the program: “I think the support was absolutely phenomenal. I thought that was definitely one of my big take-aways from the [program] that the support was excellent.” He added that it was reassuring to know that this kind of support is available for him in the future:

I'm going to be working out blended solutions for other classes. I'm going to run into problems that I don't know about and just kind of want to brainstorm ideas because there are going to be solutions beyond this small set of solutions that I have. And just knowing that the resources are there is a huge relief that I'm not sort of in it alone

Later the interview moves to the topic of recommendations that Gary might want to give to different stakeholders about the blended learning program.

### ***Final Remarks***

As far as recommendations for other faculty regarding the program, the first suggestion that Gary gave was to advise faculty against trying to build a course from the ground up like he did:

I would say not to do what I tried to do, which is try to build a class. I think it is much easier, I mean, just hearing the conversations that other folks had, to sort of think about an existing class and: ‘How do I modify a unit? How do I blend one particular unit or a couple of segments?’ And that's probably an easier approach.

In fact, for some faculty members designing a brand new course for blended learning might pose a challenge since, according to the Perspective Transformation survey, some were still working on realizing the importance of having good unit and course objectives and writing those for their courses. And if you add this learning curve to the fact that they would be creating a whole new course, that could become a challenge when you consider the amount of work for this undertaking.

Then the conversation moves on to talk about recommendations Gary might have for departmental administrators. He said that his department has already been talking about blended

learning and that implementing more blended learning is in their plans in order to better serve the composition of their student population:

We have several full time students, a contingent of full time students. And if we want to maintain and expand our reach there, then blending is just like a critical component of what we're going to have to do moving forward. Our administration didn't take much convincing on it. They are bought in and they can clearly see the value of blended instruction.

In Gary's words, his department recognizes that, in looking at their student body, they see the value of blended learning and that implementing blended learning is something that they are "going to have to do" in the future in order to reach their students.

In speaking about recommendations he would have for the blended learning program specifically, Gary said that having a deliverable due at the end of the program would be a good addition:

I do feel like if there were almost like a deliverable that we could share at the end of the [program], like, 'This is my blended unit.' And we could sort of like critique each other or, like, work in teams who are like, 'I would try to take theirs [their unit]. I would pretend like I'm a student and try to take theirs [their unit] and they would do the same for me. So I don't know if that's practically feasible or even logistically feasible. But it seems like if there could have been a sort of deliverable component I would have moaned and groaned about it, but I think it would have been beneficial at the end of the day.

Gary did not have much to say as far as recommendations for the blended learning program. His only suggestion was to include a deliverable that could be critiqued by other participants at the end of the program. This opportunity would serve as a peer evaluation of blended learning design with other program participants that could prove valuable as it would open up a space to test the new units and get feedback. This practice is in alignment with the iterative design process which proposes that there should be a plan to gather feedback to identify what worked well, what didn't, and how it can be improved so that each iteration can be further refined. And even though having a space to critique participants' blended learning design could add to the amount of work and time commitment, it could also yield positive results with more solid unit and course design.

The last part of the interview asked whether there were any final comments that Gary would like to make. In his final remarks, Gary confessed that he wished he had more time and could invest more on his teaching:

Coming from high school where my job was 100% teaching, and knowing [that in my current role as a university professor] I'm not doing... I'm not doing that good of a job in teaching that I could be. But I just don't have the time. I feel like 20% of my job is teaching now. There's a lot of push to get research out. We'll see after tenure if I can work on those things that I would really like to.

Gary voiced his concern that, although he feels like teaching is an important part of his job and that he would like to devote more time to it so that he can do a better job at it, he sees that other responsibilities prevent him from investing in his teaching. One of the topics that Gary mentioned that has been brought up before by other participants in this study is the pressure to produce research which is often directly related to the issue of getting tenure.

### **Interview with Mia: Findings and Analysis**

#### ***Overview: Participant, Context, Decision to Participate in the Program, and the Course***

Mia is an Associate Faculty in a modern language department where she is also an associate director for one of the courses offered by the department. Mia is in her late 50s and has over 15 years of teaching experience at the university. The courses that she teaches are composition and creative writing courses and are fairly small having between sixteen to nineteen students. They involve a great deal of discussion and small and whole group work, and project work. In addition, she said that her teaching is very student-centered and that she believed in de-centering the authority of the teacher so that students could take responsibility for their own learning. Mia also said that since she teaches writing she believes in learning by doing. Her job also involves training teachers who teach the courses that she supervises.

When asked how she learned about the blended learning program, Mia said she got an email about it since she had already participated in other teaching initiatives on campus. Besides,

Mia shared that she decided to participate in the program because, in that particular semester, her teaching load was not that heavy which gave her “a little bit of space in [her] schedule” to be able to participate. She added that she really welcomes opportunities to talk about teaching and “to think through teaching together.” Mia mentioned that she was also motivated by the stipend that the program offered since, in her own words: “as an academic staff member I had really no access to professional development funds except for someone's good graces.”

At this point in the interview, we can already see that two important aspects for faculty participation in professional development initiatives such as the blended learning program that have been raised are instructor self-motivation and the issue of teaching load. In Mia’s case, she was already motivated to participate in teaching professional development activities and another incentive in the form of the stipend offered further encouraged her to participate. Then, when she saw an opportunity and she had some more time available to attend, she decided to do so.

Then, the interview moved to explore the course that Mia worked on during the program. She revealed that while she chose to focus on one course when she decided to participate in the program, she ended up not teaching that course anymore due to administrative responsibilities and added that she might not teach it again. Nonetheless, Mia explained that the course she redesigned during the program was “kind of a model” for her and that she “ended up using blended learning and the things that [she] learned in [the program]” in a summer course. She also clarified that the summer course was a three-week version of a course that was typically taught in four weeks and that since it was “shorter, certainly more compact” she “deliberately blended” some parts of it.

This excerpt of the conversation shows that even though Mia set out to work on one specific course during the blended learning program, she ended up not teaching that course

anymore. However, she was still able to use what she learned in the program in another course, which exemplifies that what is learned during the program can easily be applied to not only the course participants work on during the program but also to other courses that they might teach.

### *Changes in the Course*

At that point, the discussion focused on the summer course that Mia redesigned and then taught using the blended learning format. Mia added that she had taught that course four or five times before. When asked about what changes she had made in her course as a result of her participation in the blended learning program, Mia repeated that “there were pieces that were deliberately... thought of... as blended.” She further explained that before there were “things that [she] did online but [she] hadn't thought about [them] as coherently before.” She also added that “because it was a three-week course rather than [the] usual four-week course there were some ways in which the blending was very helpful to think through what needed to be done together in-person and what could be done online.”

When asked to think about how much of her course had changed as a result of the program, Mia replied that it would be “maybe fifteen to twenty per cent”, mostly in terms of how she had the “activities structured” and that the design of the course, in her words, “pretty much stayed the same except that some things, a few things moved to online, some of the activities that I would usually do together in class moved to an online activity.” Having taught the blended learning version of the course once, Mia pondered that:

There were some online activities that ended up working well... in getting students engaged sort of outside of the classroom because in that shorter form [of the summer course students] really need to be interacting a lot and so... it was good for keeping that going in between classes and over the weekends.

Since she had experience teaching her summer course before, Mia was able to quickly indicate what changed in her course due to her participation in the blended learning program. For

instance, she judged that even though she was already using online activities she didn't think about them in a coherent fashion. In addition, she took advantage of blended learning strategies covered in the program to use them in a shorter course format than she had before, balancing between activities that could be done in-class and online. Even though Mia revealed that she changed only about fifteen to twenty percent of her course and that the design of the course did not change much, she pointed out that she changed it mostly in terms of how she structured the course activities switching some activities from face-to-face to an online environment. From what Mia described, she was already experienced in teaching her course and she already used a student-centered approach. Therefore she made use of blended learning to reach her goal in the context that she had to bring a four-week course into a three-week course format, taking advantage of strategies to keep students engaged outside of the classroom.

Then the conversation turned to what aspects of her course changed as a result of the blended learning program. When asked to identify what aspects of the program she thought influenced changes in her course, Mia said that although she always articulated course objectives, the emphasis that this topic received in the program made her think more about them:

Even though I've always articulated course objectives, I think that in the [program] we spent a fair amount of time working on that that I paid more attention to breaking things down... in terms of what students needed to do and what they were thinking about.

Mia continued on to share what aspects of her course she made changes to. She said that the learning activities were changed in that she modified some of them and moved them from in-class to the online environment. As a consequence of putting some activities online, she also mentioned that it changed the way she delivered content to her students: "The way I deliver content... so that would apply to some other content that was delivered through the Moodle rather than in person." In addition, Mia also reported that the way she interacted with her students didn't change much; however, the way students interacted with the course materials did change:



So students interacting with the course materials, I think it probably did change some... I tried to plan really well so that everything that students would need would be on Moodle, especially because it was such a short period of time... And I thought through what students, how students needed to interact in the discussion areas. So I think students did more interacting online because we had more activities online.

Mia also commented that there were things that wished she could have done but that she didn't have time to work on them:

There were lots of things that I couldn't do that I had ideas for but because I just don't have the time. You know, for me it would have been really useful... to have the time to develop like maybe some video, like five-minute video lecture things. You know, lots of things that are possible in a blended course that I just don't have time to develop.

While designing a course to implement blended learning, there are strategies that may help achieve several goals. What was described here shows that this new modality can be useful in reducing the number of hours of seat time. In order to achieve that goal, some activities had to be moved to the online environment to maximize the use of in-class meetings. As a result, the way content is delivered change and so does the way students interact with content, with the instructor, and with one another. However, good blended learning experiences require careful design and time to be developed and integrated coherently into a course.

Moreover, Mia also shared that she changed the way she assessed her students in that she used "more formative assessment" than she had done in the past. She also added that participating in the program helped her "think about it more and more systematically", trying to implement weekly formative assessments in her course. In speaking about the way she evaluated her own course, Mia said:

So in terms of my own self-assessment, my own assessment of the course, I think that having the practice in [the program] of thinking things through in that very broken down kind of way is making me more aware of thinking about my own course assessments in that way too.

Good blended learning design allows for opportunities to review course assessment to ensure they are aligned with the unit and course objectives and to evaluate the course itself, which is the

first step of the iterative design process. Mia explained that the program helped her think about assessment more systematically and she chose to have more formative assessments for her students. Besides, she also thought that the method of breaking things down that is explored in the program influenced her in the way she evaluated her own course.

### *Changes in Conceptions of Teaching and Course Design*

Next, the conversation moved to talking about whether Mia thought she changed the way she viewed teaching and course design as a result of her participation in the program. Mia replied that she didn't change the way she viewed teaching and course design and she replied:

It's very much because I've been thinking about pedagogy. We teach backwards design when we teach [...] instructors and so we're already doing a lot of that. So I don't think it really changed.

Then Mia commented on whether her views of teaching and course design align or don't align with those presented in the blended learning program. She said there were aspects of the program that aligned with her views. First she gave an example of working on backward design:

Backwards design. I mean we encourage our instructors to try to think about, you know, where they want students to get to... We do a portfolio system and so starting with that sort of 'where do you want students to... what's their final assignment?' and then 'how do you break it down, you. know backwards?' So I guess the backwards design is the big way in which it aligns.

Moreover, Mia also said that she used active learning in her course too. She added:

Active learning. That's just good writing pedagogy... collaboration. That too is just part of our, part of what we do in the field of composition and rhetoric. So I think those are the places where it aligned there. There were some things that didn't really align too but those are ways in which it aligns.

Early in the interview, Mia shared what teaching was like in the courses that she had. In fact, her descriptions were similar to what the blended learning program recommends in terms of teaching while adding the new blended delivery modality to it and making sure that the flow between in-class and out-of-class activities are as seamless as possible for students. Therefore, some of the

topics that were emphasized in the program, namely backward design and active learning, were already familiar to Mia and did not influence a change in her conceptions of teaching and course design.

However, in probing deeper on whether she thought her teaching was in alignment with what was being covered in the program, Mia revealed that there were some things that were different that she thought were “problematic” and that she, as an instructor, was always “very concerned about inclusivity and in terms of students having different learning styles” and also “very concerned about teaching as relational.”. She explained:

It seemed to me that a lot of the language was about delivering products and delivering content and that that is partly because what's going on in a writing class is not about delivering content. It's about helping students develop as writer. So it's about human development. It's about writing development. It's about developing thinkers, critical thinkers and that was part of the curriculum for the blended course. But so there were some ways in which things... seemed so tightly structured that... I just found myself rebelling sometimes against some things.

And she went on to say:

It seemed to me that the course was very much designed for people, for disciplines that are about teaching students content. It seemed as if the methods might have been more appropriate for that rather than for really engaging conversations... so the kinds of things that I do in my teaching is less content. It's not just about content.

