Results by Gender.

Of the participants, 17 were female and 4 were male. Previous studies have suggested that perceptions and adoption of innovations differ by gender (Venkatesh et al, 2000). The data collected in this study was therefore segregated by gender in order to determine if the perceptions were moderated by sex differences in any way.

One major similarity across genders is that when asked about their perceptions, they all offered definitions rather than their opinions. Therefore in their word frequency clouds, online, face-to –face are the most frequently used terms.

The men had a greater tendency to perceive blended teaching in a task oriented manner. They focused on the technical terms (*asynchronous, modalities* etc.) and tools and the way in which that would affect their teaching process. They mentioned the names of the technological tools in use such as the LMS system. They also referred to the changes that blended teaching would effect on the ‘*package’* or the ‘*enterprise’* of delivering education. Only one male lecturer mentioned any type of online interaction with the students. And in their word cloud, words such as *activities* and *use* predominate.

In contrast, the women focussed more on student engagement and the way that blended teaching would affect their interaction with their students. They referred to student engagement as a blend of experiences, both online and face to face. Online environments were seen as a way to ‘*liaise’* with students. One female subject even noted that whether the students enjoyed the blended model or had the necessary equipment was a factor in her perception of blended teaching. Therefore in their word cloud, *students* was the most popular word after the definition words.

Results by Age.

There were 7 subjects below 50 and 14 above.

Of the references to change found in our study, all were made by those in the age cohorts 40 and above. This means that the age group under forty, did not see blended teaching as a change in paradigm, but rather as par for the course. They were more likely to see blended teaching in terms of its benefits, in fact it was their most frequent reference. The older teachers (40 and above) tended to focus on blended teaching as a teaching method and an innovation. For the age groups, 50 to 70, teaching method and change were referenced equally. Their least frequent reference was to the benefits of the method. The intervening cohort (40-49)’s most frequent reference was to the change and teaching methods aspect similar to the pattern of the older groups. Interestingly however, this group made the least references to benefits, in fact only mentioning it only once.

Results by Education Level.

Participants were separated by level of educational attainment ranging from Masters to Professorship. Results were similar across educational levels, with all subjects perceiving blended teaching most frequently in terms of a teaching method and in terms of change. For all groups, benefits of blended teaching were cited least often. In fact not even being mentioned at all by the single professor.

Results by length of adoption time.

In his seminal work on the process of innovation adoption, Rogers (1995) described early adopters as those who adopt a product early in its lifecycle while late adopters buy in at the tail end. In this study, early adopters are defined as lecturers that began blended teaching before Semester 2, 2012, while the late adopters began blended teaching after Semester 2, 2012 (Appendix IV). Assumed elements are not perception categories per se but rather underlying assumptions that would moderate perceptions.

A greater number of the early adopters expressed perceptions of blended teaching as a methodology or change. The late adopters also expressed perceptions in terms of methodology and change, but more of the late adopters expressed their perceptions as benefits and in terms of the teaching environment.

Results by numbers of years lecturing

The subjects of this study are experienced instructors of a School of Education with a significant history in the educational industry.

Those subjects with less than 5 years of lecturing experience reported change and teaching methods as their chief references. There was also a significant focus on the benefits of blended teaching. Strikingly, those instructors with less than two years of service perceived blended teaching solely in terms of the teaching environment, never mentioning any of the other reference categories.

Those lecturers with a greater number of years under their belt, displayed a greater focus on teaching method. In fact, those at the upper end of the teaching range never mentioned benefits at all. They saw blended teaching in terms of methods, change and teaching environment.

The lecturers in the middle of the spectrum, were also clustered around a narrow range of categories. The most common reference for this group was teaching method and in a close second changes and benefits. Teaching environment was referenced least often.

RQ3: How have full time academic staff experienced blended teaching?

For the purposes of this study, perceptions are conceptualised as being the ideas, beliefs and opinions that make up a person’s outlook toward the innovation of blended teaching. On the other hand, experience is defined as what happens to one and how one reacts. More specifically how participating in the blended teaching environment was lived through.

To gain a deeper understanding of the various ways in which these 21 individuals experienced this innovation, this section is subdivided into concerns, challenges and successes. These subcategories were generated from a text search query in NVivo 10.

