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Investigating flexible delivery strategies that meet the needs of Remote Area Teacher Education Program (RATEP) Diploma of Education (Aboriginal and Torres Strait Islander) students.

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Abstract

This paper reports on the findings of research which investigated Remote Area Teacher Education Program Diploma of Education (Aboriginal and Torres Strait Islander) students' opinions, attitudes and perceptions of flexible delivery strategies. The three students who participated in this qualitative research studied the Diploma of Education (Aboriginal and Torres Strait Islander) between 2003 and 2004. Data was collected via semi-structured, open ended interviews and presented as case studies.

The research findings highlight the complexities of student-centred flexible delivery. This study found that all students needed regular interaction, support and feedback from peers and teaching staff, however, the focus on self paced, independent learning inhibited this. Furthermore, timelines for participation were necessary in order for students to develop independent learning skills. Each case highlighted a preference for different delivery modes and strategies. However, this study found that participants could cope with delivery modes and strategies that did not match their preferred way of learning if there were high levels of support, convenience and flexibility.

In conclusion, recommendations for practice are suggested. These include increased group paced delivery in order facilitate regular interaction, support and feedback. Strategies include more face to face block delivery and the facilitation of an online community of learners. Finally, production of a student handbook containing course information, delivery plans and due dates for assessment is recommended to support the development of independent learning skills.

INTRODUCTION

The Remote Area Teacher Education Program (RATEP) is a community based teacher education program, operated by Tropical North Queensland TAFE (TNQTAFE), James Cook University, Townsville (JCU) and Education Queensland (EQ). The Diploma of Education (Aboriginal and Torres Strait Islander) training package is developed, delivered and assessed by the Registered Training Organisation (RTO), Tropical North Queensland TAFE (TNQTAFE)¹, in consultation with Indigenous community

¹ In order to reduce the use of acronyms in this paper, the Remote Area Teacher Education Program (RATEP) will be referred to as 'our program', Tropical North Queensland Technical and Further Education (TNQTAFE) will be referred to as 'our institute' Remote Area Teacher Education Program (RATEP) Diploma of Education (Aboriginal and Torres Strait Islander) students will be referred to as 'students'. A glossary of acronyms is also provided (Appendix A).

representative groups. Upon completion of the Diploma of Education, students can articulate to second year James Cook University Bachelor of Education studies.

In 2004, Diploma of Education students received instructional materials from our institute which were predominately print based learning guides. Students were supported by our institute's staff through a variety of flexible delivery strategies and studied at one of seventeen Remote Area Teacher Education Program 'sites' in communities throughout Queensland (usually a room in a primary school), with the support of teacher coordinator employed by Education Queensland. In Semester 1, 2004, approximately 60 students were enrolled in various stages of the Diploma of Education course.

In 2004 and 2005 I interviewed three students in order to investigate their opinions, attitudes and perceptions of flexible delivery methods and to determine which flexible delivery modes and media best meet their learning needs.

LITERATURE REVIEW

Flexible delivery, flexible learning

Throughout this research paper, I use the term 'flexible delivery' as I am focusing on delivery strategies and how these meet the students' needs. However, the terms flexible delivery and flexible learning are used interchangeably during the literature review.

Early definitions of flexible learning (FDWP 1992, 1993, 1995; Misko 1994) focused on two common themes; increased access to training and education and a focus on the learners' needs. Increased access is achieved through student-centred approaches that provide learners with greater flexibility regarding delivery modes (self-paced, resource-based and technology enhanced), delivery venues and assessment practices (Misko 1994, p. 8).

The Australian National Training Authority's (ANTA 1996b, 2001) definition of flexible learning is similar to that of the FDWP (1992, 1993, 1995) and Misko (1994). ANTA (2001) suggests that flexible learning enables a range of learning strategies to be implemented in a diverse range of environments. This caters for differences in learning styles, learning interests and needs, and the differences in learning opportunities, including on-line (p. 6).

According to FDWP (1995) components of flexible delivery include;

- access considerations (access and equity)
- desired outcomes (curriculum structure, assessment requirements, recognition)
- convenience (timing, venues and facilities, administration)
- learning effectiveness (learner empowerment, support personnel, delivery media and courseware).