In this part of the conversation, Mia revealed her concern about the emphasis on method and structure in the instructional design strategies presented during the program. While she saw the value of having some structure, she also felt that sometimes it was a bit too constraining, possibly preventing students from developing as writers and as learners in general and also not emphasizing the development of critical thinkers. As a matter of fact, this is one of the criticisms that instructional design methods have received. However, this might be the case if the instructional design strategies are followed in a prescriptive manner without adapting to the context, needs, and objectives of each course.

Next, when asked what she got most out of the program, Mia said that being in an environment where people are talking about ways to improve pedagogy is always a good experience. She described:

Well I always learn from hearing about other people's teaching. And so seeing my colleagues in other departments working through their particular challenges and problems with creating a blended learning course helped me think about teaching in general. So it was more about being within a community of learners working on pedagogy than it was about specifically: 'This is about blended learning'... So maybe it was kind of a peripheral kind of gain.

Mia valued the opportunity to be around other instructors talking about teaching and course design and hearing about other people's experiences in creating blended learning courses. With her experience in teaching and pedagogy and her familiarity with what was covered during the program, Mia described hers as "a peripheral kind of gain."

### ***Final Remarks***

In her final remarks, Mia talked about whether other faculty could also benefit from participating in the program. She again reflected on the issue of time and said the program could be good for "faculty who had other resources for getting course releases... because in terms of creating a blended course and really taking advantage of thinking about 'how can I systematically create a course that's really working with these different modalities.'" In emphasizing the need for some release of time, she finalized by directly saying: "You just need more time."

Mia added that she saw a "wonderful presentation" about another professor's experience in creating a blended learning course who also participated in the blended learning program and took her sabbatical to develop it. Mia repeated: "If you have that kind of resource... Yes. Take the [program] and then you have time to follow up and do all the work you need to do. Otherwise you can take bits away from it."

She also said that an instructor who hasn't had exposure to some of the content covered in the program such as backward design and learning objectives could also benefit from participating in the program: "then I suppose if someone doesn't have a perspective on backwards design and learning objectives that could be useful too." Besides, for Mia it would be useful if the blended learning program paid more attention to the "different learning styles of the different people in the [program]." She also pointed out that there should be a "recognition that not everybody can do that kind of [lesson] planning where everything is in its own little box."

When reflecting about the supports she got as she participated in the blended learning program, Mia commented: "Again. I think people need release time to work on it." She also added that she did not take advantage of the technical support offered during the program because she "just didn't have the time to develop, to learn how to do video things, and learn how to integrate it more."

In thinking about her participation in the blended learning program, Mia also thought that it was important to have a program offering that was focused on developing good teaching.

I want to recognize that... I really have such great respect for the [facilitators who are] doing this faculty development that's concerned with teaching. And so I really think it's great to have these programs and I think it's just hard to make full use of it because the work doesn't go away and everything needs to get done.

Moreover, when asked if she wanted to make any final remarks about the blended learning program, Mia apologized because she thought she wasn't being very helpful in terms of adding to the interview since she didn't feel like the program added to or promoted a change in her conceptions of teaching and course design: "I'm sorry. I really feel like I'm not being very helpful but I would like to just affirm, affirm it all. Because it was, I definitely feel like it was a good thing to do [participate in the program]." She further explained that she might not have gotten out of the program what was intended but she that she thought it was worthwhile:

I'm not sure that I got out of it what the intention was that I would get out of it. But I think that that actually is part of the learning process. And that something we always need to be thinking about is that students might take something else away that's also valuable.

Even though Mia is an experienced instructor with ample experience in using the topics covered during the blended learning program such as backward design and learning objectives, which would potentially make her learning curve a lot less steep so that she could use them to redesign her course and start developing it with blended learning in mind, she continually brought up the need of time to implement blended learning in her course. She also pointed out that the program could also cover learning objectives in a less objective and more holistic way to cater for different disciplines that are not so content-based.

### **Interview with John: Findings and Analysis**

#### ***Overview: Participant, Context, Decision to Participate in the Program, and the Course***

The third and last case described in this section is John. John teaches modern language courses in the College of Letters & Sciences and is in his early 40s. He has more than 15 years of teaching experience and about a third of which is in his current job.

He described that his job is “one hundred percent teaching.” However, he also said that he has “kind of a supervisor responsibility for teachers” who teach other sections of the course that he himself also teaches besides being responsible for arranging “materials, the testing, the different assessments, and so on.” Moreover, John also has an “unofficial role” of, what he “would like to call [himself], a learning technologist” and he is unofficially known as the “computer go-to person”. John explained that to fulfill his role as the “computer go-to person”, he gets a partial teaching load since instead of having to teach three sections, he teaches two, although he commented that “most of [his] colleagues also get” a similar reduction in teaching – but not every semester – which, for him, fulfilling the technologist role “translates into more work.”

John explained that, in his program, teaching is based on the communicative method, which he defined as the “grandfather of what’s called active learning,” or teaching language through “actual real communication.” He added that they also use the process approach to writing. In his words each of these approaches is “a very active approach” and that students “never passively listen to a lecture” and the instructor confirms student understanding, guiding them through “participation and discussion” and “walking them through the appropriate study steps that a student needs.”

John said that he heard about the blended learning program in an email. He shared he decided to participate in the program because as the “computer go-to person” he is expected to look for ways in which he can “innovate [their] course offering by integrating at times technology and at times avoiding technology in equal measure... finding places in which it can really add to the course.”

John clarified that the courses they offered are “basically already, in a way, blended” since they have three one-hour sessions per week but each of those sessions are thought of as “three hour chunks. So two hours of it is not happening in the classroom.” Therefore, he decided to participate in the program to “try to be more systematic about how [he] control[s] that out of class time which is still productive time” and also as a way of “producing out a program that [he] can share with [his] colleagues that they can implement.”

When talking about the course that he chose to work on during the program, John said he did not have only one course in mind but rather he was thinking about a sequence of five courses that are offered by the department and that students enter in one of such courses depending on their level of proficiency when they come in. In the lower level courses of the sequence, John mentioned they typically have between thirty and forty students who meet in small classes of 12-

18 students. In contrast, in the upper level some sections may have up to five-hundred students also divided up as above.

However, he did focus on one practical course which he felt hadn't been revised in a while and was perhaps the most "prescribed" course in that the coordinator tells the instructors what everyone needs to do, not giving "much freedom to the individual teachers" and so he thought it might be a "very good one to try to update." John added that the "ideas [he] got out of the [program] could have been applied in ways to other courses."

### *Changes in the Course*

When asked whether he had made changes to the course he was working on during the blended learning program, John replied that he makes changes to his courses all the time because he never looks at a course "as being good enough and never change." He added that some of the changes he made were not a direct result of the program so much because around the same time he participated in a conference where he learned new techniques for improving students reading comprehension that he wanted to incorporate in his course. In spite of the influence that the writing conference had on his courses, John said that the blended learning program made him "think about some things" and that he made his course "a little more tech forward and blended" by creating a different way to present content to students and also by moving activities online.

Later, the conversation turned to talk about what aspects of the course were changed. In talking about course objectives, unit objectives, course structure, and course content John commented: "I am sorry to say I didn't have any control over those things and that I had to judge that as something that I couldn't touch." In addition, he said that the training he has had in teaching about those topics went beyond what was covered in the blended learning program since he had substantial training in active pedagogy and that he has been a teacher trainer himself



for many years and therefore the blended learning program was “preaching to the converted” and that those aspects were a “less helpful part of the [program]” for him and that sitting down to look at course objectives and unit objectives for four weeks was “kind of a slog” because he could not change those aspects of the course and because he already had a “strong background” in that.

Still, talking about what aspects of the course he changed, John felt that he made more changes to the learning activities and the way he delivered content because he tried to “create online resources and online structures that were new to the course.” Moreover, according to John, he also changed the way he interacted with his students and the way his students interacted with course materials “significantly” based on the strategies he learned in the conference he took parallel to the blended learning program.

He also commented that he could not change the way he assessed students because he was not in a position to make that change since it would also depend on other faculty in his department. Nonetheless, he said he hoped that in the following year his new approach would get more buy in since it aroused interest of some of his colleagues who have worked longer in the department and therefore would potentially has more acceptance of others.

As he started talking about evaluating of his own course, John said that his informal evaluation was “very much based on the quality of interaction and the material produced by the students” but “the way that the course is evaluated officially is based on certain assignments that have been there for twenty years and will be there for the foreseeable future.”

At this point, the interviewer probes to confirm with John whether his participation in the blended learning program had an influence in the changes he made to his course. John replied: “To some extent it did. I don’t think I would have made the effort hadn’t I taken the [program].”

As an experienced instructor and teacher trainer, John reported that he is constantly looking for ways to improve his courses. Even though he was not in position to change some aspects of his course, he did change a few things such as the learning activities and the way he delivers content by offering more online resources to students. And while some of the changes he made were a result of another training he had, John thought that, to some extent, the program encouraged him to make the effort to change his course. He highlighted that having a dedicated space to talk about teaching and to exchange ideas with other fellow instructor was valuable but that pressures outside of the blended learning program prevented him from making further changes since it would depend on approval of other departmental faculty.

### *Changes in Conceptions of Teaching and Course Design*

Following the conversation about changes he made in his course, the next question in the interview asked whether John thought he had changed the way he viewed teaching and course design. After the question was asked, John paused for about ten seconds and murmured: “Let me think for a second.” Then he added: “Yes and no.” He paused again for four seconds and offered this explanation:

The ‘no’ is that I think I was already doing a lot of the things that I am continuing to do after the [program]. I think I feel more validated in doing them. But the way I teach a class day to day was already very interactive and had a lot of... a wide range of technology-enhanced and non-technology-enhanced [giggles] techniques for a variety of... I think more so than someone who is in... you know... other participants in the [program] seemed to be kind of trapped into a lecture format. Because I'm not in a lecture format – I do small classes – my classes are always interactive so that didn't change.

John made a brief pause and asked himself: “What did change?” Then he continued: “I have more respect for online learning in general.” John also commented that even though he is the technology point person in his program, he thinks of himself as being skeptical about technology: “Although I am this tech person in our program, I am fairly skeptic of technology. I want to see something work and be better than face-to-face before I'm going to trust it. And I

don't think it usually is." However, he recognized that "learning can take place from a digital medium." Furthermore, he added that he is "a little more accepting of that" and that he "liked some of the things... that other faculty on campus were doing that came out during the program." Finally, he evaluated that as the technology point person in his department he should be more trustful about the use of technology. He pondered:

So I left the [program] feeling a little bit more like 'All right. Look, I am in this role. I'm supposed to work on technology so why don't I, you know, work on technology and trust it more and really be more systematic and thoughtful about how I mean it and really try to be the person who pushes the boundaries?' So yeah, to that extent, yes.

While reflecting on the question whether he had changed his conception of, or the way he viewed, teaching and course design, John expressed he had a mixed feeling about it, saying that in some ways he didn't change his views but that in other ways he did. Even though he knew he was already doing a number of the things that were covered in the blended learning program, partly because of the format of his courses which are not in a lecture-based format, he also shared that after participating in the program he felt less skeptical of the use of technology and more responsible for promoting it and fulfilling his "computer go-to person" role by being more systematic and thoughtful about it.

Next, the interview moved to talk about what content covered in the program might have had an influence in changes in conceptions of teaching and course design. John replied that he was very familiar with many of the content covered in the program, namely backward design, writing unit and course objectives, and course structure, affirming that he used those even in a "more sophisticated way" than it was presented in the program. However, he valued the opportunity to have someone else tell him to take the time and think about those aspects for a specific course as he added: "Being asked to do it is always useful. But it wasn't something new

to me in terms of the procedure, and the process, and the purpose. That was something I was very familiar with.”

In general, John also felt the theoretical portion of the course was not very useful to him and that having an opportunity to listen to fellow participants and share ideas was valuable:

So I've never, I didn't feel like the good part was coming from the textbook in terms of that. What was interesting to me was ideas, specific practical ideas other people were doing. Somebody saying: ‘Oh, well, on my course, I do bla bla bla’. And I would go: ‘What exactly do you do?’ You know, that I really liked. The textbook itself that we were doing was going too much on the theory of that and not enough on the actual practice and I needed the practice.

John seemed to value the interactions during the program more than the actual content since he was already familiar with most of them. In addition, he felt like he needed more practical examples and also more practice on what was covered as opposed to just talking about it.

When asked whether the pedagogical and technological support team influenced changes in the way he views teaching and course design, John again said that he now has a “little more positive view toward blended learning.” He added that he even submitted a grant to design a MOOC and that even though he didn’t get it the first year, he said he was going to submit it again the following year. John affirmed that technology can only work “to a certain extent” since in the area that he teaches, people are “communicating with a human and no computers are going to be able to replicate that.” However, he recognized that “a certain extent of our human communication takes place online.” And he commented that “[t]he fact that we live in a digital environment means that we do have to engage with the digital environment while teaching a language because that is a part of our interaction as human beings.” And he concluded his thought by saying: “I am more open to that idea than I was before I took the [program].”

