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Investigating modes of subject delivery in Teacher Education: A review of modes of delivery at the School of Education and Professional Studies Gold Coast Campus Griffith University

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Abstract:

Flexible learning initiatives are a major objective of Griffith University's Strategic Plan. Moreover, academics are encouraged to implement a range of modes of delivery, including various modes of intensive delivery. This research, following a conceptualisation of a variety of forms of delivery which included traditional formats, intensive modes of delivery and web-delivery of subjects, identified a diverse range of perspectives, tensions and important considerations perceived by students and academic staff about those modes of delivery. Key issues reported were that design is critical, some subjects were more suitable for intensive modes of delivery than others, the duration of the program could be condensed, concerns about and benefits of intensive delivery

were articulated, students questioning the 'value for money' of some subjects, and the perceived benefits for students of on-campus studies. Based upon the findings, the review presented recommendations for informing the strategic planning and delivery of subjects.

Introduction

As demand for access to tertiary education continues to be strong, University study is no longer viewed as the domain of the recent school leaver and the concept of the range of modes of delivery of courses has also changed markedly. For example, with the emergence of virtual universities, cyber campuses as well as the traditional distance and external studies, some students never actually attend the physical campus that was traditionally viewed as the university. Accompanying these changes are concerns over issues such as quality control and equity highlighted in the following statements:

> *"Due to work and other commitments I cannot come to University everyday so Intensive format is not an option for me. Also I would rather come to uni and have lectures and tutorials rather than work at home using the Internet.*
>
> *I believe you need to interact with other people as well as your lecturers to get a feel of the subjects you are doing."*
>
> (1st Year B. Ed. Student, School of Education and Professional Studies)
>
> *"The design is critical. Quality in terms of subject design for effectively developing positive relationships, content, deep learning, relevance to needs and interests of students, teaching strategies, use of facilities, and assessment strategies requires careful planning as well as opportunities for some negotiation with students."*
>
> (Academic, School of Education and Professional Studies)
>
> *"I have little or no faith in curriculum subjects taught in Intensive mode. There may well be some subjects suitable but lack of opportunity for reflection/debate/links with Professional Studies/ cumulative assessment/etc would dramatically decrease effectiveness of Curriculum Studies. (and have difficulty modelling teaching and learning in schools)."*
>
> (Academic, School of Education and Professional Studies)

The comments presented flag the range of perspectives, the tensions and the important considerations perceived by some students and academic staff about various modes of subject design and delivery. While traditional

course formats still predominate in Universities, there are identifiable variations which are described in this review as intensive modes of delivery (IMD) approaches to subject timetabling. These variations seem to have emerged due to demands related to University and student needs, preferences and constraints. For example, to maintain and enhance student enrolments, Universities attract increasing numbers of mature-age and part-time students as well as full-time students who are engaged in work concurrently with their studies. In addition, we live in a period of dramatic technological change which holds implications for changes in the modes of subject delivery.

This paper provides a summary of the findings of a review undertaken during 2000. The purpose of that review was to report information and advice about those various modes of delivery offered by the School of Education and Professional Studies (EPS) at the Gold Coast Campus of Griffith University by identifying

- Background information about students to inform considerations for IMD
- Student ability to participate in various forms of subject delivery
- Student preferences for various modes of subject delivery
- Student and EPS Staff perceptions of comparisons between intensive formats and traditional semester length formats in terms of the learning environment, learning outcomes and attitudes toward IMD
- EPS Staff perceptions of preferred modes of delivery for specific subjects

A Conceptualisation of Modes of Delivery

IMD was defined in this review as a concentrated organisation of study which differs from the traditional semester long organisation. Consequently, a variety of forms of IMD were conceptualised as shown in Table 1 below:

Table 1: Conceptualisation of Intensive Modes of Delivery

Traditional Format
Semester long delivery; e.g. lectures and/or tutorials conducted weekly for the duration of a semester
Intensive Formats (IMD)
- Week long intensive mode; e.g. 5 consecutive days from 8.30 a.m. until 4.30 p.m.   - Two-three weeks of delivery; e.g. 5-10 hrs per week for 2-3 weeks.

- A series of weekends; e.g. Weekends of Teaching Weeks 3, 6, and 9.

- A weekend and a series of evenings; e.g. Weekend of Teaching Week 6 and Monday, Tuesday and Wednesday evenings.

Web-based and Web-supported Delivery

- Web-based with little or no on-campus attendance required by students; e.g. where the subject is dependent on the content and activities on the website, little or no face-to-face contact with lecturers and tutors.

- Web supported with some on-campus attendance required by students; e.g. resources made available to students to be accessed off-campus according to student choice of time and venue.