The Flexible Delivery Working Party (FDWP 1992, 1993, 1995), Misko (1994) and Peoples, Robinson & Calvert (1997) propose that learner needs can be met by focusing on student-centred approaches to learning and developing individualized instruction. These approaches are based on the assumption that students achieve greater learning outcomes when they participate in self-paced, individualised learning programs.

However, Misko (1994) states that while there is some evidence that self-paced, individualised learning is more effective than teacher directed learning in universities and community colleges, 'this is not the case in elementary and secondary schools'

and suggests that further studies with Australian TAFE students need to be conducted to determine if this approach to learning is indeed more effective' (p. 46).

The FDWP (1993) highlights the importance of independent learning skills in the context of self-paced, flexibly delivered learning and states, 'Success for flexible learners demands that they master independent learning skills...the teaching of study skills, a vital ingredient throughout the curriculum, takes on an added significance in open learning' (p. 109). Misko (1994) also notes the importance of students taking initiative to seek support in flexibly delivered programs. She states, 'A student-centred approach relies heavily on ...their interpersonal skills to make sure they approach teachers...to get the resources and advice they require' (p. 41).

Grace's (2001) study found that self-paced learning that relies on self-direction, independent learning skills and meta-cognitive skills is not necessarily successful and found that many VET learners were not prepared for flexible delivery as they lacked the '...readiness for self-directed and resource-based learning' (p. 17). Grace's findings also correlated with those of Smith (2000) who found that self-paced, resource-based delivery was unlikely to be successful without learner support, human interaction and guidance. In addition, Smith (2000, cited in Grace 2002) found 'that VET learners are not well prepared for flexible delivery that requires self-direction in learning' (p. 15).

The second assumption about student learning that has driven the development of self-paced, resource-based learning is: students learn best when delivery modes and media match their preferred learning styles (Misko 1994, p. 38). However, Misko (1994) questions the practicalities of student-centred approaches, based on matching delivery modes to learning styles and states, 'The complexity of the task may in fact lead instructors and administrators to the conclusion that structuring learning activities to suit the individual learning styles of students may be more trouble than it is worth' (p. 42).

Grace's (2001) study of *Barriers to learners' successful completion of VET courses* also highlights the complexities of attempting to cater for the preferred learning styles of all students. However, Grace (2001) questions this from a pedagogical perspective rather than a practical one. She suggests that learners' needs would be better served if they learnt how to cope if the delivery methods do not match their learning style. She cites the work of Boote (1998) and Smith (2000) and suggests that a focus on the development of students' meta-cognitive and study skills is more effective as this will enable learners to cope with delivery strategies that are not in tune with their preferred learning styles.

More recent definitions of flexible learning developed by the Australian Flexible Learning Framework (AFLF) also focus on 'client' needs and 'choice' (2003b). However, unlike the FDWP (1993) and Misko (1994) who have developed definitive accounts of flexible learning, the AFLF (2003b) suggests that flexible learning means many things to many different people. Nevertheless, the AFLF (2003b) definition is on par with Misko (1994) and the FDWP (1992, 1993, 1995), stating that all flexible learning is driven by the underlying principle of choice, which is enabled by technologies (p. 1).

Peoples et al. (1997) are not so relaxed about this difference in perceptions. They state that flexible delivery and flexible learning are often viewed as one and the same even though they are two essentially different concepts. This perception of flexible delivery is problematic as successful implementation will be difficult without a clearly

agreed definition. They state, 'The concept runs the risk of becoming all things to all people. The term flexible delivery is being asked to carry too many notions' (p. 6).

However, LearnScope (2004) suggests that the interchangeable use of the terms flexible delivery and flexible learning merely reflects changes to the way flexible delivery has been perceived over the last decade, where the focus has shifted from the deliverer to the learner. LearnScope (2004) states, 'During the 1990s, flexible delivery was relatively new. Since then the idea has become an integral part of our teaching and learning practices but some people don't like to talk about flexible 'delivery'. They feel this draws attention away from the learner. Their preferred term is flexible 'learning' (p. 16).

Despite the shift from flexible delivery to flexible learning and the interchangeable use of these terms, the underlying philosophy of flexible learning has not changed dramatically since 1991. The central tenet of flexible learning remains the same; learner-centred and client focused (AFLF 2003a, n.d.a, n.d.c). However, more recent definitions and descriptions of flexible learning place a larger emphasis on the role of technology in flexible learning. This is not surprising given the advances in technology over the past decade.