To wrap up this part of the interview, the following question asked whether there was anything else John would like to share about changes in the way he viewed teaching and course design. Then, he restated what he said earlier:

I see it more as a tool. I see more use in it as a tool than I did before. I was more resistant to it. And I see that when it is available, it is something that we have, in some sense, a duty to incorporate because of the environment that our students exist in. They exist in a digital environment. They thrive in... You know, they read digital [*sic*]. They communicate digitally. Those things are real and it should be part of how we deliver course content because we are then setting our course up in a way that reflects reality. And we should always do that as a language teacher. And I see it also as, in some ways, potentially time saving. And that itself can give you the freedom to have more face-to-face with students or between students because then you can push some of what you do, what you would have to do in the classroom, out of the classroom so that they can come in prepared. And I am more open to that.

And in commenting about teaching in general, he added:

So I still look at teaching as something that a good teacher needs to be capable of creating learning experiences regardless of the tools available and using all the tools available. In America 2016, digital environment is available so we should use it. I'm ready to step out of it when necessary.

In talking about what influenced changes in the way he viewed teaching and course design, John shared that having the time and space to think and talk and hear from others about teaching and course design was valuable to him. In addition, he felt that he changed his views of teaching and course design as he sees the use of technology in a more positive way he recognized that the use of technology and online and blended learning replicate the real, digital world in which students live, adding that using these approaches can be time saving and allow for more face-to-face time with students.

### ***Final Remarks***

In his final remarks about the program, John reflected on the way the program was led by the facilitators. John felt that they “led a little too much in certain ways and not enough in other ways. They spoke too much and filled in too many gaps. But didn't control the time and didn't set

up the interaction and then let it happen.” John clarified that he was “a teacher trainer and a trainer of trainers” and so he could be “a bit critical” about that aspect. He emphasized that what should happen is that the facilitator needs to “make sure that the person speaking is a participant, so the learner, not trainer, all the time.” In addition, he also noted that the facilitators in the program should “[s]et up the activity and then, hands off and not have so many trainers turning up all the time.” He explained that when facilitators would come and sit down with a group of program participants, they would “naturally defer” and he went on to say that:

That's what an adult, you know, that's what learners do when there's a teacher in the group, they defer to the teacher. Even if we're adults. Even if we're all teachers, that still happens. There needed to be this willingness to create a situation, step back from it, and get the feedback at the end.

John also spoke about the course content and commented that he wished that the out-of-class online activities gave participants an estimated time for completion and also that the content was marked as whether they were required or recommended for the participants. He felt those aspects could have been better communicated. Besides, during the blended learning program, there were weekly surveys and John felt that having a survey every week was “a little bit much” and that they could be only “a couple of times... a quarter of the way in, mid-way, three-quarters of the way and finish” and that would suffice.

John also reflected on whether other faculty could benefit from participating in the program. He commented: “I think that it is a great [program] and I appreciated the fact that it was out there... And the fact that it was out there and offered was really appreciated.” And he complemented by saying:

I've recommended it to many people and I am continuing to do so. I don't think they have taken it because not everybody's willing to, you know, take the initiative just to, you know, ‘I'm gonna [*sic*] go and sit for an hour [and work on my course].’ I might take it again.

When asked if he had any final remarks, John thought that the course book could be changed. He said that if the program could be “a lot more on the practical side earlier [into the program]” it would have been better for him. He added that “[t]he last four sessions [which were more hands on] were the best sessions in terms of what [he] expected.” He also thought that there could have been more “real examples of what people have done in other places for a blended course.” And he added: “There was a group of, you know, ten, twelve sometimes fifteen people who all made their own efforts. All sitting together in the room and the more that we can pull that together the more useful it would be.”

Towards the end of the interview, the conversation delved a bit more into whether professional development programs may influence changes in conceptions of teaching and course design. John commented that it depended greatly on the support that instructors get from their departmental administrators:

I think that depends hugely on the support or lack of support from management within the program where a person teaches. Is there a will to change? Is there a push forward or is there a push to not block those changes? And unfortunately where I’m sitting right now there's no will to change, to change anything. And, that means, you know, no matter how much effort you put into something... you’re gonna [*sic*] have to put in twice as much effort to fight for it and probably get a quarter of what you can. So it's... It really depends on the kind of the progressive view of the person who is the final decision maker. Unfortunately, you know, a person can only put so much effort in of their own... or it's a thankless task... And that is from what I've seen here [at the university] a real big issue. But to the point where I recently started for other positions [where] the attitude seems to be more open to change, open to trying, you know. And I will continue to look... because if you don't have the support to implement change, it's just, it's a huge amount of personal effort. You know, it's not all on the individual. It's very much the environment in which you work.

In his final comments, John said that even though the blended learning program was well run, there were times in which instructors could have given students more responsibility for their own learning. He also thought that the program could have been a little more practical and that it could have capitalized more on participants’ experiences. This is in alignment with best practices

in adult education where students guide their learning, sharing and hearing others' experiences and value opportunities to put what they learn into practice. Finally, John thought that participating in the program was worthwhile despite the fact that he was already very familiar with many of the topics that were covered, to the point that he has recommended it to other faculty repeatedly and also by commenting that he even might take it again.



## CHAPTER 7 – CROSS-CASE ANALYSIS

In this chapter I do a cross-case analysis of the participants who were interviewed for this study in order to report the similarities and differences in their experiences based on the research questions below.

1. What changes do faculty perceive in their conceptions of teaching and course design as they participate in a program to help them implement blended learning in their courses?
  - a. In what ways have faculty conceptions of teaching and course changed as a result of participating in the program?

From the cross-cases analysis it became clear that the interviewees valued their participation in the blended learning program and thought it was worthwhile. As a general rule, they all took something away of the program. In fact, the three faculty members interviewed who scored high in the survey, thought they changed their conceptions of teaching and course design. On the other hand, of the three faculty members who scored low in the survey, one said that he changed his conceptions of teaching and course design in some ways while the other two said that they did not, even though they changed strategies and activities in their courses as a result of their participation in the program. It is important to recall that in the overall results of the Perspective Transformation survey, which had a response rate of 55.6%, 93% (n=55) out of the 59 people who completed the survey responded that they had experienced a time when they realized that the way they viewed teaching and course design had changed.

### Changes in the Course

Before we start the cross-case analysis, it is also important to be reminded that the Perspective Transformation survey revealed that most of the respondents changed their courses in ways that varied from writing better learning objectives, modifying learning activities and assessment instruments to including or improving evaluation of their courses.

The participants interviewed in this study also changed their courses in different ways. These changes happened primarily in regards to the learning objectives, the learning activities, student assessment, the amount of student in-class seat time, and the promotion of active student learning.

### *Changes in Learning Objectives*

From participating in the program, most interviewees made changes to the learning objectives in their courses. In general, participants created, recreated, or revised their course and unit objectives to make them more specific and measurable so that they could more clearly communicate their goals with students. Creating good, strong learning objectives is an important concept and is one of the foundations of the blended learning program.

Four out of the six interviewees, three who scored high (Mia, Gina, and Ryan) and one who scored low (Mia) reported that they did make changes in their course learning objectives; one other faculty who scored low, John, was not able to change his learning objectives. With the high scorers, Mika reported that she now states more clearly to students the levels at which she wants them to perform in each topic in her courses by writing strong learning objectives. In addition, Gina revealed that her course objectives were only “marginally” in the syllabus and now she has strong course objectives and makes sure that she communicates them to her students. Moreover, Ryan also changed his learning objectives to better reflect the real world problems that students would face. Besides, even Mia, who scored low in the survey and was

already very familiar with writing good learning objectives, thought it was useful to revisit these concepts as it encouraged her to review her own course objectives and improve them. Mia said that her participation in the program made her pay more attention to details regarding her course objectives than she did before.

While most of the interviewees did change their learning objectives because of their participation in the program, one out of the six interviewees, John, who scored low in the survey, did not change his course and unit objectives. In fact, John was not able to make changes to the learning objectives because this decision was not up to him. It was something that would have to be agreed upon by other faculty members in the department. In addition, one other interviewee, Gary, was creating a brand new course and since he was already familiar with the concept of strong learning objectives, it was not possible to determine whether his participation in the program influenced the objectives that he wrote for his course.

### ***Changes in Learning Activities***

As far as learning activities, all interviewees said that participating in the blended learning program influenced the learning activities they had in their courses. When a course design is well thought of, learning activities reflect the objectives at the unit and course objective levels in order to support such objectives. As a result, when redesigning their courses for blended learning, all participants interviewed said that being in the program influenced their learning activities.

For instance, Ryan said he changed the way he viewed the use of in-class and out-of-class time. He changed the learning activities so that he could use in-class time for activities that cannot be done without the instructor's presence while implementing other activities that do not require the instructor for completion outside of the class time. Similarly, Gina created online

lectures and quizzes so that students would cover the content on their own in order to open up a space during the class to work on other kinds of activities that she used to rush through as she usually ran out of time because she would spend most of the time lecturing. Also, Gina decided to create activities to have her students complete before class in order to ensure that they came prepared to class so that she wouldn't have to use precious classroom time lecturing at them.

Even the faculty members who scored low in the survey and were already familiar with the concepts covered in the program reported that taking the program had an impact in their course learning activities. For instance, John created online resources and online structures that were new to his course. In addition, Mia changed the way her students interacted with the course materials, with their peers, and with the instructor since she had many more activities online as she changed her summer course from a four-week to a three-week format. She also designed new activities so that she could keep students engaged in-between classes in her newly redesigned course.

All six faculty members changed course learning activities in some way because of their participation in the blended learning program. The changes in the activities were primarily to offload some of the work that used to be done in class and move it outside of class time or to better align the activities with the unit and course objectives.

### ***Changes in Student Assessment***

As far assessment of student learning, most of the interviewees said that they changed how they checked their students' learning. All three who scored high in the survey changed the way they assessed their students. For the most part, the changes found in the analysis revolved around the use of backward design by focusing on the course objectives and then designing activities and assessments that would both help students achieve the objectives and check whether students met

the objectives. For instance, Mika went away from having two exams and a final and started using more quizzes throughout her course and incorporated more writing-based types of activities. In addition, she did more collaborative assignments, including projects and group presentations on topics that students themselves would choose. In a similar fashion, Ryan also said that he changed the way he assessed his students. For example, he changed his assessment instruments to focus more on what he wanted his students to be able to do by the end of the course so that they would reflect real world problems. Ryan went further to start using more project-based activities and move towards themes that were generated by the students. In addition, Gina revealed that, in the past, her students had fewer chances to demonstrate their learning but in her new course design she offered students more opportunities to demonstrate what they learned by including technology-based assessment instruments that students could take multiple times, at their convenience and then submit their work to her.

Likewise, Mia changed the way she assessed her students in that she started using more formative kinds of assessment than she did in the past. She also revealed that her participation in the program helped her think about assessment more and in a more systematic way as she tried to implement weekly formative assessments. This gave Mia an opportunity to ensure that the assessment instruments were better aligned with the unit and course objectives. On the other hand, John revealed that even though he wanted to change the assessments in his course, he was not able to because such decision would depend on other faculty in his department.

### ***Changes in Seat Time***

Besides improving the student learning experience and outcomes, one of the goals of the larger blended learning initiatives on campus, although not a required outcome of the program, was to encourage faculty to reduce the in-class seat time they have with their students which follows the

replacement model of blended learning (Twigg, 2003). What this attempts to achieve is to reduce the pressure on the demand for precious classroom space. Three of the six interviewees, two who scored high in the survey and one who scored low, reported that they changed in some way the number of face-to-face contact hours with their students and therefore decreased the number of hours they required for classroom use. In fact, Mia, who scored low in the survey, changed her four-week summer course into a three-week course. She achieved this by purposefully selecting the activities for outside of class time that students could complete on their own and made better use of the in-class time she had with her students. She also tried to keep students engaged in her shorter course version in between classes and over the weekends by creating more activities in which students had to interact with one another and with their instructor.

Similarly, in trying to make her course more appealing to students, Gina, who scored high in the survey, also decreased the number of class meetings and substituted online activities. To better cater for students' needs, she initially dropped most classes on Fridays and added opportunities for students to work on their own. However, because of a class conflict that some students had on Wednesdays, she later realized that it would be a better idea not to meet in class on Wednesdays instead. However, Gina reflected that replacing in-class meetings was not an easy thing to do. In fact, she said that it was hard to think of and prepare activities that would make it worth not being in class and that there has got to be a reason not to be in class.