The Context: Flexible Learning at Griffith University

Flexible learning initiatives are a major objective of Griffith University's Strategic Plan, as highlighted by Lovegrove, the Deputy Vice-Chancellor, in a memorandum to all Heads of Schools in which he links flexible learning to providing approaches which focuses on student-centred learning:

> "Flexible learning is an extension of the University's commitment to, and history of, student-focussed learning and the University supports a systematic approach to flexible learning within all courses and subjects." (Lovegrove, 12 January, 2000)

Subsequently, Lovegrove (12 January, 2000) suggests that while there is no simple definition of flexible learning, flexible learning at Griffith University "aims to provide greater flexibility in the delivery, time, mode and location of course provision and in individually tailored student learning programs". To support this movement, Griffith University has established Griffith Flexible Learning Services (GFLS) and ongoing leadership and support is provided by the Griffith Institute for Higher Education (GIHE). Indicative of the collaborative work undertaken by GFLS and GIHE is the commencement in 2000 of the Graduate Certificate in Flexible Learning which is co-convened by GIHE and GFLS. The Graduate Certificate in Flexible Learning course objectives encourages practitioners to

> "develop and apply their knowledge of learning, teaching, and curriculum design in their discipline, the use of communication and information technologies and media, and the use of other flexible learning strategies and processes, to design, implement and evaluate flexible learning in their subjects and courses." (Conrad, L. and Crock, M., 6 October 1999).

Review Approach

This review of IMD sought data from staff and students from the School of Education and Professional Studies (EPS) at the Gold Coast campus of Griffith University.

In this review, four approaches were used:

- An analysis of the literature relating to Intensive Modes of Delivery (IMD)
- An analysis of historical data, including

  - Summer, Winter and Spring School subjects

  - Data obtained at the end of 1999 and 2000 from students enrolled in 1st, 2nd and 3rd year B. Ed. (Primary) subjects

- Surveys were administered with

  - students enrolled in 1st, 2nd, 3rd and 4th year B. Ed. (Primary) subjects,

  - students enrolled in B. Ed. (Primary) Graduate Entry
  - EPS academic staff

- EPS Staff were also given the opportunity to request an interview with the reviewers

Analysis of the Literature

An analysis of the literature relating to IMD was undertaken to identify key issues and implications emerging from previous studies elsewhere. This analysis also sought to guide the design of the surveys for students and staff. From the review of the literature, potential advantages and disadvantages of various forms of delivery have been summarized in Table 2 below in terms of attitudinal changes and in Table 3 in terms of performance, planning, and subjective factors. Studies by Dempster (1993), Scott (1994), McGorry and McGorry (1998) highlighted substantial potential advantages for intensive modes of delivery.

Table 2: Advantages and Disadvantages of Intensive Modes of Delivery - Attitudinal

Advantages	Disadvantages	Source
Attitudinal…		

• Students get to concentrate on one course at a time. • Less of a distraction in terms of changing classes and concentration in subject areas. • Attendance was up, discipline problems were down. • Teachers would have to vary methods and plan activities that would engage students. • They are not bored because the new schedule has forced the teachers to become more creative in the classroom. • Believed teachers conducted more activities in class with this type of schedule. • The opportunity to know their teachers better. • Liked having a team of teachers working with them. • Believed that they have less homework with this modified schedule.	• Often cited period length as a disadvantage.	McGorry, E. and McGorry, S.Y. (1998).
• Students reported they were able to concentrate exclusively on a small number of classes and could plan their schedules better. • Instructors' expectations were relaxed. • Intensive classes required more mental investment and commitment. • Literature suggests that intensive courses produce qualitatively different student learning experiences than semester length classes, and under certain circumstances these experiences seemed to yield more powerful and meaningful learning experiences. • Classroom relationships were closer.	• Boredom and monotony. • Information overload. • Greater amounts of pressure and stress.	Scott, P. (1994).
• Exposing students to less material but in more depth would lead to greater learning.		Dempster, F. (1993). McGorry, E. and McGorry, S.Y. (1998).

Table 3: Advantages and Disadvantages of Intensive Modes of Delivery

– Performance, Planning and Subjective Factors

Advantages	Disadvantages	Source
Performance…		
• The graduation rate increased from 73 percent to 90 percent of twelfth graders; the failure rate dropped dramatically; and scholarship awards increased. Students' grades are improving; more students are on the honour roll; and fewer are failing. • More time to practice the skills that were introduced in the lesson. • It gave them more time to do work in the classroom.	• It may threaten continuity of learning and retention of information.	McGorry, E. and McGorry, S.Y. (1998).
• Students' academic performances improved. • Intensive courses yield equivalent and sometimes superior learning outcomes in comparison to semester length courses regardless of the type of format. • Longer class sessions fostered more in-depth discussions. • Decrease in superfluous material. • Less procrastination		Scott, P. (1994).
Planning…		
	• It may intensify problems associated with student mobility. • It may reduce time for team teaching and team planning.	McGorry, E. and McGorry, S.Y. (1998).
Subjective Factors…		
• Some classes benefited more than others from intensive scheduling, most frequently citing mathematics. • Inservice days that were used for intensive scheduling training and transition.	• Some classes benefited more than others from intensive scheduling, most frequently citing mathematics. • Inservice days that were used for intensive scheduling training and transition.	McGorry, E. and McGorry, S.Y. (1998).