Earlier definitions of flexible learning, such as Misko (1994) and FDWP (1992, 1993, 1995) see the role of technology as an enhancement to delivery. However, the application of learning technologies was seen as a means of increasing access as early as 1995 (FDWP 1995). More recent definitions of flexible learning maintain the link between technology and increased access and espouse the benefits of technology and its ability to transform our lives (AFLF 2003a). The AFLF (2003a) suggests that although technology and flexibility are not mutually exclusive, technology is increasingly being adopted and blended into VET delivery. Technology has the potential to transform the provision of VET and provides more choices as it increases access to participation.

Finally, in all AFLF definitions of flexible learning, the word future is synonymous with technology (2003a, n.d.a, n.d.c). It appears that online learning has an increasing role to play in flexible delivery modes both now and in the future.

Online learning and Aboriginal and Torres Strait Islander peoples

All definitions of flexible learning emphasise e-learning and the use of information computer technology (ANTA 1996, 2000, 2001; FDWP 1993; AFLF 2003b; Misko 1994). AFLF (2003b) states that 'technologies enable real choice' (p. 1) and suggests that new technologies can transform the way that education and training is delivered (p. 1).

This element of 'choice' is recognised in Kilpatrick and Bell's (1998) review of research of VET in rural and remote Australia. They found that the growth of information and communications technology will increase access to education and training for Australians in rural and remote Australia.

Moreover, the *Partners in a learning culture strategy* (ANTA 2000) identifies information technology as one way to increase culturally appropriate and flexibly delivered training for Indigenous peoples (p. 4) and has also recognized that the 'population dispersal of Indigenous Australians favours distance and online learning' (p. 6). Indeed, ANTA (2000) suggests that the inclusion of information technology and online training strategies are necessary to meet the cultural, social, economic and political needs of

Indigenous Australians in VET. However, there are many factors that need to be in place in order for online delivery modes to be effective.

Firstly, the AFLF (2002b), ANTA (2000) and Kirkpatrick and Bell (1998) highlight the importance of a blend of technology and face-to-face teaching in all flexibly delivered programs. ANTA (2000) state, 'For Indigenous people, information technology can complement human 'face-to-face' teaching and learning – but it will not replace it' (p. 26). While Kirkpatrick and Bell (1998) suggest that some face-to-face component or mentoring needs be incorporated into flexibly delivered programs for all learners, 'whether they are print or technology based' (p. 34), the NCVET (2002) suggest that all learners learn more effectively if there are high degrees of social interaction. This can be facilitated using online delivery modes (p. 8).

Other common elements identified as crucial to success in technological delivery modes include: developing a sense of community and group identity in the online environment, the provision of flexible delivery strategies to suit individual learner needs, high levels of interaction, feedback and communication between teacher and students and amongst students, the provision of technical and academic support and finally, learner aptitudes such as independent learning skills and motivation to self direct learning (Brennan, McFadden & Law 2001; Kirkpatrick & Bell 1998; NCVET 2002).

Furthermore, the AFLF (2000a, 2000b) and ANTA (2000) have identified strategies to meet the needs of Indigenous Australians in the context of online delivery. These include the provision of 'truly flexible' delivery (AFLF 2002b, p. 4) that takes into account cultural and family obligations, an understanding of Aboriginal learning preferences, English literacy and technological literacy development as well as ongoing technological skill development (ANTA 2000; AFLF 2000a, 2002b). However, the importance of developing technological skills and confidence in the online environment is not a need unique to Indigenous learners. Misko (1994) also comments about the importance of developing students' confidence and skills in the online environment.

Culturally appropriate delivery of Vocational Education and Training

Much of the literature that focuses on Aboriginal and Torres Strait Islander learners in vocational education and training views flexible learning as a positive response to training (ANTA 2000; McIntyre, Ardler, Morely-Warner, Solomon & Spindler 1996a; Robertson, Sclanders, Zed & Donaldson 2004; Robinson & Hughes 1999, White & Marika 1999). It is believed that the choice and control inherent in flexible learning can increase access to, and participation in VET as training can be developed so that it is culturally appropriate (ANTA 2000; McIntyre et al. 1996a, 1996b; Robertson et al. 1996; Robinson & Hughes 1999; White & Marika 1999).