Lastly, even though she kept the frequency of her class meetings, Mika, who also scored high in the survey, changed the number of hours she met with her students in each class by reducing them from three-hour to two-hour chunks. In order to do that, she moved the passive components of her teaching online and assigned quizzes before students came to class so that they were prepared. Essentially, Mika cut back her overall classroom time, where mostly what

she did was lecturing, from three to two hours per week, and now uses these two-hour chunks solely for more active student learning types of activities.

### ***Promoting Active Student Learning***

Five out of the six participants interviewed showed evidence of changes made in their courses that would promote active student learning. All three interviewees who scored high in the survey said that they implemented more active learning in their courses. For instance, Mika rethought and restructured her course having students do more of the knowledge acquisition on their own outside of class so that they could benefit from more meaningful interactions with the instructor in class. She changed how she used her in-class time to move away from a traditional lecture format into a more collaborative, active learning, student-centered approach. The interactions that Mika included in her course as a result of this change were more hands-on activities, discussions, skill building, collaborative group-work, and writing reports. She shared that now students have opportunities to debrief on studies, work on real cases, and develop treatment plans for such cases. Similarly, after redesigning her course, Gina had more available in-class time to work on things that she thought her students needed the most practice on. As a language instructor, Gina appreciated being able to focus more on student performance during class time and providing them with plenty of opportunity to be actively producing language as opposed to spend this precious meeting time with her teaching them content that they could learn on their own and ask for any required clarification in class. By the same token, Ryan mentioned that the main change he made to his course was to move away from the structured lecture time and replace it with much greater focus on having students come in prepared and then use the classroom time to work through a data analysis in class and try to have them engaged in higher level thinking which was his ultimate goal. Ryan added that the use of this new project-based

approach was more like what problems actually are in the real world since students won't have someone come up to them and say: "This is a linear regression problem. Do a linear regression."

Two out of the three instructors who scored low in the survey commented that they started to promote more active learning after their participation in the program. For example, in her newly redesigned summer course, which she changed from a four-week to a three-week format, Mia thought more coherently about moving some of the activities online that she would typically do in class since she would have less time available with her students and wanted to maximize it. Also, as a result of her participation in the program, she purposefully designed some activities that would keep students engaged in between classes and during the weekends. In a similar fashion, John saw that he could create learning activities that were potentially time saving. Therefore, he created activities that gave him the freedom to have more face-to-face time with students or between students by transferring some of what students had to do in class to outside of the classroom. This way students would come in prepared to engage in more meaningful activities. In addition, John also said that this was a perspective that he was more open to after taking the blended learning program.

### **Changes in Conceptions of Teaching and Course Design**

Now let's turn to the main issue of this study which is to identify faculty changes in conceptions of teaching and course design that stem from their participation in a program to design their courses to implement blended learning. It is important to remember that, of the 59 survey respondents, the vast majority, 93% (n=55) of program participants' responses to this question in the Perspective Transformation survey overwhelmingly revealed that by taking the blended learning program there was a time when they realized that the way they viewed teaching and course design had changed.



Further investigation into this topic corroborated the survey results. Of the six faculty interviewed in this study, the three who scored high in the survey said that they indeed changed their conceptions of teaching and course design. Ryan, for example, said that he certainly changed his course design and that the program was probably the only exposure he ever had to course design. He explained that he changed the way he thought about how to best use lecture, lab, and out of class times and how to assess his students' learning. In addition, Mika said that her participation in the program changed the way she thought about teaching and that it completely changed the way that she taught. She added that the program gave her frameworks, approaches, and terminology to think about her course in a structured fashion and as a result she now has concrete ways to organize what her goals are as opposed to letting her course be content driven. Mika also restructured how she taught her class using class time for more interactivity and higher order thinking activities. Similarly, Gina also said that her participation in the program had an effect on her conceptions of teaching and course design while she could not articulate it explicitly when asked directly. However, Gina mentioned several changes she made in her course that clearly illustrate changes in the way she viewed teaching and course design. For instance, she said she wanted to change her course because students seemed dissatisfied with it but she didn't know what to change. Her participation in the program, gave her ideas to do that. Consequently, Gina changed the number of in-class meetings so that students could work more on their own and use the class time for actual practice. She also looked for ways in which she could use technology to enhance the learning experience and tried to have more activities so that extrovert and introvert students could have more fair and equal opportunities to participate, practice, and perform with the use of technology.

In contrast, the three interviewees who scored low in the survey had different takes on the impact of the blended learning program in their conceptions of teaching and course design. When asked whether he felt his conceptions of teaching and course design had changed, John said that in some ways they had changed but that in others they hadn't. He clarified that, on the one hand, he didn't feel his views changed because he was already doing a number of the things encouraged by the program. On the other hand, he also felt that in some ways he changed his conceptions since he now has more respect for online learning and that in order to fulfil his role of the "computer go-to person" in his department, he felt that he should be more committed about the use of technology. While John had mixed feelings about whether his conceptions of teaching and course design changed, Gary and Mia, who scored low in the survey, were more direct and felt that they did not change the way they viewed teaching and course design. Gary, for instance, said that from a design standpoint it felt the same, clearly reflecting his low score in the Perspective Transformation survey. Similarly, Mia shared that her conceptions did not change since she was already doing most of the things that were covered in the program.

### **Challenges to Effect Changes**

In the Perspective Transformation survey, respondents mentioned factors that hindered their ability to make changes to their courses. Among the chief aspects that posed as obstacles for change were time and unwillingness by other stakeholders to effect change. In fact, the issue of time that is needed for a proper course redesign for blended learning was cited 7 times in the 59 survey responses. It is important to highlight that respondents were not asked to mention challenges that they faced – these were purely voluntary responses. In addition, the topic of lack of weight that teaching and course design have in tenure decisions was brought up twice and contrasted with the amount of work that is needed for careful course design. In accordance with

what was found in the survey, interviewees also brought up a couple of themes that worked as hindrances for changes.

These issues were also raised during the interview conversations. Among the three faculty who scored high in the survey, two professors, one assistant, Mika, and one full, Ryan, raised the issue of tenure expectations not placing enough importance in teaching. Mika also raised the issue of the amount of time that goes into proper course redesign. In fact, Mika acknowledged that participating in initiatives such as the blended learning program may be demanding and involve a great deal of work and time commitment upfront. She justified that there are benefits in the long run that might reduce the amount of work that faculty have to put into their teaching responsibilities, allowing them more time to work on different aspects of their courses to make them more engaging and to focus on specific needs of the students. Mika also raised the issue of tenure and lamented that teaching was rarely taken into consideration for such decisions.

Ryan also lamented that teaching is rarely taken into consideration when tenure decisions are made. He realized that while participating in faculty professional development initiatives is important, particularly for incoming faculty, this commitment takes a great deal of time and effort. In addition, Ryan cautioned that there is still a great deal of misconception that blended learning is less work, which he confessed that it was actually quite the contrary and it turned out to be more work for the instructor during in-class time. Likewise, Gina shared that she too faced a great deal of misconceptions from other faculty in her department who thought that blended learning was just about putting lectures online. As mentioned before, Gina explained that designing good blended learning experiences takes a lot more thought and careful thinking than ordinarily perceived.

Among the faculty who scored low in the survey, Gary also touched on the issue of time to devote for teaching. He commented that, as an assistant professor, he felt a great deal of pressure to produce research and that investing in his teaching would not make much difference for tenure decisions. He described that in the previous experiences he had as an instructor his responsibilities were primarily teaching. In contrast, at the moment, he felt like he could dedicate only about 20% of his time to his teaching duties. He finalized hoping that it would change after he got tenure so that he could get to do things that he would really like to with regards to teaching. Similarly, Mia complained that she wished she had more time to redesign her course. She said that during the program she had many ideas to incorporate in her course but she did not have the time to do so. She mentioned she wanted to develop activities and video lectures that could be implemented in her newly redesigned blended learning course format but for many of the learning activities that she wanted to incorporate, she lamented she did not have the time to create them.

Other aspects were also thought of as barriers to implement changes. For example, John revealed that he wanted to make more changes in his courses but was unable to because some of the most significant changes depended on other faculty members' approval as well. For instance, he stated he was unable to make changes to the course and unit objectives because that was something that was decided on a departmental level and not a course level. For the same reason, John was not able to make changes to the assessments in his course either. John wanted to write better course and unit objectives to better reflect his course and his students' needs nowadays and as a result align the assessments to the new learning objectives.

### **Final Remarks**

Toward the end of the interviews, participants were asked to share their final remarks regarding different aspects of the blended learning program. They offered various thoughts about the relevance of the program for other faculty, the issue of departmental support for their participation in the program, and their reflections on the blended learning program itself.

### ***Relevance of the Program for Other Faculty***

As far as the relevance of the program for other faculty, the interviewees were anonymous in saying that other faculty could certainly benefit from the program. In fact, just as a colleague recommended Mika take program by saying that it completely changed the way she thought about teaching, Mika too has encouraged other faculty in her department to also participate in the program. She went on to say that the program changed the way that she thought about teaching and that it completely changed the way that she taught. In talking about how effective the program was for her teaching, Mika commented that she wished the program was mandatory, particularly for incoming faculty since she saw many payoffs in the end in terms of making the teaching duties easier to fulfill and also in terms of instructor satisfaction. Mika also thought that faculty participating in the program would certainly get something out of it regardless of the amount of experience they had since it would spark something good in their teaching.

In a way, a similar thing happened to Gary since he decided to take the program because of a recommendation from another professor in his department as she invited him to participate in the program with her so that they could work on designing a new course for blended learning that they would teach together. Besides, Gary, who scored low in the survey, said that, even though he was an experienced instructor and that he mastered most of the program content before, he thought that participating was definitely worthwhile and as a result thought the program would also be relevant for other faculty.

Because of the issue of the lack of time discussed above, Mia also replied that the program could be valuable for other faculty, particularly those who had the resources for getting course releases because, in her opinion, more time is needed to create a course for blended learning. She added that the program could also be useful for instructors who had not had exposure to the content covered in the program such as writing learning objectives and using backward design.

However, Gina had another opinion on the issue of faculty participation in the blended learning program. While she thought the program was very useful for her and could potentially also be good for many other faculty, she felt like it was hard to encourage faculty participation in such initiatives. She explained that in her department some faculty did not think of teaching as being among their main responsibilities. In fact, she mentioned that it would be hard to encourage or convince faculty to participate in a program to improve their teaching since some didn't think that they should be teaching in the first place. In addition, Gina warned that some of her colleagues had misconceptions about what blended learning was as they thought it was just putting lectures online or cutting classes. For her, blended learning is much more complex than that and it should be about doing something that technology can enhance or that you can't do in class which requires a great deal of thought and careful work.

Similarly, Ryan also thought that there was a misconception that implementing blended learning was just putting things online and then having to do less work, to which he replied that, in fact, it made the class meetings more active and therefore translated into more work. Ryan also said that the program could be relevant for other faculty but cautioned that they should not try to change everything in their course at once but rather work on some aspects of the course and then get a snowball effect going. He also commented that the program could be beneficial

for incoming faculty since, even though this is when they might have the least amount of time, it would probably be most valuable to them and bring a lot of payoffs. He concluded by saying that including a mid-course evaluation to get student feedback early on was one of the most important things he did in his newly redesigned course as it helped him to set and manage expectations as well as to make adjustments to his course while there was still time.

Finally, John said that he the program would certainly be worthwhile for other faculty and had recommended the program to other people in his department repeatedly, praising that the program was, in his words, “great”. However, he did not think his colleagues were taking advantage of it since he had not seen them working on improving their courses.

### ***The Issue of Departmental Support for Program Participation***

One other topic that was asked of interviewees was about the issue of departmental support they might have gotten to participate in the program and consequently to implement changes in their courses. The answers shared by interviewees revealed different perspectives regarding this topic. Among the interviewees who scored high in the survey, Ryan said that he found support in his department while Mika thought the support offered was not adequate and Gina commented there was no support. For those who scored low, Gary said his department did offer support, while John and Mia lamented that they did not find any support.

Gary, for instance said that his department did not need any convincing and that plans for implementing blended learning in their programs in order to serve their student population were well established. The department saw value in blended learning and had it as a strategy that they would have to follow so that they could reach their students. Similarly, Ryan shared that his department was pretty good about supporting their faculty but did not specify what kinds of

support he received, if any. He added, however, that there is push from the department to get people through the program and that several other faculty members have gone through it.

On the other hand, Mika thought that departments should offer more support for faculty participating in such initiatives. She lamented that her department did not have a solid structure for professional development opportunities and felt that there wasn't a lot of departmental push or incentives as, in the end, it would benefit the department. She wished her department would release faculty from some other commitments, decreasing their teaching load, or even by sharing a course or taking a sabbatical to work on their courses. She exemplified that in her case it was surely beneficial for the department since she and another colleague created a new online course offering as a result of her participation in the program, which generated additional funds for the department. She also criticized that the teaching component of a faculty member's responsibility was not recognized as of great importance and that it did not receive as much attention where tensions between teaching and research usually arise.