● Students believe that if most or all of the high-quality attributes are present, intensive courses are more powerful learning experiences.	● Students believe that if most or all of the high-quality attributes are present, intensive courses are more powerful learning experiences.	Scott, P. (1994).

Table 4 below provides a summary of intensive course studies by format from a review by Scott and Conrad (1991). The outcomes reported by the various authors reveal mixed outcomes in terms of some findings in favour of intensive modes, one finding in favour of traditional formats and most studies which reported no significant differences in outcomes. Interestingly, all case studies favoured intensive formats.

Table 4: Intensive Course Studies by Type of Format

(Adapted from Scott and Conrad, 1991, p. 75)

Study	Type of Format	Outcome*			
		NS	+I	+T	CS
Summer					
Austin et al, 1988	1 week, 2 ½ weeknd: 5 weeknd: and 5-week classes	X			
Bester, 1965	6 week and 16 week classes	X			
Boddy, 1985	5, 8 and 16 week classes	X	X		
Deveny and Bookout, 1976	8 week class				X
Eller, 1983	8 week class				X
Gleason, 1986	3, 5 and 15 week classes	X	X		
Keilstrup, 1981	6 week class				X
Masat, 1982	3, 6 and semester length classes	X			
Troiani, 1986	10 day class				X

		NS	+I	+T	CS
Modular					
Kuhns, 1974	Modular and semester classes		X		
Haney, 1985	Modular and semester classes	X			
Regular Term					
Richey et al, 1965	13 day and 17 week classes	X	X	X	
Frank, 1973	One semester class				X
Brackenbury, 1978	7, 8, 15 and 4 weekend classes	X			
Kirby-Smith, 1987	Intensive and 15 week classes	X			
Weekend					
Brackenbury, 1978	7, 8, 15 and 4 weekend classes	X			
Shapiro, 1988	2, 3, and 9 week and 4 weekend classes	X			
Austin et al, 1988	1 week, 5 week, 2 ½ weekend and 5 weekend classes	X			

*NS = nonsignificant differences in outcomes

+ I = findings in favour of intensive formats

+ T = findings in favour of traditional formats

CS = case study – all case studies favoured intensive formats

Review Findings

Background Information of Students

Gender

There is a substantially greater proportion of female students than male students in the Teacher Education programs offered by the School of Education and Professional Studies with 82.5% of respondents being female.

Internet Access at Present Accommodation

The number of students that have access to the Internet at their present accommodation was reasonably consistent across groups surveyed ranging from 69.5% of second year students to 80% of third year students. All postgraduate students studied reported that they had Internet access. Whilst these figures reflect high levels of Internet access by students, the implication here is that if a subject was to be delivered totally by web-delivery, approximately one in every four students would not be able to access the subject materials off-campus at their present accommodation.

Part-time Work

The majority of students (76.8%) surveyed reported that they are involved in part-time work while they are studying. Economic and personal responsibilities require many students to earn income through part-time work.

Distance to Travel to the Gold Coast Campus

The majority of students (93%) in all programs surveyed tend to live within a 50 km radius of the Gold Coast campus and 75.8% of students live within 30 km of the campus. These findings suggest that the student population undertaking these EPS programs are located within reasonably close proximity of the campus enabling a Gold Coast on-campus focus for provision of the study program.

Students' Ability to Participate in Various Modes of Delivery

Very high percentages of students indicated that they could participate in the traditional, semester long format (95.9%) and two-three weeks of delivery (94.3%) whereby they would be required to attend 5-10 hrs per week for a subject. In contrast, almost half of the students indicated that they were unable to participate in subjects delivered either over a series of weekends (41.4%) or over a weekend and a series of evenings (45.9%). As some core Bachelor of Education subjects are currently delivered over weekends, this raises serious issues relating to equity and access. Given the high proportion of students committed to part-time work, it would appear that students undertake their part-time work on weekends. In addition, it might be that students have a range of other legitimate personal, family, sporting and religious commitments on weekends. 73 % of all students felt able to participate in a subject that was dependent on the content and activities being web-based, with little or no face-to-face contact with lecturers and tutors.

Preferred Modes of Delivery

The most preferred mode of delivery by students was the traditional, semester length format and the least preferred was the weekend and series of evenings option as shown in Table 5. The graduate entry students differed from the other groups by most strongly preferring the week long intensive mode over other formats. Weekend delivery also did not rate highly, which together with low levels of preference by students for the weekend and series of evenings, and the findings reported relating to substantial numbers of students indicating that they were unable to participate in these forms of delivery, subject convenors and overall course planning needs to address the implications this holds for subjects that require weekend attendance.