Robertson et al. (2004) suggest that culturally appropriate delivery 'involves training that is developed and delivered in a way that takes into account a learner's cultural and background needs' (p. 15). They go on to state that 'flexible delivery is one way to make training more culturally appropriate' (p. 15). This is because flexible learning enables Indigenous learners to prioritise family and cultural obligations and responsibilities and balance these needs with their training needs.

ANTA (2000) equate local community control with cultural appropriateness and include content, delivery mode and timing as aspects of culturally appropriate training. The underlying premise is that flexibility focuses on providing learners with choices regarding their training, which results in greater control and success. This is in line with the definitions of flexible delivery espoused by Misko (1994) and the AFLF (2003a, n.d.a, n.d.c).

Research conducted by McIntyre et al. (1996a) examined the factors that affect the outcomes of participation for Indigenous Australians in vocational education and training and the factors that lead to positive outcomes in vocational education and training for Indigenous Australians. This research found that culturally appropriate flexible learning is characterised by the inclusion of two way learning, learner choice, cultural relevance and appropriate delivery. This is achieved through negotiation with Indigenous Australians.

This view of culturally appropriate practice in flexible delivery is also reinforced by Gude and Pascua-McGlew (1997, cited in Robertson et al. 1999). They suggest that flexible learning suits Aboriginal learners as learning can be delivered in Aboriginal communities. They assert that flexible learning is culturally appropriate as it is self-pacing which enables learner control (p. 92).

The Remote Area Teacher Education Program delivery model is also based on the assumption that flexible learning delivered in students' communities is culturally appropriate as students maintain connection to family and culture (Lenoy, M. 2005, pers. comm. 19 May). High levels of student support are provided by a full time, on site teacher coordinator. Osborne and Tait (1998), discussing the Bachelor of Education component of the program, highlight the effectiveness of teacher coordinators and state; 'RATEP is...successful with graduation rates of over 85%. This success can be attributed partly to students not having to leave their communities to learn most of the content...partly because of the excellent on-site support they receive from their tutors' (p. 79). Henderson and York (2003) also acknowledge the important role of the teacher coordinator in the program and state; 'RATEP has shown that the dedicated focus of coordinators is an essential ingredient in the program's success' (p. 83). Henderson and York (2003) describe the teacher coordinators as 'mediators and go-betweens', acting on behalf of the students and dealing with James Cook University.

Many studies conducted with Indigenous students have noted the importance of approachable teachers who develop positive relationships with students (ANTA 1996b, 2000; Hughes et al. 2004; McIntyre et al. 1996a; Robinson & Hughes 1999). Robinson et al. (2004) also found that 'desirable traits of teachers appeared to be more influential than ...the ethnicity of staff' (p. 60).

Cape York Partnerships (2004) have noted reservations expressed by Indigenous leaders about the approach to Indigenous culture in 'culturally appropriate' education and training. They state, 'culturally appropriate' training, where 'cultural adjustments to training and assessment promoted by the vocational education and training system in the name of equity and respect for Indigenous culture appears misconceived' (p. 9). They believe that culturally appropriate training has become an 'alibi' for lower standards 'in terms of expected standards of delivery and outcomes' (p. 9). Instead, The Cape York Education Strategy is based on principles such as 'culturally engaged, respectful and sensitive' education and training, where the focus is on bi-cultural education and training (p. 9).

There are differences in the definitions of culturally appropriate training, as well as concerns regarding such an approach to training. However, there are also many common elements in the literature regarding culturally appropriate training. These include the importance of negotiation, flexibility regarding where and when training is conducted, student support, self-paced learning and learner choice. What should be noted, however, is that the focus of culturally appropriate practice is on increasing access and participation through strategies such as flexibility and independent and self-

paced learning. However, what is not mentioned in the literature that promotes flexible delivery as a culturally appropriate training strategy, is the importance of developing independent learning skills, and the consequences of not doing so (ANTA 2000; McIntyre et al. 1996a, 1996b; Robertson et al. 2004).