Equally, Gina also lamented that her department did not offer any kinds of support for faculty to participate in the program. She explained that the culture in her department was to focus on research and that teaching took a secondary role. When she thought about what the department could do in terms of incentivizing people to participate in faculty development initiatives she felt hard pressed and it was hard for her to think of what they could have done since at the moment there was no doing in that sense by her department. Likewise, John commented that the success of a faculty professional development initiative depended greatly on the support or lack of support from departmental administrators. He added that if instructors participate in a program but there is no will on the part of the department to change or even to allow for changes, it is a thankless task. He lamented that in his department support does not



exist and that he has to put in a great deal of effort in order to be able to implement changes. Furthermore, Mia shared that her department did not offer any incentives in terms of course release for her to participate in the program or to create a blended learning course. She added that if faculty do not have any kind of resources to work on redesigning a course, it would be hard to do all the work that needs to be done and that, otherwise, faculty would probably only be able to take bits away from the program.

### ***Reflections on the Blended Learning Program***

As far as participants' reflections about the blended learning program itself, interviewees also shared a few thoughts. Two of them, John and Gina, wished the course would have delved into the practical side a little more and Gary hoped for an upper level class to work exclusively on the development and implementation of ideas. Mia wished the course would cater for disciplines that are not too content-focused. Mika and Ryan, in turn, were satisfied with what they got out of the program.

Mia thought that it would be useful if the program paid more attention to the different learning styles represented in the program. For her, the program was too focused on faculty whose disciplines teach students content and that it could have placed some emphasis on developing students as learners and as critical thinkers. She wished the program would cover learning objectives and other topics in a less objective and more holistic way to cater for disciplines that are not as content-based. And even though she had experience with most of the content covered in the program, she still found value in it. She explained that she might not have gotten out of the program what was intended to but she pointed out that this was also part of the learning process.

Gary, on the other hand, wished that a second level of the program were offered as he already mastered most of the content. He thought that this second level class could assume that instructors already knew about learning objectives, assessment, and evaluation and that it would really focus on blended learning tools and how to develop and implement good blended learning experiences for students. He also proposed that the program added a deliverable, a unit that participants would have to present to their peers and get critiqued on so that it could be improved as part of the iterative design process.

In addition, John thought that sometimes the program facilitators led too much and that it prevented faculty from actively participating. He wished he had heard more about participants' experiences in designing their blended learning courses as he thought they would be extremely valuable to hear about which is in alignment with good practices in adult learning. He also said that the program could have made it more explicit which activities were required and which were optional always indicating the amount of time required for each one. Finally, John wished that the program could have been a lot more practical early on and working on real examples. Likewise, Gina also felt like it would be useful to have more hands on with the technology. The reason for that was, as she explained, that the actual implementation of a blended course can be challenging and may require skills that not everyone has. She added that she would have appreciated opportunities to actually develop and implement her ideas besides just designing them and she lamented that there aren't such program offerings on campus.

On the other hand, Mika shared that while participating in the program she felt hard-pressed to give recommendations in their weekly surveys because she thought the program was really well run and that she took full advantage of her participation. However, she did say that she would have benefited from having more free time during the program meetings to work on

her course since faculty are usually overwhelmed with work. She pondered, though, that it might just be her personal opinion and that others might not agree with it. Similarly, Ryan thought the course was put together in a perfect way. However, he called attention to the fact that some instructors were a little impatient with what was covered in the first few weeks of the program as they wanted to see practical uses of technology. He acknowledged that it would have been a mistake to work on technology before covering the foundational aspects of why and when to implement blended learning in order to reach the learning objectives. He concluded by saying that he got the pieces that he needed in order to implement his ideas.

## **CHAPTER 8 – DISCUSSION, IMPLICATIONS, AND CONCLUSIONS**

This chapter includes a discussion of the major overarching themes that emerged during the data analysis process in this study. Then, I offer a critique of the study followed by implications for blended learning professional development initiatives and for future research. Finally, the chapter ends with a conclusion with a brief summary of the research findings and recommendations.

### **Discussion**

This study aimed at identifying and understanding changes in faculty conceptions of teaching and course design that resulted from their participation in a professional development program to design their courses to implement blended learning. The surge of online and blended learning courses indicated by several studies (e.g., Allen & Seaman, 2014; Carter, 2008) highlights the importance of faculty professional development initiatives to prepare instructors to teach in these new delivery formats.

In addition, in their report, *Future of Higher Education*, the PEW Research Center revealed that colleges and universities are investing in blended learning and that many experts in the field predict that there will be an increasing movement to blended courses (Anderson, Boyles, & Rainie, 2012). However, redesigning a face-to-face course into a new format may be “both simple and complex” (Garrison & Kanuka, 2004, p. 96) and such initiatives should strive for a shift in pedagogical paradigm as opposed to simply replicating traditional classroom practices (Graham, 2006).

The findings of this study are potentially valuable for professionals who are invested in promoting training for blended learning implementation as they provide a glimpse into whether

participation in professional development programs for blended learning may promote a change in faculty conceptions, the nature of these changes, and how these changes manifest in their teaching and course design. Furthermore, this study also revealed challenges that program participants may face to design, develop, and implement their courses, and explored faculty thoughts about the relevance of the program for other faculty, the issue of departmental support for their participation in the program, and their reflections on the blended learning program.

In order to achieve the goal of this study, first, 106 past blended learning program participants were invited to answer a survey to explore whether they had undergone a perspective transformation regarding their conceptions of teaching and course design, according to Mezirow's (1991, 2000, 2012) ten phases of perspective transformation. From the results of the 59 respondents (a 55.66% response rate) who completed the survey, six faculty members, three who scored high in the survey – meaning that they perceived they had undergone a change in their conceptions – and three who scored low – who did not perceive they underwent change or did so to lesser degree – were then selected for subsequent interviews to provide further insight into the degree and nature of such changes or lack thereof.

The analysis of the survey responses, described at length in chapter four, found that the vast majority, 93% (n=55), of the 59 faculty members who completed the survey agreed that they had experienced a time when they realized their conceptions of teaching and course design had changed. The survey probed deeper in trying to identify whether faculty had gone through the phases of Mezirow's (1991, 2000, 2012) Perspective Transformation. As a matter of fact, most faculty felt they had experiences that caused them to question the way they viewed teaching and course design (n=52; 88%) or that caused them to question their ideas about their role as they taught and designed courses (n=48; 81%). However, the responses to whether they no longer

agreed with their previous views of teaching and course design were more evenly distributed with 37% (n=22) agreeing or strongly agreeing, 32% (n=19) feeling neutral, and 31% (n=18) disagreeing or strongly disagreeing. Similarly, responses were also evenly distributed when faculty were asked whether they felt uncomfortable with traditional expectations of teaching and course design when 32% (n=19) agreed or strongly agreed, 32% (n=19) were neutral, and 36% (n=21) disagreed or strongly disagreed.

In contrast, most respondents (n=41; 69%) felt that other participants in the program also questioned their views about teaching and course design. Besides, the vast majority of participants also indicated that they would consider a different way of teaching and designing courses (n=56; 95%). More importantly, when asked whether they would try to figure out a way to adopt their new views of teaching and course design, the vast majority, 95% (n=56) said they would. Similarly, most respondents (n=46; 78%) also said they had acquired the knowledge and skills they needed to design their courses for blended learning. Also remarkably, the vast majority of respondents, 95% (n=56), indicated that they intended to try out their new conceptions of teaching and course design. As a result, most respondents (n=44; 75%) answered that they started to think about the reactions they might get from these new conceptions they held. Finally, most respondents (n=52; 88%) indicated they intended to act on or adopt their new views of teaching and course design.

It is important to call attention to the fact that faculty responses were largely positive regarding the ten phases of Mezirow's (1991, 2000, 2012) Perspective Transformation, ranging from 69% to 95% in most survey items. These questions asked whether participants had experiences that caused them to question their conceptions and their roles, noticed that other people also questioned their views, had considered acting in a different way, tried to figure out

ways to adopt new views, had gathered the knowledge and skills they needed to adopt these new views, intended to try new views, began to think about the reactions they might get by adopting these new views, and whether they took action or intended to take action to adopt these new views in regards to their conceptions of teaching and course design. On the other hand, only two survey items had a lower level of agreement with around one third of the responses roughly distributed between people who agreed or strongly agreed, felt neutral, and disagreed or strongly disagreed. These survey items related to whether faculty no longer agreed with their previous views or felt uncomfortable with traditional expectations of teaching and course design.

Therefore, we can conclude that even though the vast majority of faculty (n=55; 93%) admitted that they changed their conceptions of teaching and course design, most of them (about 66%) did not necessarily reject their previous views about, or felt uncomfortable with, traditional expectations of teaching and course design. That is, even though most of them changed their conceptions of teaching and course design, in some ways, they were able to reconcile them with their previous views of, or were still comfortable with, traditional expectations of teaching and course design.

In addition, the analysis of the responses to the first open-ended question in the survey confirmed the emergence of some themes that had to do with changes in faculty conceptions of teaching and course design. The question asked participants to describe what happened when they realized their conceptions of teaching and course design had changed. The analysis of individual faculty members' voluntary responses to this question reflected their views of teaching and course design prior to their participation in the blended learning program. Some voluntary responses also brought up aspects that triggered their thoughts, or caused them to think about their teaching and course design. In addition, some faculty members also exemplified

changes they made to their teaching and course design that stemmed from changes in their conceptions. Still, for some faculty members who were already using active student learning strategies, the concepts that they were exposed to during the program served to reinforce current teaching and course design practices that they had. On the other hand, some responses identified challenges that program participants came across as they tried to redesign their courses or actually implement their redesign. Also, some faculty members reported negative reactions that they faced as a result of the implementation of their new course design. Lastly, some responses also highlighted positive outcomes of the blended learning program.

In a similar way, the responses to the second open-ended question in the survey also revealed the emergence of some of the same themes that were found in the analysis of responses to the first open-ended question. The question asked participants what being in the blended learning program had to do with changes in their conceptions of teaching and course design. In general, the voluntary responses to the second open-ended survey question were shorter, more objective, and matched the themes that emerged in the first open-ended survey question, describing what triggered their thoughts about teaching and course design, changes they had in their teaching and course design as a result of changes in their conceptions, program content that reinforced their current practices, and positive outcomes of the program.

Careful analysis of the data from the Perspective Transformation survey allowed me to guide my inquiry and to objectively select participants for the subsequent interviews to gain a better understanding of the nature and extent of faculty changes in conceptions of teaching and course design. These interviews were discussed in detail in chapters 5, 6, and 7. Three survey respondents who scored high, meaning that they perceived they had undergone changes in their conceptions, and three who scored low, who did not perceive they underwent changes or did so



to lesser extent, shared their perceptions of changes in their conceptions of teaching and course design. All three faculty members selected for an interview who scored high in the survey confirmed that they indeed perceived that they had changed their conceptions of teaching and course design which resulted from their participation in the blended learning program. On the other hand, of the three faculty members selected for an interview who scored low in the survey, two of the them confirmed that had not perceived a change in their conceptions of teaching and course design and one reported that he changed his conception in some ways but not in other ways.

Furthermore, the analysis of the interviews saw the emergence of themes that were in alignment with those found in the analysis of the open-ended survey responses. In general, faculty members changed their courses in some way as a result of their participation in the program. In fact, four of the interviewees, three who scored high in the survey, and one who scored low said that they changed the learning objectives of their courses. Of the other two who scored low in the survey, one did not change his course objectives – since it was beyond his responsibilities even though he wanted to – and the other was creating a new course therefore did not report a change. Moreover, as far as course learning activities, all of the six interviewees reported making some kinds of changes to them. In regards to assessment of student learning, the three interviewees who scored high in the survey shared they made changes to the way they assessed their students. As for the interviewees who scored low, one said she changed her the assessments in her course, another said he couldn't because it was a decision that was not up to him, and one was creating a new course. The number of hours of seat time with their students was also a theme that emerged. Two interviewees who scored high in the survey and one who scored low reported they decreased the number of hours of seat time. Conversely, one who

scored high and two who scored low did not change the number of hours of seat time. The last theme that emerged related to changes in the courses was the promotion of active student learning – five of the six faculty members interviewed said they promoted more active student learning in their courses.

During the interview data analysis, the theme of challenges that program participant faced to effect the changes they wanted to make in their courses was also recurrent. Just as in the survey responses, among chief concerns of interviewees were themes that revolved around the issue of the time needed to properly redesign and develop a course for blended learning, the tension between the importance given to research versus teaching with regards to tenure decisions, the lack of willingness to effect changes by some stakeholders, and the misconception that blended learning is simply a way to cut class and put lectures online. All three interviewees who scored high in the survey reported at least one of these problems in their departments. Besides, two interviewees who scored low also reported these obstacles in their departments.