Table 5: Students' Ability to Participate in Various Modes of Delivery

Mode of Delivery	% Able to participate	% Unable to participate
Traditional Format		
• Semester long delivery; e.g. lectures and/or tutorials conducted weekly for the duration of a semester	95.9	4.1
Intensive Formats		
• Week long intensive mode; e.g. 5 consecutive days from 8.30 a.m. until 4.30 p.m.	75.8	24.2
• Two-three weeks of delivery; e.g. 5-10 hrs per week for 2-3 weeks.	94.3	5.7
• A series of weekends; e.g. Weekends of Teaching Weeks 3, 6, and 9.	58.6	41.4
• A weekend and a series of evenings; e.g. Weekend of Teaching Week 6 and Monday, Tuesday and Wednesday evenings.	54.1	45.9
Web-based and Web-supported Delivery		
• Web-based with little or no on-campus attendance required by students; e.g. where the subject is dependent on the content and activities on the website, little or no face-to-face contact with lecturers and tutors.	73.6	26.4
• Web supported with some on-campus attendance required by students; e.g. resources made available to students to be accessed off-campus according to student choice of time and venue.	85	15

Preferred Modes of Delivery

Students were asked to indicate the extent to which they prefer studying in each of the various modes of delivery. As displayed in Table 6, the most preferred overall was the traditional, semester length format and the least preferred was the weekend and series of evenings option. The graduate entry students differed from the other groups by most strongly preferring the week long intensive mode over other formats. Weekend delivery also did not rate highly, which together for the weekend and series of evenings and the findings reported earlier relating to substantial numbers of students indicating that they were unable to participate in these forms of delivery, subject convenors and overall course planning needs to address the implications this holds for subjects that require weekend attendance.

Table 6: Student Preferences for Various Modes of Delivery

Mode of Delivery	1st Year	2nd Year	3rd Year	4th Year	Grad Entry	Cert Prog	Overall Mean	S.D.
Traditional Format								
Semester length	**3.71**	**3.71**	**3.51**	**3.82**	3.5	**4.83**	**3.67**	1.00
Intensive Formats								
Week long	3.09	2.90	3.00	2.97	**4.25**	2.42	**2.99**	1.41
2-3 weeks	3.51	3.50	3.49	3.41	3.00	3.42	**3.48**	1.08
Weekends	**1.75**	2.67	2.60	**1.88**	**1.25**	2.08	**2.21**	1.33
W/ends & evenings	**1.79**	**2.12**	**2.00**	2.06	**1.50**	2.17	**1.96**	1.15
Web-based and Web-supported Delivery								
Web-based with little or no on-campus attendance	2.66	2.80	2.83	2.68	3.00	2.73	**2.75**	1.40
Web-supported with some on-campus attendance	3.44	3.37	3.32	2.91	3.75	3.36	**3.33**	1.32

Scale: (1…5, with 1 = Very little extent and 5 = Very great extent)

Highlighted Means: Most preferred overall Least preferred overall

The Learning Environment

A set of questions asked academic staff and students to indicate the extent to which they agreed with statements that related to the learning environment. The results are displayed in Table 7 in order of staff and students' levels of agreement with the statements. Both staff and students agreed that there are significant differences in the learning environments of intensive and traditional formats. Studies elsewhere by Allen et al (1982), Kirby-Smith (1987), Adelman and Reuben (1984) suggests that course requirements are often different between the two formats. The findings here suggest that staff and students perceive that more discussion is promoted in intensive formats, and that students suggest that more 'time on task' by students occurs in intensive formats. This result reflected a tendency for staff to be in less agreement than students with this statement. Perhaps the different perception is something that staff may not be aware of and this could be useful when considering IMD.

Of particular note, there was a high degree of polarity on these items between academic staff with differing agreement evident. For example, some staff qualified their position by indicating that the effectiveness of intensive delivery depended upon who the lecturer was and how it was designed. To further illuminate this, a case study of a subject effectively delivered in intensive mode is presented later in this review. Further conversations and investigations are required by EPS staff to consider how pedagogical approaches compare between intensive and traditional formats. For example, Scott and Conrad (1991, p.58) refer to Allen's et al. (1982) finding that in intensive formats, lecturers were less likely to 'lecture' and more likely to promote group discussions which, when compared to lectures, promotes greater long-term retention, transfer of knowledge to new situations, problem solving, attitude change, and motivation for further learning (McKeachie, Pintrich, Lin, and Smith, 1987, p.70). Interestingly, in this study, students perceived more strongly than staff that more whole group lecturing occurs in intensive formats.