Learning styles and culture

Learning styles theory has greatly influenced educational practices developed to meet the specific needs of Aboriginal and Torres Strait Islander people and continues to dominate approaches to teaching and learning (Nicholls, Crowley & Watt 1998, p. 37). Therefore, it is not surprising that there is a large body of literature that examines Indigenous learning style theory and its impact on learning for Aboriginal and Torres Strait Islander people (Barnes 2000; Byrnes 1993; Dyson 2003; Eckermann 1988; Henderson & Putt 1993; McConaghy 1999, McLoughlin 1999a; Nakata 2003; Nicholls et al. 1998; Stewart 2002). However, the views of the authors regarding the relevance of Indigenous learning styles theory vary greatly. These views range from blind acceptance (Byrnes 1993; Henderson & Putt 1993) to caution (Barnes, 2000; Eckermann, 1988; Hughes et al., 2004; Stewart, 2002), to cries of oppressive practice (McConaghy 1999; Nakata 2003; Nicholls et al. 1998).

Aboriginal learning styles theory, initially developed by Harris (1980, cited in Harris, 1984; Nicholls et al., 1998) in the context of describing features of informal learning in North East Arnhem Land is based on the premise that Aboriginal and non-Aboriginal learners learn differently due to divergent cultural traits (Nicholls et al 1998, p. 32). Harris (1984), describes the features of informal Aboriginal learning styles as; 'learning by observation, by doing, by imitation rather than verbal instruction, by personal trial and error, by real-life performance, by persistence and repetition, as well as utilizing person orientation and the principle of learning through successive approximations to the efficient end product' (p. 7).

Dyson (2003) states that learning styles are defined as 'a consistent or habitual mode of acquiring or imparting knowledge through study, experience or teaching' (p. 10). Dyson (2003), Henderson & Putt (1993) and McLoughlin (1996b) all suggest that learner needs and preferences can be catered for through an understanding of different cognitive styles and ways of 'processing and presenting information' (Dyson 2003; Henderson & Putt 1993; McLoughlin 1996b, p. 10). However, Stewart (2002) warns about the dangers of linking cognitive development and learning styles to different cultural groups due to possible racial comparisons (p. 16).

Like Stewart (2002), Eckermann (1988) cautions against establishing 'intercultural differences' without an awareness of differences 'within cultural groups; even when generalisations may describe group tendencies, not all members of a group reflect these group characteristics' (p. 4). Barnes (2000) also acknowledges that generalizations 'cannot capture the complexity of Indigenous culture' (p. 9).

However, Barnes (2000) did find patterns in the learning preferences of the students in her study. These included; a preference for visual and oral strategies, movement from concrete to abstract, applied, contextualized learning, and developing positive and respectful relationships with teachers and students. Barnes' (2000) findings correspond with other descriptions of Aboriginal learning styles that are based on the work of Harris (1980). These descriptions proliferate throughout the literature (AFLF 2001, 2000b, 2002b; ANTA 1996b; Byrnes 1993; Harris 1984; Henderson & Putt 1993; Hughes et al. 2004; Robertson et al. 2004; Stewart 2002).

Although some authors support the concept of Indigenous learning styles (Byrnes 1993; Henderson & Putt 1993), there is also recognition of diversity and calls for caution. Hughes et al. (2004) propose that the following principles should guide the use of 'recurrent Aboriginal learning styles' and strengths; individual learning strengths must prevail, Aboriginal learning styles and strengths should not be compared with the learning styles of other cultural groups and listing these as opposing traits, cultures are dynamic as are Aboriginal learning styles and strengths and finally, students also need to develop areas of weakness' (p. 35). The ANTA publication, *Working with diversity: quality training for Indigenous Australians* (Robertson et al. 2004) also acknowledges the diversity of Indigenous groups and states, '...good teaching caters for a range of learning styles and this is especially important in working with Indigenous learners' (p. 16).

Applying generalisations and perceiving Indigenous Australians as a homogenous group can be problematic for reasons other than failure to recognise diversity. Nicholls et al. (1998) suggest that generalisations based on traditionally-oriented Aboriginal cultures not only fail to recognise the diversity of Aboriginal peoples, they also fail to consider the diversity of educational contexts. Moreover, developing pedagogy based primarily on cultural traits fails to take into account social and political contexts. Focusing solely on cultural traits is ineffective as this fails to consider the social dimensions of learning and the socio-political effects of colonisation (p. 39). They suggest that learning styles theory has become a rhetoric that legitimates Aboriginal oppression as the status quo' rather than viewing such 'failure' in terms of the politics of 'power and oppression' (pp. 45-46).