Finally, the interviewees shared their thoughts about the relevance of the program for other faculty, the issue of departmental support for their participation in the program, and their reflections on the blended learning program. All six interviewees said the program would be valuable for other faculty members. Furthermore, four of the interviewees, two who scored high in the survey and two who scored low, reported that the support offered by their departments for their participation in the blended learning program or to implement the changes they wanted was inadequate or inexistent. The lack of support was primarily associated with the lack of release of time or of a formal structure for faculty professional development. Lastly, participants offered their reflections on the blended learning program. All six interviewees thought the program was worth their while. Nonetheless, they had some remarks about their experiences while in the

program. In fact, the three interviewees who scored low wished there had been more practical applications of technologies for blended learning – perhaps because they were already familiar with the content of the program – and one of them further suggested a second level of the program that would go beyond the design phase and focus on the actual development and implementation of blended learning.

Some authors suggested that, in order to take full advantage of the potential of blended learning, there needs to be a fundamental rethinking of what it means to design a course and what means to teach, changing the faculty role from conveying information to becoming a coach in guiding the learning process. The Perspective Transformation survey results showed that most respondents agreed that they changed their conceptions of teaching and course design. In addition, the survey results also indicated that most respondents generally agreed with the questions regarding their perspective transformation.

However, further investigation into the issue through the in-depth interviews that were later conducted revealed that, even though interviewees did go through changes in their conceptions of teaching and course design, the nature of those changes were not transformative in the sense of Mezirow's (1997, 2000, 2012) definition of Transformative Learning. Although Mezirow's Transformative Learning theory was used as a hypothesis to describe the transformations that faculty might go through as they participate in a program to redesign their courses to implement blended learning, the kinds of transformation that they underwent were not life altering and therefore did not match Mezirow's theory. Transformative Learning theory seems to address much more deeply rooted and emotionally charged issues, implying a basic transformation of one's worldview and specific capabilities of self, by critically reflecting on

one's beliefs, consciously making plans, and taking action, resulting in novel ways of defining one's world and "significant personal [emphasis added] transformations" (1997, p. 7).

Actually, evidence found in the interviews showed that the changes that faculty went through were primarily of two kinds: changes in the course and; changes in conceptions of teaching and course design. The changes found in further analysis of the interview data are more aligned with Strikes and Posner's (1982) Conceptual Change theory. Conceptual Change theory evolved out of the areas of cognitive developmental psychology and science education as scholars explored how children acquired and changed their understanding of the world and how students assimilated scientific concepts. In fact, Conceptual Change theory has its roots in Kuhn's (1962) work on paradigm shifts in the sciences and Piaget's (1970) studies on the assimilation of new information and accommodation of prior knowledge when new information is acquired. Further, Conceptual Change theory proposes that newly acquired information is not simply added to existing one. On the contrary, in the learning process, in light of new information, conceptions are rearranged and transformed.

The literature on Conceptual Change features a number of models that have been proposed by different scholars. The first theory was proposed by Posner, Strike, Hewson, and Gertoz in 1982. The authors suggested that if a conception that learners have is functional and if they can solve problems with it, then they won't feel the need to change their conception. In addition, even if learners can't solve some problems with their existing conception, they may only make moderate changes to their conception. In these instances, assimilation happens without the need for accommodation. Furthermore, for conceptual change to occur, there needs to be dissatisfaction with the existing conception and an acceptance of a new conception.

With these premises in mind, Strike and Posner (1982) proposed four conditions for successful conceptual change: 1) there must be dissatisfaction with current conceptions and a realization that action is necessary; 2) a new conception must be intelligible as substitute for existing views; 3) a new conception must appear initially reasonable; and 4) a new conception should suggest the possibility of a fruitful research framework for addressing new questions. For the new conception to be intelligible, it needs to be clear enough so that it will make sense to the learner. It also needs to be reasonable, meaning that it must be plausibly true. Also, it needs to be fruitful in the sense that it needs to be productive to the learner in order to solve current problems. One of the key points in Posner et al.'s theory is that there must be a cognitive conflict that causes the learner to be dissatisfied with his or her existing conception. Next, the learner may accept the new conception as intelligible, reasonable, and fruitful.

In science education, Conceptual Change theory suggests that conceptions are changed when teachers realize that there are differences between their preconceptions about teaching and learning and the new ideas that they are exposed to (Posner, Strike, Hewson & Gertoz, 1982; Strike & Posner, 1985, Strike & Posner, 1992). Posner, et al. (1982) explained that preconceptions were ideas about a topic that were established before any formal instruction. The authors warned that in most cases preconceptions were inaccurate or incomplete. They also stated that these preconceptions could result in resistance to change and proposed that in order to adjust a misconception, individuals have to experience a conceptual change.

In their work, Strike and Posner (1992) further noted that the four conditions presented above assume that learning happens in a “conceptual context”, which they labeled “conceptual ecology” and submitted that it consists of “cognitive artifacts as anomalies, analogies,

metaphors, epistemological beliefs, metaphysical beliefs, knowledge from other areas of inquiry, and knowledge of competing conceptions” (p. 150).

In addition, Strike and Posner (1982, 1992) also based their work on studies about misconceptions. These studies suggested that learners do not come to learn new concepts as blank canvas, instead, they carry pre-existing knowledge about scientific matters. They further proposed that a misconception is not simply a mistake of a false belief but a candidate for a new conception. In fact, Strike and Posner (1992) wrote that “old conceptions and candidates for their replacement are understood and appraised by learners in terms of concepts they already possess” (pp. 149-50).

In a revision of their original Conceptual Change theory, Strike and Posner (1992) recognized that a “wider range of factors needs to be taken into account in attempting to describe a learners' conceptual ecology. Motives and goals and the institutional and social sources of them need to be considered.” In addition, they also posited that existing conceptions and misconceptions “are not only objects on which a learner's conceptual ecology acts, they are themselves parts of the learner's conceptual ecology. Thus they must be seen in interaction with other components.” A third point reviewed by the authors regarding conceptions and misconceptions is that they may exist in “different modes of representation and different degrees of articulateness. They may not exist at all but may easily appear to do so, because under instruction or in research they are generated by other elements of a conceptual ecology”. Finally, they wrote that both a “developmental view” and an “interactionist view” of conceptual ecology are required, meaning that “all the elements have developmental histories and that these histories cannot be understood apart from their interaction with other elements in the learner's conceptual ecology” (p. 162)

Although the conceptual change theory described above was developed for students, they may be applied to teachers since they are just as resistant to change as students. As a matter of fact, adult learners might inherently be resistant to change as these changes might pose risks to them and expose them to situations of discomfort. They sometimes fear that implementing new ways of teaching and designing courses may adversely impact their practice and lower student satisfaction and outcomes.

Scholars who have built on the conceptual change theory briefly described above have used these frameworks to create models that can be applied to adult learners and teachers more specifically. Though there have been ramifications in other areas in the conceptual change literature, Feldman's (2000) Practical Conceptual Change model better aligns with the purpose of this study and therefore it will be the focus of this section.

In fact, Feldman (2000) developed his Practical Conceptual Change model while examining how teachers accommodate conceptual change in learning new theory. Feldman's model is a teacher-based model grounded on existing theories of conceptual change and closely resembles Posner et al.'s four conditions for students' conceptual change. For Feldman, in order for conceptual change to occur, the following conditions are necessary for the accommodation of a practical theory. First, "a teacher may become *discontented* [emphasis in original] with a practical theory because she recognizes it as ineffective, unsuccessful or because it leads to dissonance or dilemmas in practice." He went on to add that for this to happen, a teacher must perceive that "something is morally, ethically, or politically wrong in her practice." Second, Feldman suggested that "a new practical theory must appear *sensible* [emphasis in original] for it to be accommodated by the teacher." He explained that the new practical theory must be "comprehensible and reasonable" and in alignment with the teacher's "technical and normative

goals so that the actions or goals that emerge from it ‘make sense.’” Third, for Feldman, before undergoing accommodation, the new practical theory must be beneficial. He explains that “the new practical theory must lead to better (in a normative sense) [parenthesis in original] actions or goals for it to be accommodated.” Finally, Feldman proposed that for new practical theory to be accepted, it should be “illuminating or enlightening”, “in the sense of providing new understanding of practice situations” so that it “can be used to modify the new practical theory to the particularities of different situations” (pp. 612-613). The difference between the original Posner et al.’s (1982) Conceptual Change theory and Feldman’s Practical Conceptual Change model is that the latter is a teacher-based model that recognizes the existence of metacognition in conceptual change, which means that an individual monitors his own reflective activity.

One approach to try to foster changes in conceptions in faculty is to present them with new information about learning theory accompanied with research findings. In this study, the misconceptions are faculty existing stances of what it means to teach and design courses – in other words, how they go about performing their practice in contrast to the views of teaching and course design presented in the blended learning program. Of the faculty selected for interviews only the three who scored high in the survey reported they changed their conceptions of teaching and course design. Therefore, the following discussion will focus on what was reported by these faculty members.

According to Feldman’s (2000) Practical Conceptual Change model, faculty must believe that revisions in their current conceptions are necessary, which can only occur when they are dissatisfied with their existing ways of teaching and designing courses. For such a realization to happen, faculty must consider their current conceptions and their newly acquired views from the program and reflect on the two confronting scenarios with the goal of improving their teaching



practice in order to positively impact student learning. This is the first step in Feldman's (2000) model.

During the blended learning program, as described in Chapter 3 under the Setting and Context section, participants were presented with new ways of teaching and designing courses. In this context, participants had an opportunity to review their existing strategies in order to redesign their course. In this process, participants assessed whether their approach was consistent or inconsistent with the content presented in the program. The faculty who scored high in the Perspective Transformation survey and were selected for interviews reported that they began to question whether what and the way they taught, the activities they had, and the way they assessed their students matched the goals of the course. For example, Mika said that before participating in the program she lacked pedagogical knowledge and that the program was a "constant learning process" for her. Also, for Ryan, the program was "probably the only exposure" he had ever had to "formal how to design a class" type of training except for the fact that he evidently had had experience taking classes as a student, seen syllabi, and consequently developed courses using the same structure he had always used without questioning why the courses were structured that way. Also, he justified that he taught his course in a particular way because that was the way that courses were taught. Similarly, Gina was sensing student dissatisfaction in her course but she said she didn't have any ideas about what she should change and that the program gave her ideas. These examples from the interviews with the faculty who scored high in the survey illustrate that the first condition of Feldman's (2000) Practical Conceptual Change model was met. In addition, a more extensive description of the experiences of the faculty who scored high can be found in Chapter 5.

Following Feldman's (2000) model, the tension between faculty existing conceptions and the new views presented in the blended learning program encouraged them to consider new strategies that would make sense to them and apply these to their practice. The three faculty who scored high and were interviewed reported that what they learned during the blended learning program made sense to them. In fact, Ryan said that he reevaluated his course focusing on what he wanted students to actually be able to do at the end of the course. Similarly, Mika said she rethought how to restructure her course based on what she learned in the program. Besides, Gina thought that she could create a different way of assessing her students that would give them more practice, flexibility, and opportunities. These examples show that the second stage of Feldman's (2000) model was met. Other examples of how their newly acquired views made sense for these faculty members can also be found in Chapter 5.

The third stage of Feldman's (2000) model proposes that the new practical theory must be beneficial for conceptual change to occur. In this study, the interviewees who scored high reported they thought their participation in the program was useful. This is well documented in Chapter 5 and in Chapter 7 under the section Changes in Conceptions of Teaching and Course Design. The examples presented here illustrate that the findings are in alignment with the third stage of Feldman's (2000) model. For instance, for Ryan, the most important thing he took away from the program was learning how to think how to design learning experiences and ultimately a course. He added that he reflected it was important to give students practice with real world problems. In a similar way, after writing her course and unit objectives, Gina reported she used them as checkpoints when designing her activities and preparing her lesson plans to make sure all of the learning objectives were covered. Also, Mika said that she saw how she could use new strategies to give her students more opportunities to work on clinical problems while working in

groups in order to build their confidence since those are challenging and intimidating tasks in her discipline.

In Feldman's (2000) model, the fourth and final stage suggests that for new practical theory to be accepted, it must be "illuminating or enlightening" (p. 613), meaning that it can be used to modify the new practical theory to new situations. The analysis of the interviews with faculty who scored high also showed that this happened. For example, Gina thought that her participation in the program allowed her to think more critically about how she could further improve all of her courses and make them more meaningful for her students. She added that the strategies she incorporated were so much better that she didn't think going back to the old way was feasible. Similarly, Ryan said that besides adding projects to the kinds of assessment he originally had and offering the opportunity for students to work with real data, he is now moving to student-generated projects so that they have a chance to design their own research projects. Besides, Mika revealed that the program gave her a framework and a deeper understanding of pedagogy and concrete ways to think about teaching and course design. She reported that it changed everything for her. In fact, she used what she learned to design a fully online course, which was not an anticipated outcome of the blended learning program. These examples show that these faculty members used their new practical theory in a "illuminating or enlightening" way.