Table 7: The Learning Environment of Various Modes of Delivery

Statement	Staff		Students	
	Mean	Standard Deviation	Mean	Standard Deviation
There are significant differences in the learning environments of intensive and traditional formats.	**4.5**	0.53	**3.92**	0.91
More student discussion is promoted in intensive formats than in traditional formats.	**3.12**	1.64	**3.24**	1.12

Students are required to undertake less study in the form of research in intensive formats than in traditional formats.	**2.87**	1.64	**3.06**	1.07
There is more 'time on task' by students in intensive formats than in traditional formats.	**2.87**	1.46	**3.56**	1.03
More whole group lecturing occurs in intensive formats than in traditional formats.	**2.43**	1.27	**3.37**	1.03

Scale: (1…5, with 1 = Very little extent and 5 = Very great extent)

Learning Outcomes

A set of questions asked academic staff and students to indicate the extent to which they agreed with statements that related to learning outcomes. As displayed in Table 8, both staff and students most strongly agreed that the design of the subject delivery in intensive formats is an important factor in achieving quality learning outcomes, and they strongly agreed that, in intensive formats, students are able to apply theory to practice through discussions, workshops and activities in intensive formats. The implication here is that, in order to achieve quality learning outcomes, the design of the subject should provide opportunities for students to link theory and practice. This is also well illustrated in the case study presented later in this report. Moreover, the design needs to consider the establishment of a learning environment which enables a range of strategies such as discussions, workshops and discussions.

Table 8 : Learning Outcomes and Various Modes of Delivery

Statement	Staff		Students	
	Mean	Standard Deviation	Mean	Standard Deviation
The design of subject delivery in intensive formats is an important factor in achieving quality learning outcomes.	**4.57**	0.53	**3.88**	1.04
Students are able to apply theory to practice through discussions, workshops, and activities in intensive formats.	**4.0**	1.15	**3.50**	0.94
Lecturer expectations of students differ between intensive and traditional formats.	**3.71**	0.49	**3.08**	1.07
Students can effectively 'learn how to learn' in time compressed formats.	**3.29**	1.11	**3.06**	1.06

Intensive courses can produce superior learning outcomes to traditional semester length courses.	**3.17**	1.33	**2.94**	1.13
Time is the principal driving force for achieving quality learning outcomes.	**3.12**	1.09	**2.71**	0.76
Subject requirements of students differ between intensive and traditional formats.	**3.0**	0.82	**3.26**	1.04

Scale: (1…5, with 1 = Very little extent and 5 = Very great extent)

An additional question which emerges here is – to achieve quality learning outcomes, are some subjects better suited to intensive formats than traditional formats? Staff were asked to list the subjects which they convene and/or teach and indicate the extent to which they believe that they can be effectively implemented to produce quality learning outcomes in each of the modes of delivery. The information provided was collated and organised and is presented in Table 9. From the staff perceptions, some academic staff strongly suggest that for some subjects, certain modes of delivery produce better learning outcomes than other forms of delivery.

Table 9: Subjects – Staff Perceptions of Preferred Form of Delivery

Modes of Delivery	Trad. Format	Intensive Formats				Web Delivery	
Subjects	Sem. Length	Week Long	2-3 weeks	Series of weekends	Weekends and evenings	Web-based with no on -campus	Web-supported with some on- campus
Preferred Mode of Delivery - Traditional Format							
Maths Education 1	5	-	-	-	-	-	-
Maths Education 2	5	-	-	-	-	-	-
Maths Education 3	3	-	-	-	-	-	-
Numeracy Intervention	2	-	-	-	-	-	-
Primary Science Ed. 1	5	2	3	3	3	1	2
Primary Science Ed. 2	5	2	3	3	3	1	2
Senior Sec. Science Ed. 1	5	2	3	3	3	1	2
Senior Sec. Science Ed. 2	5	2	3	3	3	1	2

Biology Curriculum 1A	5	2	3	3	3	1	2
Biology Curriculum 1B	5	2	3	3	3	1	2
Chemistry Curriculum 1A	5	2	3	3	3	1	2
Chemistry Curriculum 1B	5	2	3	3	3	1	2
Preferred Mode of Delivery – Traditional Format and Some Intensive Formats							
Current Developments	5	5	4	4	4	2	3
Gifted & Talented	4	5	4	4	4	2	3
Arts 1 (Music)	4	2	3	4	1	1	2
Preferred Mode of Delivery – Intensive Format							
Current Developments	1	5	5	5	2	2	2
Arts Education	-	5	5	5	5	2	2
Arts 2 (Visual Arts)	-	5	5	5	5	2	2
Preferred Mode of Delivery – Traditional Format and Web Delivery							
WWW in Ed. and Industry	5	1	1	1	1	5	4
Curric. Dev. in SOSE	5	2	2	2	2	4	4
SOSE	5	2	2	2	2	4	4
Preferred Mode of Delivery –Intensive Format and Web Delivery							
Teach. Students with Learn. Difficulties	2	3	4	2	2	2	4
Preferred Mode of Delivery – Traditional Format, Intensive Format and Web Delivery							
Educational Psychology	4	2	4	1	2	3	4
Teaching to Difference	4	2	4	1	2	2	4
Computers in Schools	4	4	4	1	1	2	5
Learning Technology 1	5	1	4	1	1	1	5
Learning Technology 2	5	1	4	1	1	1	5
Cross Cultural Education	5	5	5	5	5	4	4

Special Project	5	5	5	3	3	3	4
Assessment & Reporting	5	5	4	4	4	3	4

The summary provided in Table 9 highlights not only the different perceptions of various academic staff and the suitability of various modes of delivery for the subject/s they convene, but also the strength of their perceptions toward various modes of delivery to enhancing the learning outcomes. It is suggested that the information summarised could usefully assist in course planning and organization, as well as providing a platform for conversations about the advantages of preferred modes of delivery. In particular, subject offerings should take into account students' ability and inability to participate in various modes of delivery as well as their preferred modes of delivery. For example, several subjects which are offered over a series of weekends will need to address this being students' least preferred form of delivery.