### Blended Teaching Concerns of the full-time lecturers

These concerns are conceptualised to mean any apprehensions or worries that the subjects may have had before as well as during the adoption process. The long list of concerns were then further subdivided into 3 categories: - 1) Institutional concerns 2) Individual concerns and 3) Implementation concerns.

#### Institutional concerns

These were areas of weakness of the faculty and the institution that caused apprehension for the full-time lecturers; topics that they believed would frustrate the adoption process. These concerns included intriguingly doubt in their colleague’s competence. Some lecturers feared that their peers didn’t understand blended teaching and that this would have a negative impact. However, the majority of these concerns dealt with institutional weaknesses. They mentioned that support systems weren’t in place and the adoption process was progressing too slowly. A certain lecturer wondered whether the School of Education was truly committed to the process. He asked if they were truly walking the talk. A number of lecturers also worried that if the School of Education didn’t meet its implementation deadlines then the institution and by extension the lecturers would lose their strategic position.

#### Individual Concerns

These were difficulties that the lecturers foresaw for themselves; weak spots that would hinder the hybridisation process. The introduction of an innovative teaching method like blended teaching can bring with it a lot of trepidation. To fully benefit from the change, the process might necessitate the adoption of strategies and modalities outside of one’s comfort zone. Some lecturers preferred to teach what they were comfortable with and wondered if this would hamper the process. The initialization of the process, led them to the understanding that too much was left to the individual, and to account for this a greater effort was needed personally due to the lack of institutional support.

#### Implementation Concerns

These concerns were more procedural in nature. They dealt with the fine grained details of transforming the theory of the School of Educations blended policy into reality. Uncertainty was a major cause of concern for the full-time lecturers. For early and late adopters alike, they wondered whether they understood fully how students learned in the online environments and how best to tailor it to their specific learning needs. They were also doubtful as to the best practices for segregating their content. They were unsure as to what was meant for online and what topics would be better suited to a face to face situation. Similarly, some instructors were not sure when to schedule the face to face meetings with their students.

### Blended teaching Challenges of full-time lecturers

When asked about their challenges, the full time lecturer’s responses were wide ranging and varied. They ranged from personal to institutional hindrances in the adoption process. Although diverse, their challenges fell under two headings: time and technology/technical challenges with one exception. Both headings subsumed a similar number of topics and the exception will be treated separately.

#### Time challenges

With the hybridisation process inherent to adopting to blended learning as the dominant teaching model, courses once taught in the traditional face to face manner must now be converted to a blended model. This comes with a time cost. The lecturers mentioned the increased amount of time that now had to be allocated to the class preparation process. They also described the experience of teaching online as being time consuming. This increased pre-class time as well as increased time in the online environment led to another tricky situation. The typical full-time lecturer schedule had to be restructured to accommodate the increasing demands on their time. And the lectures report that unfortunately, it is taking a long time to address these challenges effectively.

#### Technology Challenges

As the technology component of the blended teaching model was introduced to the School of Education, the lecturers mentioned that a significant number of challenges were associated with it. In the interviews, the lecturers mentioned that there was a lack of the necessary technical skills among the faculty and that they lacked online learning teaching tools that would best reach their students. A typical complaint was that the technology malfunctioned.

The one generated challenge that didn’t fit in one of the above two categories dealt with the ability to handle the large influx of new students. With the ability to enrol more students than can be held synchronously, there has been a significant increase in class numbers. This was overwhelming for the lecturers.

All of the data up to this point has been ventilated through the lens of gender and timing of adoption. When the blended teaching challenges of full-time lecturers were disaggregated by gender, some intriguing patterns emerged. Both genders listed the increase of time dedicated to teaching

### Blended Teaching Successes of Full-time Lecturers

Despite the slew of concerns and challenges, the instructors also experienced some successes. The blended teaching innovation was beneficial to both teacher and student.

The benefits to the teachers were both professional and personal. On a professional basis, the lecturers enjoyed a greater flexibility of time and space because of the synchronous nature of blended teaching. There were also opportunities for professional development. Additionally this greater flexibility allowed the teachers a greater access to students which resulted in a greater degree of collaboration between the teacher and the student. The lecturers were actually the ones learning from this arrangement.

On a personal note, the lecturers reported that both their technological and thinking skills improved by having to interface with the blended teaching model.