Although the majority of the Perspective Transformation survey respondents reported changes in their conceptions of, or the way they view, teaching and course design, further investigation into the types of changes, through the interviews that were conducted, revealed that the changes were not transformative in the sense of Mezirow's Transformative Learning theory.

They were however, in alignment with Feldman's (2000) Practical Conceptual Change model, which indicates that the high scorers interviewed went through a conceptual change.

The literature is still scarce with regards to changes in conceptions of teaching and course design that result from participation in faculty professional development programs, particularly as it relates to designing courses for blended learning ((Moskal, Dziuban, & Hartman, 2013; Torrisi-Steele & Drew, 2013). Moreover, most of the studies on blended learning focus on surface features and fail to address key pedagogical issues (Graham, Henrie & Gibbons, 2014) and therefore do not explore important aspects regarding what actually changed which results in the lack of a foundation for faculty professional development and support.

To this date, 221 faculty members have gone through the blended learning program and the relevance of such faculty professional development initiative should be highlighted because it has the potential to impact a great number of students even when faculty participation is not as high as initially intended and it may justify the efforts (Schnackenberg, Maughan & Zadoo, 2005).

### **Critique of the Study**

The data collection in this study was conducted in two stages. The first stage comprised of a survey that was sent out to 106 faculty members who participated in a program to help them design their courses to implement blended learning between the fall semester of 2014 and the fall semester of 2015. Seven program sections happened during that time, each having around fifteen participants. Of the 106 faculty who were sent the survey, 59 completed it, yielding a response rate of 55.66%. Even though the response rate was well above the satisfactory level, the survey instrument was not able to capture important nuances in faculty experiences in regards to changes in their conceptions of teaching and course design.

The second stage of the data collection in this study featured interviews with six respondents, three who scored high in the survey and three who scored low. Even though it might seem that choosing six participants was too few for a sample size in terms of the data they might yield and in terms of the representativeness, the different background and perspectives of these faculty members, combined with the data from the survey responses, proved to be an overwhelming amount of data for analysis for a dissertation. A reflection on the process made me question whether dividing this study into two – the first presenting the analysis of the survey data and the second featuring the analysis of the interview data – would have been a better approach.

The size of the sample for the interview data collection could be considered limiting in this study. However, this study is not meant to generalize the effects that blended learning professional development might have in faculty conceptions of teaching and course design. Instead, it attempts at shedding some light on the nature and degree of changes in those conceptions and how they might manifest in their teaching and course design. One other possible limiting aspect of this study is that the data was self-reported for both the survey and interview processes. In addition, the questions asked in both data collection instruments may have prompted faculty members to talk about their experiences in ways that they had not previously considered.

Finally, it felt a bit unsettling to discuss faculty perceptions of changes in their conceptions teaching and course design and how they manifest in their actual practice without having the chance to actually observe them practicing before and after the blended learning professional development program. Nonetheless, the data collected and analyzed both in the survey and the interviews revealed faculty specific experiences that manifested in their teaching

and course design that stemmed from changes in their conceptions from their participation in the program.

## **Implications**

### ***Implications for Blended Learning Professional Development Programs***

Blended learning has the potential to improve student outcome and this has been credited to the opportunity that faculty take to redesign their courses (U.S. Department of Education, 2010).

However, not all blended learning initiatives will fulfill the promises of increased efficiency and improved student learning. In order for this to happen, a complete shift in paradigm is necessary as opposed to a mere replication of traditional classroom practices (Graham, 2006).

Academic departments, colleges, and universities that want to move away from the lecture format and want to invest in new delivery formats such as blended learning in order to promote more active student learning should provide adequate training opportunities and support for their faculty. This study served to raise awareness that it is important to identify and understand the needs of faculty when planning for training and support in relation to their specific contexts. If faculty needs are not met, there is a great risk that the results, particularly effective changes in course design, teaching, and consequently learning, will likely be marginal. These initiatives should allow for faculty to share their experiences and opinions and voice their concerns. In addition, institutions should take advantage of this opportunity and consider faculty professional development as a whole and try to create a structure that builds a path for progressive personal growth. Institutional units should also take this opportunity to promote pedagogical advancement.

Faculty who want to invest time in improving their courses and therefore impact student outcomes should be provided with opportunities to achieve their goals. However, the incentives

that could be offered for such undertaking are many times, unfortunately, inexistent or insufficient. Faculty have claimed for more time to devote to proper course design and development to enhance their teaching and consequently impact student learning. They have also lamented the lack of recognition within their departmental units for the time and effort invested to improve teaching, primarily when it relates to tenure decisions.

As far as blended learning initiatives, it is important for institutional units to take the lead in promoting them since there is still a great deal of misconceptions among faculty, school administrators, and students that blended learning is just skipping classes and putting lectures online. One way in which this can be achieved is by having a clear definition of what blended learning is in the institution's individual context, what it is not, and what is hoped to be gained with the implementation of blended learning.

All constituencies interested in improving teaching and consequently impacting student learning should be involved in promoting initiatives that support good pedagogical practices. Most faculty in this study took advantage of what the blended learning program had to offer. In fact, they took the opportunity to be around peers who were thinking about teaching and learning and worked to, in effect, improve their courses. Therefore, the blended learning program served as an opportunity for them to reflect on their teaching and improve their pedagogical practice.

This study showed that most faculty do change their conceptions of teaching and course design from participating in the professional development program to implement blended learning and the findings also revealed that these changes manifest in their practice as they teach and design courses, which is alignment with other studies that have shown that when preparing to teach online or in a blended learning format, faculty improve their teaching practice (Dziuban, Hartman, Moskal, & Robinson, 2007; Skibba, 2013). Therefore, the implications described

above are well aligned with the research questions as they offer recommendation that may impact the effectiveness of professional development programs to foster changes in faculty conceptions of teaching and course design that have the potential to impact their practice and consequently student outcome.

### ***Implications for Future Research***

The findings of this study may provide implications for future research. First, Mezirow's (1991, 2000, 2012) Transformative Learning theory proved to be useful as a hypothetical framework in identifying changes in faculty conceptions of teaching and course design which was the starting point of the data collection of this study. Even though faculty experiences were later found not to be transformative as suggested by Mezirow, the framework was a helpful instrument in identifying changes. Learning from these experiences is important because it can help researchers, and other stakeholders, to focus on the kinds of changes that happened and how they manifested in teaching and course design practices and also to generate significant sources of data for further investigation. Moreover, further analysis of the data may allow researchers to identify potential opportunities for faculty growth and changes that can inform the fields of blended learning professional development, faculty professional development, and adult education.

In addition, the findings of this study may also provide a starting point for future research as they might help raise questions for individual contexts with their own specificities. Starting with what was found in this study, future research could focus on specific issues pertinent to blended learning professional development initiatives to probe deeper into the nature and extent of changes in conceptions of teaching and course design and how they manifest in practice. For instance, an institution that struggles with classroom space management and availability could



focus on strategies to encourage faculty to reduce the number of hours of seat time in their courses, potentially increasing precious classroom space availability.

Besides, this study has also suggested that participation in blended learning professional development encouraged faculty to use more technology for the purpose of increasing student learning, providing more access, and increasing effectiveness, among others. Therefore, future research on the motivational aspect that comes with faculty participation in the program may generate insights into how to take advantage of this training opportunity to further motivate faculty to change their teaching and course design and sustain changes over time as part of the iterative course design process. In addition, the training opportunity can also take advantage of being in an environment that favors the promotion of changes among colleagues who are in the program with the same intent of improving their teaching and generate good peer pressure.

In addition, further research could prove extremely useful in following up with instructors in the long run with the intent to investigate how they have further changed their conceptions of teaching and course design and their practice. In other words, examining the long term effects of the blended learning program could serve as a powerful tool to make the case for such program offering and to secure funding. For instance, just a couple of semesters after one faculty member took the program, she and another colleague jointly created a new fully online course which generated revenue for the department that wasn't there – this was an unexpected consequence of participation in the program.

Moreover, future research with much greater reach in terms of the size of the samples could explore the correlation between certain attributes such as gender, department affiliation, years of experience, and disciplines, to name a few and aspects such as whether these groups have perceived changes, to what extent, the nature of these changes, and the obstacles they faced.

Finally, this study also illustrated cases in which faculty attempted to make student learning more relevant to the experiences they would find in the real world as they become professionals. Even though these faculty members reported that they hoped students were learning more and that their learning was more relevant, they were not able to provide evidence. With this in mind, further research could investigate differences in student learning outcomes that might result from the implementation of the new course redesigns. Such study could provide insights into how to implement blended learning to purposefully impact student learning. This approach might prove challenging since a major part of the blended learning program focuses on the course redesign aspect which involves a rethinking of learning objectives, activities, and assessment instruments, thus making it harder to evaluate student performance before and after the course redesign implementation.

Future research that has the ultimate goal of providing guidelines to improve the quality of blended learning faculty development programs should first try to identify cases, or faculty members, who have changed their conceptions of teaching and course design and acted on these changes. Then further investigation needs to be conducted into the nature and extent of those changes and how they manifest in actual teaching and course design.

### **Conclusions**

The findings of this study have shown that the changes faculty went through met Feldman's (2000) Practical Conceptual Change model conditions for undergoing conceptual change as opposed to Mezirow's Transformative Learning theory, the original hypothetical framework used in this research. Even though Mezirow's theory did not hold true after further investigation into the topic of faculty changes in conceptions of teaching and course design, it was still useful in identifying whether changes occurred. In fact, the ten phases of perspective

transformation outlined by Mezirow made it possible to objectively determine whether faculty have undergone a change through their experiences. In addition, by using this framework, it was possible to determine which phases of perspective transformation faculty have gone through.

In order to answer the larger question of what kinds of changes in conception of teaching and course design have actually manifested in faculty practice, subsequent in-depth, semi-structured interviews were conducted with select faculty members. Further analysis of the interviews with the faculty who scored high in the survey, meaning that they underwent change, revealed that the kinds of changes that they went through were not transformative in the sense of Mezirow's theory but rather were in alignment with Conceptual Change theory. In fact, the findings of this study met the four conditions proposed by Feldman's (2000) Practical Conceptual Change model for conceptual change to occur.

The analysis of survey and interview data in this study revealed the potential for blended learning instructional development to serve as catalyst for changes of faculty conceptions of teaching and course design. The survey data showed that the vast majority of faculty members in the program experienced changes in their conceptions. However, the survey also indicated that even though most participants perceived a change in their conceptions, they did not necessarily abandon their previous views or felt uncomfortable with traditional views of teaching and course design.

Further investigation into the issue of changes in conceptions of teaching and course design through interviews with six faculty members, three who scored low in the survey, meaning that they did not undergo changes or did so to a lesser extent, and three who scored high, meaning that they had undergone changes, revealed contrasting results between these two groups, regarding the following aspects. Those who scored low in the survey were already

familiar with and had ample experience using the content presented in the program. On the other hand, those who scored high in the survey were not familiar with the content or were not using it effectually. When it comes to the actual implementation of strategies that were presented in the program, the low scorers thought the program reinforced their practice even though the changes they made to their courses impacted primarily the learning activities. Conversely, the high scorers presented the greatest changes that included changes to learning objectives, learning activities, assessment, and a move toward more active student learning practices. Nonetheless, further investigation into the types of changes that the high scorers underwent revealed that the changes were not transformative in the sense of Mezirow's Transformative Learning theory. They were, however, in alignment with Feldman's (2000) Practical Conceptual Change model, which indicates that the high scorers interviewed went through a conceptual change.

It is worth pointing out that the changes reported by both groups emphasized making better use of class time and a transition to use more active student learning. Furthermore, both groups valued their participation in the program, highlighting the importance of having a space to discuss teaching and learning, share their views and experiences, voice their concerns, and learn from each other.

It is important that colleges and universities provide adequate training for instructors who have never been exposed to blended learning before they lead a course (McDonald, 2014). The blended learning professional development program gave faculty an opportunity to reflect on their teaching and to think about ways in which they could implement changes in their courses from the viewpoint presented in the program and it showed to have, for the most part, changed faculty conceptions of teaching and course design and those changes impacted in their practice. Therefore, colleges and universities, departments, and faculty development professionals should

consider how to encourage and incentivize faculty participation in such initiatives, how to design these initiatives based on faculty needs, and how to offer support for course design, development, and implementation. Faculty professional development initiatives impact on instructors' attitudes positively, resulting in an increased awareness of their teaching methods and student learning and a change in their conceptions that manifest in their practice in teaching and course design.