Again, interestingly, despite Griffith University's encouragement of web-based delivery, only four subjects of the thirty subjects listed were identified strongly as being able to achieve quality learning outcomes in web-based delivery and a total of eleven subjects were identified by subject convenors as being able to achieve quality learning outcomes through web-supported delivery. This is either explained by the perception of and justification by the respective subject convenors that their subject cannot be effectively delivered only by web-delivery, that effective delivery of their subject requires students to be involved in learning activities which the web cannot facilitate, or that there is a lack of awareness on the part of some academics regarding the potential of the new technologies.

Unanswered questions remain and require further examination. For example, do intensive formats suit some students better than others. For example, Currall and Kirk (1986) reported that students with higher grade point averages benefit more from intensive instruction, while Lasker et al. (1975) suggested that students with an experiential style of learning respond better to intensive formats. Moreover, in determining that the design for subject delivery is critical, what are the optimal factors and conditions required in that design? This study has provided information that design factors need to take account the subject to be taught in choosing the mode of delivery, opportunities for students to be engaged in discussions, workshops and activities as well as traditional lecture presentations, and to take into account students' ability and inability to participate in the modes of delivery.

Identifying Issues Relating to Modes of Delivery

From the surveys, the following recurring issues were raised by staff and students:

1. Design is critical.

Success and effectiveness dependent upon positive relationships, pedagogically and educationally sound design, content, deep learning, relevance to needs and interests of students, teaching strategies, facilities and assessment strategies.

- *"The design is critical. Quality in terms of subject design for effectively developing positive relationships, content, deep learning, relevance to needs and interests of students, teaching strategies, use of facilities, and assessment strategies requires careful planning as well as opportunities for some negotiation with students."* (Academic, School of Education and Professional Studies)

- *"So much of the effectiveness of IMD depends on the reasons of the lecturer. When done for pedagogically and educationally sound reasons then success is likely but when done to reduce load/ contact etc, then it is 'doomed'."* (Academic, School of Education and Professional Studies)

- *"However, I think there needs to be a certain type of lecturer to be able to pull off an intensive mode subject. They need to be interesting and passionate about their subject and break it up, so it's not all just talking and writing."* (2nd Year Student)

2. Some subjects were more suitable for intensive modes of delivery than other subjects.

Academic staff and students indicated that some subjects could be taught effectively intensive mode, while other subjects required delivery over a longer period of time. The perceptions of academic staff who convene various subjects presented above in Table 9 clearly supports this finding.

- *"Some subjects eg. Curriculum, are more effective over a longer time eg 14 weeks; combined with prac teaching. This longer period allows students time for reflection, application and discoveries with peers about these important subjects. In intensive mode these characteristics are not as effective for curriculum subjects. In other subjects – the substantive area ones; e.g. Cross cultural Ed, intensive mode is appropriate because the content matter is of a different pedagogical nature."* (Academic, School of Education and Professional Studies)

- *"Lots of high content subjects wouldn't be appropriate e.g. English."* (2nd Year Student)

- *"Subjects which have a strong performance focus would be better suited to intensive delivery. Other subjects which are more theoretical content need the extra time offered by traditional format."* (3rd Year Student)

- *" IMD involves far too much content in too brief a time (especially in regard to a heavily content based subject). It seems to be working very well with Art education however. Therefore, for "fluffy (sorry) subjects"its OK. For difficult, definition – loaded subjects, it fails to a degree."* (3rd Year Student)

3. **The duration of the Preservice Teacher Education program could be condensed.**

Some students advocated for a condensed duration of the preservice teacher education program on the basis that IMD would be a more effective use of time. As evidenced by the sample of comments presented below, some students believe that only 12 to 13 hours of contact time per week for semester formats for subject delivery extends the length of the program which could be shortened by more intensive delivery.