This discussion about learning styles based on cultural traits is also taken up by McConaghy (1999) who critiques Indigenous learning styles theory from a postcolonial perspective. She suggests that there has been a 'tradition of oppositional history' in Australia since colonisation. However, this goes back even further to the era of 'scientific racism' where Indigenous Australians were portrayed as 'naturally inferior'. McConaghy (1999) describes this 'binary logic' as a form of 'othering' and suggests that this logic is used to exclude or include cultural groups (or political and economic) from positions of 'privilege and power' (p. 9).

McDaniel & Flowers (2000) also caution against treating adult Indigenous learners as a homogenous group as this leads to division (mainstream adult education and Indigenous adult education) rather than diversity. Furthermore, the authors suggest that although Indigenous Australians share common histories, differences must also be acknowledged in order to examine how these attitudes continue to contribute to colonial dominance and marginalisation of diversity (p. 24). Finally, Nakata (2003) notes that the failure of educators to move beyond the concept of cultural difference has maintained the status quo of failure, developed false preconceptions that result in inertia on the part of teachers, and a failure to acknowledge unique language and conceptual differences.

In spite of the recognition of diversity amongst Indigenous Australian learners, terms such as 'learning preferences' (Barnes 2000), 'teaching and learning practices' (Stewart 2002), 'recurrent learning strengths' (Hughes et al. 2004), 'Indigenous ways of learning' (Robertson et al. 2004) or strategies such as applying particular attributes and characteristics to a particular group of Indigenous learners (Byrnes 1993; Henderson & Putt 1993) saturate the literature and the discussion remains the same: Indigenous people have preferred ways of learning that are culturally constructed.

METHODOLOGY

Qualitative case study

Qualitative approaches to research view knowledge as constructed (Cherryholmes 1993; Kvale 1996; Merriam 1998b; Wolcott 1994). This notion of constructed knowledge and meaning recognises that there are different interpretations of reality. Merriam (1998b) defines this construction of meaning as:

The key philosophical assumption...upon which all types of qualitative research are based is the view that reality is constructed by individuals interacting with their social worlds...Qualitative researchers are interested in understanding the meaning people have constructed, that is, how they make sense of their world and the experiences they have in the world (p. 6).

According to Denzin and Lincoln (1994) there are many ways to approach qualitative research, depending on the field, discipline and subject matter (p. 1). Merriam (1998b) also discusses many 'forms of inquiry' within the umbrella of qualitative research (p. 5). I have chosen a case study approach for my research, but before I discuss the issues that underpinned this decision, I will briefly define case study.

Stake (1994) suggests that case study is, '...not a methodological choice, but a choice of object to be studied. We choose to study a case. We could study it in many ways' (p. 236). The object to be studied, or the case, is described by Stake (1995) as an 'integrated system' (p. 2). This view is supported by Merriam (1998b) who suggests that in order for the phenomenon being studied to be a case, it must be 'intrinsically bounded' (p. 27).

Furthermore, case studies are used to investigate the complexity of unique real life social phenomenon (Stake 1995; Tellis 1997a, 1997b; Wallace 1998; Wolcott 1994; Yin 1994). In order to capture this 'complexity' case study includes detailed descriptions of the participants and contexts. Stake (1995) describes this as 'thick description' and suggests that this enables multiple perspectives and voices to be acknowledged (p. 39).

My decision to study a case, and to do so from a qualitative perspective, was influenced by several interconnected factors. These were: the aims of my research, the cross-cultural setting in which the research was conducted and the philosophy that underpins the program.

The focus on multiple realities and interpretations (Stake 1995, p. 43) that are inherent in case study supports the aim of my research. As Glesne (1998) explains, when conducting qualitative research, it is important to portray the participants' point of view (p. 6). Qualitative case study enables me to focus on multiple interpretations of reality in order to discover answers to my research question, rather than seek a definitive answer (Denzin 1994; Stake 1994; Wolcott 199, p. 10).

Finally, I needed to consider the context in which my research was being conducted: an Indigenous teacher education program. There are three main goals that underpin the Remote Area Teacher Education Program. These are: self-empowerment, self-determination and Indigenisation. Focusing on a case, from a qualitative perspective enabled me to give the participants a voice, and present the findings from the participants' perspectives, which is aligned with the goals of the program.