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## APPENDICES

### **Appendix A: Invitation to Participate in a Dissertation Study – Perspective Transformation Survey**

Greetings,

You are invited to participate in my dissertation study whose purpose is to identify and better understand changes in faculty conceptions of (or the ways they view) teaching and course design because you were a participant in the Blended Learning Program.

I would like to ask you to complete 1 questionnaire that should take you about 15 minutes to complete. The data collected in this survey will be used in two ways: 1) to report confidential aggregate data on the overall participants' perceptions of their conceptions of teaching and course design and 2) to identify potential individuals to participate in subsequent interviews.

Here's the link to the questionnaire, should you choose to participate in this dissertation study:

Depending on the overall survey responses, you may be invited to participate in subsequent interviews.

If you choose not to participate or to withdraw from the study at any time, it will have no effect on any services or treatment you are currently receiving.

However, your participation in this dissertation study will be greatly appreciated.

Thank you in advance for you time.

Kind regards,

Luiz Lopes

## **Appendix B: Invitation to Participate in a Dissertation Study - Interviews**

Greetings,

You are invited to participate in the second stage of my dissertation study because you were selected from the survey responses you submitted to the questionnaire about changes in perceptions of teaching and course design.

This stage of the study involves two interviews that will take place at agreed upon public locations or by phone, or online. The first interview will last about 60-75 minutes and the second interview, a follow up interview, will last about 30 minutes – the total time of your participation in these interviews will be less than 2 hours. The interview data will be used to compare and contrast faculty conceptions of teaching and course design.

If you choose to participate in this study, please let me know by responding to this email and I will follow up with you with a Consent Form for your review before an interview is conducted and any data are collected.

Your participation is completely voluntary. If you decide not to participate or to withdraw from the study it will have no effect on any services or treatment you are currently receiving.

However, your participation in this dissertation study will be greatly appreciated.

Thank you in advance for you time.

Kind regards,

Luiz Lopes

## Appendix C: Perspective Transformation Survey

Greetings,

I would like to thank you for participating in my dissertation study about conceptions of, or the way instructors view, teaching and course design, by responding to the following survey, which will take less than 15 minutes to complete. The survey results will be used in two ways: 1) to report confidential aggregate data on the overall participants' perceptions of their conceptions of teaching and course design and 2) to identify potential individuals to participate in subsequent interviews to compare and contrast their perceptions.

Your participation in this study is greatly appreciated.

Thank you!

### Demographic Questions

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Gender: Male \_\_\_\_\_ Female \_\_\_\_\_

Marital Status: Single      Married      Divorced      Widowed

Race: White, non-Hispanic      Black, non-Hispanic      Hispanic      Asian or Pacific Islander

Other: \_\_\_\_\_

School(s): \_\_\_\_\_

Department(s): \_\_\_\_\_

Education: Bachelor's degree      Master's degree      Doctorate      Other: \_\_\_\_\_

Age: \_\_\_\_\_

1) Thinking about your experiences in the Blended Learning program, please indicate the extent of your agreement or disagreement with each statement.

Statement	Strongly	Disagree	Neutral	Agree	Strongly

	Disagree				Agree
I had experiences that caused me to question the way I view teaching or course design					
I had experiences that caused me to question my ideas about my role as I teach and design courses					
As I questioned my ideas, I realized I no longer agree with my previous views about teaching or course design					
I felt uncomfortable with traditional expectations of teaching or course design					
I realized that other people also questioned their views about their teaching or course design					
I have considered teaching or designing courses in a different way from the usual ways I viewed them					

I have tried to figure out a way to adopt these new views of teaching or designing courses					
I have gathered information the information I needed to adopt these new views of teaching or designing courses					
I have tried out, or intend to try out, new views of teaching or designing courses based on what I learned in the program so that I would become more comfortable or confident in them					
I began to think about the reactions and feedback I may get from my new views of teaching or course design					
I took action, or intend to take action, to adopt these new views of teaching or course design					
I do not identify with any of the					

statements above					
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2) By taking the Blended Learning Program, do you believe you have experienced a time when you realized that the way you view your teaching or course design have changed?

a) Yes. \_\_\_\_\_ If yes, please go to question #3 and continue the survey

b) No. \_\_\_\_\_ If no, please go to question #6 to continue the survey

3) Please briefly describe what happened

4) Which of the following influenced a change in the way you view teaching or course design?

4.1) Was it a person who influenced a change in the way you view teaching or course design? If yes, who? Please check all that apply.

a) \_\_\_\_ Another Blended Learning participants' stance

c) \_\_\_\_ A Blended Learning facilitator's stance

d) \_\_\_\_ Another person's stance (who?)

e) \_\_\_\_ Other

4.2) Was it part of a class activity or assignment that influenced a change the way you view teaching or course design? If yes, which ones? Please check all that apply.

a) \_\_\_\_ Class or group projects

b) \_\_\_\_ In class discussions

c) \_\_\_\_ Discussion with a co-participant

d) \_\_\_\_ Discussion with a course facilitator

e) \_\_\_\_ Online discussion forums

f) \_\_\_\_ Non-traditional structure of a course

g) \_\_\_\_ Planning your course map



- h) \_\_\_\_ Completing course activities
- h) \_\_\_\_ Self reflection
- i) \_\_\_\_ Self evaluation
- j) \_\_\_\_ Assigned readings
- k) \_\_\_\_ Cases presented in course
- l) \_\_\_\_ Other class activity or assignment

4.3) Was it course content that influenced a change in the way you view teaching or course design? If yes, please indicate the extent to which the following topics have had an influence on the way you view teaching or course design.

Learning about the following topic has influenced my teaching or course design	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Different Models of Blended Learning					
Backward Design					
Course Objectives – creating strong course objectives and aligning course materials and learning activities with course objectives					
Unit Objectives – creating strong learning/unit objectives aligning course					

materials and learning activities with Learning/Unit Objectives and Course Objectives					
Course Structure as an Instructional System – with Inputs, Course Instruction, Outputs					
Course Content - course materials that you select					
Learning Activities – that you create that provide a balance in the type, level, and depth of learning					
Unit Organization– connecting pre-class, in-class, and post-class activities					
Absorb, Do, and Connect activities – identifying functional requirement and technologies for creating effective activities					
Evidences of Understanding – aligning assignments and assessment with					

Learning/Unit Objectives and Course Objectives					
Instructor Roles – considering the instructor role and creating strategies to help students in a blended environment					
Course Evaluation – creating an evaluation plan for your course to guide the iterative course design					

Are there any other course content that have had an influence on the way you view teaching or course design that was not listed here? Please list them here.

4.4) Was it a significant life event that influenced a change in the way you view teaching or course design?

- a) \_\_\_ Marriage
- b) \_\_\_ Birth/adoption of a child
- c) \_\_\_ Moving
- d) \_\_\_ Divorce/separation
- e) \_\_\_ Death of a loved one
- f) \_\_\_ Change of job
- g) \_\_\_ Loss of job
- h) \_\_\_ Retirement
- i) \_\_\_ Other: \_\_\_\_\_

5) Thinking back to when you first realized that the way you view teaching or course design had changed, what did your being in the Blended Learning Program have to do with the experience of change?

6) Would you characterize yourself as one who usually thinks back over previous decisions or past behavior?

Yes \_\_\_\_\_ No \_\_\_\_\_

6.1) Would you say that you frequently reflect upon the meaning of your studies for yourself personally?

Yes \_\_\_\_\_ No \_\_\_\_\_

7) Which of the following have you experienced while participating in the Blended Learning Program? Please check all that apply.

- a) \_\_\_ Marriage
- b) \_\_\_ Birth/adoption of a child
- c) \_\_\_ Moving
- d) \_\_\_ Divorce/separation
- e) \_\_\_ Death of a loved one
- f) \_\_\_ Change of job
- g) \_\_\_ Loss of job
- h) \_\_\_ Retirement
- i) \_\_\_ Other: \_\_\_\_\_

## Appendix D: Faculty Interview Questions

### 1. General Questions

Probe responses to each question that might require some clarification

- 1.1. What is your affiliation with this university?
- 1.2. How many years of teaching experience do you have?
- 1.3. How long have you been teaching at this university?
- 1.4. What is your tenure status? Tenured? On tenure track? Not on tenure track?
- 1.5. Could you describe in general lines what teaching is like in your discipline?
- 1.6. Do you have a teaching philosophy? What is it?
- 1.7. How did you hear about the Blended Learning Program?
- 1.8. Why did you decide to participate in the Blended Learning Program?

2. Questions about the course that will be or has been designed to implement blended learning?

*Interviewer says: "Let's start with some questions about the courses that you will or have designed or redesigned for blended learning. Please provide as much detail as you feel comfortable with in your answers."*

- 2.1. What course will you or have you designed to implement blended learning?
  - 2.1.1. Can you tell me a little about it? What level? Number of students?
- 2.2. How long have you been teaching this course?
- 2.3. Have you worked with any instructional designers to design your course? Who was it?

3. Questions about faculty changes in their course as a result of participating in the Blended Learning program.

*Interviewer says: “Now, let’s talk about changes in your course. Please provide as much detail as feel comfortable with in your answers.”*

3.1. Have you made any changes in your course as a result of your participation the Blended Learning Program?

3.1.1. What changes have you made?

3.1.2. What parts of your course have changed?

3.1.3. How much of your course has changed?

3.1.4. Have other areas of your course been impacted because of the new design?

3.2. Why did you decide to make those changes?

*Interviewer says: “Now, I will list a number of aspects that may relate to your course. Keeping those aspects in mind, I would like you to think about whether you made any changes regarding those aspects in your course.”*

3.2.1 Course Objectives

3.2.2 Unit Objectives

3.2.3 Course Structure

3.2.4 Course Content

3.2.5 Learning Activities

3.2.6 The way you Deliver Content

3.2.7 the way or modalities in which you Deliver Content

3.2.8 the modalities in which you interact with your students

3.2.9 the way your students interact with the course materials

3.2.10 the way you assess your students

### 3.2.11 the you evaluate your own course

4. Questions about faculty changes in their conceptions of teaching and course design as a result of participating in the Blended Learning program.

*Interviewer says: "In the previous set of questions, you mentioned that you made some changes in your course. Now I'd like to ask you what might have influenced a change in the way you view teaching and course design.*

4.1. Do you think you have changed the way you view teaching and course design as a result of your participation in the Blended Learning Program?

4.1.1. In which ways have you changed the way you view teaching?

4.1.2. In which ways have you changed your course design?

4.2. If not, would you tell me in what ways your views of teaching and course design align or don't align with those presented in the Blended Learning program?

*Interviewer says: "Now, I will list a number of aspects that may relate to your course that you may have worked on. I would you like you to tell me whether they have influenced changes in the way you view teaching and course design."*

*Has thinking about any of the following topics influenced changes in the way you view teaching and course design?*

*How?*

4.2.1 Different Models of Blended Learning

4.2.2 Backwards Design

4.2.3 Course Objectives, Unit Objectives and Course Structure

4.2.4 Course Content, Learning Activities, Unit Organization, and Absorb, Do, and Connect types of activities

4.2.5 Your Instructor Roles

4.2.6 the way or modalities in which you Deliver Content

4.2.7 the way you or modalities in which you interact with your students

4.2.8 the way you or modalities in which your students interact with course materials

4.2.9 Course Assessment

4.2.10 Your own Course Evaluation

4.2.11 Has the Pedagogical, Instructional Design and technology support influenced changes in the way you view teaching and course design? How?

4.2.12 Are there any other aspects that influenced changes in the way you view teaching and course design? How?

So just to recap: Do you think you have changed the way you view teaching and course design as a result of your participation in the Blended Learning Program?

4.3 How do you feel about the way you view teaching and course design now compared to before you participated in the Blended Learning Program?

4.4 Is there anything else you would like to share about how you view teaching and course design?

## 5. Questions about Recommendations

*Interviewer says: "Now, I will ask you some questions about what recommendations you would give"*

5.1. Thinking about the changes in the way you view your teaching and course design, what advice would you give faculty who you think could benefit from them?



- 5.2. What advice would you give the following stakeholders regarding changes in teaching and course design?
  - 5.2.1. What advice would you give departmental administration?
  - 5.2.2. What advice would you give the pedagogical and Instructional Design support team you worked with?
- 5.3. What other kinds of support or assistance would have made the design or redesign process to implement blended learning a more successful experience?
- 5.4. What recommendations would you make regarding the Blended Learning Program?
- 5.5. What were the most valuable lessons you learned in this process?
- 5.6. What other recommendations would you like to give?
- 5.7. Is there anything else you would like to share about other related topics?

Thank you for your participation. I will transcribe this interview and provide you with a summary for your clarification and/or further input.