But the successes were not only enjoyed by the lecturers, but also by the students. The instructors reported seeing gains in their students’ performances.

## Interesting Discoveries

### Mobile characteristics of blended teaching.

By their own admission, gathered from the interviews, four lecturers which was approximately 20 % of the full time staff engaged with the new blended model through mobile devices. These lecturers recounted that they adopted the use of the mobile devices to more quickly communicate with and respond to the needs of their students. Because devices like tablets and smart phones are ubiquitous and always on their owners, this speeds up the responses to queries. They ‘can access anything…anytime...online’. This creates a more immediate relationship and good rapport. One lecturer is quoted as saying “My world cannot exist without the e-technology. I have to be using the e-technology all the time.” These mobile devices allowed the professors to always be there for their students. “Because of the flexibility of it, I can teach anywhere.”

## SUMMARY OF RESULTS

We discovered that for Research Question One “How do full time lecturers perceive blended teaching?” perceptions could be considered in nine categories- benefits, changes, teaching method, teaching environment, modes of delivery, strategies, technologies used, times spent in the environment, times spent in the environment and types of blends. These categories were then reduced to three overarching themes, Techniques, Terrain and Transformation.

(2) How do perceptions of blended teaching differ based on gender, age-range, education level, length of blended teaching adoption and teaching experience? From our cross comparisons, we found that female lecturers’ perceptions were more student focused while male lecturers’ perceptions were more task oriented. The youngest group of professors was more likely to see blended teaching in terms of its benefits, while the older teachers focused on the change aspects.

Across education levels, the findings were consistent. However the lone professor did not perceive blended learning in terms of its benefits, only using the other categories. When considering early vs. late adopters, both groups perceived blended teaching through the lens of methodology and environment. However the late adopters saw it more in terms of benefits than the early adopters. Teaching experience was correlated with perception in interesting ways. The veteran instructors perceived blended teaching solely in terms of teaching methods and environment, never mentioning benefits. The less experienced teachers saw it solely in terms of the teaching environment. The middle cluster of instructors were similarly clustered, mentioning only teaching method and mentioning teaching environment least often.

(3) How have full-time academic staff experienced teaching?

From our analysis, it was seen that there were a variety of positive and negative experiences among the full time lecturers. To more clearly present this wide range, we clustered the responses into three groups, concerns challenges and successes. In the concerns group, lecturers wondered if they, their peers or the institution were ready for this significant change. They were also unclear as to the specific procedures necessary in order to effect the recommended blend of online and face-to face.

The challenges could similarly be divided into two sub-categories; time and technology. With such a significant integration of technology, there resulted a wide variety of technological challenges that included malfunctions and lack of access to appropriate tools. A substantial time cost was also incurred. As the adoption process moved into implementation, the full-time lecturers found themselves having to spend more hours in pre-class preparation and untangling technical snafus, and this necessitated a restructuring of their work schedule.

Despite the concerns and challenges, there were however successes for both instructors and students. Increased flexibility and access to students resulted in greater collaboration between teacher and student. The full-time lecturers reported that their aptitude with technology as well as their thinking skills improved.

An interesting discovery

In order to effect the switch to blended teaching, online technology tools were provided to the fulltime lecturers. These included learning management systems. In an intriguing turn of events however, approximately 20 % of the full time teaching staff created their own blend of technologies by integrating mobile technology. In order to capture the full flexibility of the blended teaching innovation, they used mobile devices such as tablets and smartphones to keep in constant contact with their students.

All of the data up to this point has been ventilated through the lens of gender and timing of adoption. When the blended teaching challenges of full-time lecturers were disaggregated by gender, some intriguing patterns emerged. Both genders listed the increase of time dedicated to teaching

### Blended teaching challenges compared by gender

Table

Lecturers challenges compared by gender

|  |  |
| --- | --- |
| Male | Female |
|  | * Inability to respond to the increased number of students |
| * Increased time teaching online | * Increased time teaching online |
|  | * Greater effort needed |
|  | * Malfunctioning technologies, wastes time |
|  | * Increased time and effort to overcome challenges |
|  | * Inadequate skills |
|  | * Must keep abreast of the technologies |
| * Re-do work schedules |
| * Increased preparation time (twice as much) |