- *"It would be interesting to condense the time it takes us to complete this degree (without overloading us) so that if it were possible to complete a B Ed in 2.5 years – why don't we try it? It seems like a waste of everyone's time if we are capable, professionally, to be admitted in the profession. After all, we still have probation period of one year before we can be considered teachers."* (1st Year Student)

- *"It would be fantastic if we had intensive mode due to the fact that we can finish our degrees earlier. I seemed to learn more in intensive mode, however depending on the subject it can be quite exhausting."* (1st Year Student)

- *"Would very much like to see more units of study offered this in intensive mode – for students in 1st and 2nd years. Then subjects could be taken for interest sake, as well as making up credits during the year. The current course is sooooo long! 12 to 13 hours contact time seems to be so little – feel I could do it in a more intensive mode style."* (1st Year Student)

- *" If more of the subjects for this course were avail as IMD – we would have more time to observe & hence learn good/effective teaching practices by spending more time in the classroom."* (3rd Year Student)

3. **Concerns about and benefits of intensive delivery were articulated.**

Concerns related to suspicion on the part of some academic staff that IMD does not produce quality learning outcomes, students concerned with the impact of IMD on their time commitments, and some limitations perceived by students relating to the 'cramming' of content in IMD.

- *"I have little or no faith in curriculum subjects taught in Intensive mode. There may well be some subjects suitable but lack of opportunity for reflection/debate/links with Professional Studies/cumulative assessment/etc would dramatically decrease effectiveness of Curriculum Studies. (and have difficulty modelling teaching and learning in schools)."* (Academic, School of Education and Professional Studies)

- *"I do not think that IMD was particularly useful to me. I think that the desire of the lecturer to cram as much content as possible + assessment in a short space of time results in less long term retention of content."* (2nd Year Student)

- *"Evening classes are difficult on those that rely on public transport and safety issues may arise."* (3rd Year Student)

- *"Time, time, time, time, time. Yes we do understand that university should be our first priority but in reality food is our first priority along with shelter. IMD subjects NEED to be more flexible, particularly in assessment. Is it really fair to have assessment at the end of a week long subject when some students have had to work 3 or 4 nights that week. It causes a lot of stress for all involved."* (3rd Year Student)

Considerable benefits were identified by staff and students as it is more focused, and more productive. There was also evidence that a balance or mix of traditional delivery and IMD was preferred by students.

- *"With intensive delivery there is less stress on students & it forces students to do better as is less up to them at home to do more work. More time at uni = less time spent at home, so students will spend more time on assessment as they are forced to be at uni for so many hours."* (1st Year Student)

- *"Love teaching intensive mode format."* (Academic, School of Education and Professional Studies)

- *"I prefer an intensive mode because it keeps you on task and I would prefer more in-school time."* (1st Year Student)

- *"I think intensive mode is good because you get more out of it and I think you are able to learn a lot more because it all follows on, and there isn't much stopping and starting."* (2nd Year Student)

- *"I think a lot more of the workload could be covered in "on-campus" time. The workload "off-campus" is too heavy. Most people (students) have many other commitments to fulfil in "off-campus" time. i.e. Family commitments; social commitments (and these are not necessarily frivolous ones) and sporting commitments. An intensive mode of delivery weeds out students who are not committed; allows more time with teachers and fosters extensive student networks. Let's get degrees back down to 3 years of intensive & relevant study."* (1st Year Student)

- *"More productive. Eases the workload for the rest of the semester. Time worthwhile."* (2nd Year Student)

- *"I think it is a great idea only for particular subjects – it gives semester good balance with both IMD and traditional subjects."* (2nd Year Student)

- *"In my experiences with intensive mode, they have all been positive and you come out of the week feeling like you have really achieved something, in such a short time."* (3rd Year Student)

- *"Web based delivery is fantastic."* (3rd Year Student)

3. **Value for Money**

Questions were raised by some students relating to their perception that subjects which were either web-delivered or done in intensive modes were not value for the money they paid given that there was minimal or no lecturer face-to-face contact.

- *"When undertaking Educational Psychology the flexible learning mode was great, however, I do believe that it should have been used in conjunction with more lectures (there was only 1 lecture and weekly 1 hour tutorials). I felt the flexible learning needed to be synthesised in some way and I didn't feel that was done adequately in the tutes, although the tutor did provide lots of valuable feedback and anecdotal information. Also this subject cost the same amount as traditional subjects which seems a bit unfair given the support offered in lectures and by lecturers."* (2nd Year Student)

- *"I have some queries in regards to the "amount""$" paid for a subject when you have little or no contact with lecturers/tutors and still have to purchase CD Rom/texts and internet time if using a computer from home (which seems to be the main reason for flexible delivery). Also our student guild fees are not realised, as on weekends there are no facilities and if using flexible delivery we are not using services anyway?????"* (2nd Year Student)

- *"Why pay University fees to be here for a few intensive sessions."* (2nd Year Student)

- *"The cost factor of traditional Vs intensive mode needs to be addressed. If only to avoid the perception that students are not getting value for money."* (3rd Year Student)

6. Concerns and benefits related to weekend delivery of subjects.

There were contrasting views expressed about Weekend Delivery. There were substantial numbers of negative reactions to weekend delivery when compared with other formats. Concerns related mainly to conflict with students' personal commitments, and in some instances students felt that it was difficult to maintain concentration for the required length of attendance.

- *"Weekends – I also got very sick of the subject (EPS2101) at the end of the whole weekend and I began to turn off."* (1st Year Student)

- *"Weekend delivery does not suit me. I am a full time university student therefore make myself available Monday to Friday. I do not think it is reasonable to expect us to come to uni on the weekends as well."* (2nd Year Student)

- *"Most of us can only work weekends; a pay cheque can be more appealing when the subject is dull and not meaningful."* (3rd Year Student)

- *"With other commitments away from campus – IMD would place too much pressure, having to organise for the kids to go somewhere – my volunteer work within a school working with learning difficulty kids*

would be mucked up something would have to give. Semester long delivery is the best mode for me and I can spread it out." (2nd Year Student)

- *"Work commitments is a very big issue in this arrangement with weekend modes. Sure, have it, but do it during week days."* (2nd Year Student)

- *"It might help to offer 2 different delivery time slots. I.e. Weeks 3, 6, 9 –weekends...OR!!!...week 1 – Intensive Mon – Fri 8.30am – 4.30 pm."* (3rd Year Student)
- *"The only problem I have with IMD is time away from my family. I like the idea of IMD during the week. This seems a good option."* (2nd Year Student)

- *"IMD may have a lot of positive aspects but I find as a single mum, school hours/days are more suited."* (2nd Year Student)

- *"I think IMD should be done during week days – so as to accommodate the "family" people & also the young unattached (as they mostly work weekends to supplement their studies. No weekends – we mostly are here 5 days a week, too much – 12 days straight!"* (2nd Year Student)

- *"I can organise weekends but too many makes it difficult with family commitments. If you cannot make it what do you do?"* (2nd Year Student)

Despite the difficulties students identified in relation to attending on weekends, students evaluated some of those subjects very strongly due to the enthusiasm of the lecturer, and the organisation of the subject.

7. There were perceived benefits for students being involved in on-campus studies.

Students highlighted the benefits and their enjoyment of on-campus studies. In particular, they reported the importance of interacting with other students, lecturers and tutors, and for effective learning there was a need for sustained teaching and learning accompanied by on-going contact time. Moreover, whilst it wasn't examined in this review, there is anecdotal evidence from some students which suggest that their preference to enrol at the Gold Coast campus was influenced by the attractiveness of the Gold Coast campus and its on-campus facilities.

- *"Coming to uni for only a couple hrs a day is good in that it puts me into "study mode" and I'm likely to stay and put in some work in my own time; e.g. in the library, computer lab etc."* (1st Year Student)

- *"Due to work and other commitments I cannot come to University everyday so Intensive format is not an option for me. Also I would rather come to uni and have lectures and tutorials rather than work at home using the Internet. I believe you need to interact with other people as well as your lecturers to get a feel of the subjects you are doing."* (1st Year Student)

- *"Benefits of On-campus Study."* (3rd Year Student)

- *"The hours we are here for intensive , gets us, education students in the routine of working school hours, 8 til 4, we stay on task all day, every day."* (3rd Year Student)

- *"While this mode of study may suit a lot of people due to the attraction of minimal attendance time, I believe in order for students to truly conceptualise the information in a subject being taught, it needs to be taught over a longer period of time with ongoing contact time."* (3rd Year Student)

Recommendations

The review has revealed significant information and identified a range of issues related to various modes of delivery. From the findings reported, the following recommendations were made:

It is recommended that…

1. *Student background information is used to inform planning for determining the modes of delivery for subjects*; esp.

- o Students' ability and inability to attend weekend delivery needs to be considered in decisions regarding the mode of delivery. Where subjects need to be offered in this mode, students will require early notification to enable them to make special arrangements to enable their participation on weekends.
- o As not all students have access to the Internet off-campus, web-supported delivery which allows for on-campus Internet access needs to be provided.

2. *Learning environments are created in all modes which promote discussion and 'time on task' by students.*
3. *In order to achieve quality learning outcomes, the design of the subject is critical. In particular, the design must provide students with opportunities to link theory and practice.*

4. Flexibility is encouraged in the options for subject convenors which allow for a variety of modes of delivery to be employed to provide the optimum learning environment for achieving quality learning outcomes. The mode needs to be determined on the basis of sound pedagogical and educational reasons for each subject based upon an understanding that different subjects are best suited to different modes of delivery.

5. Academic staff and students recognize and support the benefits of on-campus studies by students in the School of Education and Professional Studies.

6. Academic staff clarify shared understandings between staff and with students about assessment expectations for subjects offered in intensive modes. In particular, are all assessment tasks to be completed within the intensive mode time frame?

7. Strategic consideration be given to examining the possibilities of introducing 2-3 week intensive delivery of some subjects to complement current 1 week intensive delivery and traditional semester length delivery of subjects.

8. Further academic staff awareness, technical support and professional development be provided to increase academic staff and student exploration of the potential of the new technologies as a platform for enhancing subject delivery.

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