Data collection methods

Participants

The first four participants who responded to the invitation to participate (plain language statement) were to be asked to participate in the study. However, of the four participants who responded, one moved and the other one withdrew their consent. I then sent a plain language statement to local students who had studied the Diploma of Education in 2003 and received one response. Consequently, three participants were interviewed.

The decision to choose the first participants who responded was based purely on matters of practicality. Stake (1999) discusses such issues and suggests that due to the nature of case study, choices regarding sampling are often decided by one main factor: the 'opportunity to learn' and goes on to state, 'Factors such as access are often at the forefront of the selection of samples and as a result, samples are selected that provide variety, but are perhaps not representative or typical' (Stake 1999). As I have an intrinsic interest in each case (Stake 1995, p. 3), and the aim of my research is to learn about and describe the unique perceptions of each participant, a typical or representative sample is not necessary (Stake 1995).

Participant profiles have been developed using information I have gathered during the interviews and from my discussions with, and observations of, the participants throughout their studies. These profiles were written in consultation with each participant, and have been validated by the participants. The participants also chose their pseudonyms. These profiles follow.

Lorraine

Lorraine is a Murri woman, in her mid thirties and is a mother of four children. She lives in an Aboriginal community near a regional centre in Queensland, where her grandparents grew up. Lorraine has stated to me several times that she lives a semi traditional lifestyle and is proud of her strong cultural knowledge and lifestyle. She feels that she has had the best of both worlds as she was also able to access a good quality, 'urban' education that Aboriginal people in more remote areas may not have access to. Lorraine stated that this gave her the opportunity to develop sound literacy and numeracy skills. Lorraine is bi-dialectal and speaks Aboriginal English and Standard Australian English

Working as a teacher's assistant at the local school prompted Lorraine to study education. Her goals are to increase cultural awareness in schools and improve the educational outcomes of Aboriginal children, including her own. Lorraine participated in several literacy, numeracy and office procedures courses in the Aboriginal and Torres Strait Islander faculty at our institute more than ten years prior to the commencement of her Remote Area Teacher Education Program studies in 2004. She is currently aiming to complete her Diploma of Education by the end of 2005 and plans to enroll into 2nd year James Cook University Bachelor of Education studies in 2006.

Janine

Janine is a Murri woman, in her mid twenties and is a mother of one child. She lived in an Aboriginal community near a regional centre in Queensland while completing the program but has since moved to the regional centre.

She describes herself as multi-lingual and is able to speak Aboriginal English, Standard Australian English and basic Spanish. Janine also describes herself as a 'computer freak' and an 'internet freak'. Janine has completed Year 11 senior studies as well as a

Certificate in Visual Arts (Aboriginal and Torres Strait Islander), Certificate in Office Applications and first year Justice Studies. She had also worked in the private sector.

Janine commenced her Diploma of Education in February 2003 and completed this in August 2004. When Janine completed her Diploma of Education studies she felt that she had achieved her goal and saw no need to continue her studies at university level.

Karen:

Karen is a Murri woman, in her early fifties and is a mother of three children. She lives in regional Queensland and is a full time, third year James Cook University Bachelor of Education student. Prior to full time study, Karen had worked in both the public and private sector.

She grew up in regional Queensland and throughout her primary education attended the local one room school. She later attended the local high school. She was regarded as a 'genius' by the local school inspector when she was in Year 3 and remembers positive experiences at school, where her love of books and reading was nurtured. Karen describes herself as an independent and confident learner and she attributes her success at school to her mother, who continually reinforced the value of education.

In 2003, after a thirty year break from formal study she commenced studies in the program. Karen successfully completed the Diploma of Education in December 2003 and commenced second year James Cook University Bachelor of Education studies in 2004.

Karen speaks Standard Australian English, as does her mother and grandmother. However, she stated that her grandmother probably spoke some traditional language as well as Standard Australian English, as she was a member of one of the first generations of Aboriginal people educated by the missionaries in Queensland.

The interviews

The interview questions (see Appendix B) were prepared in advance, so that I could focus on particular aspects of the research problem (Glesne 1998, p. 68; Kvale 1996). When developing the themes I referred to the publication, *Flexible delivery in action* (FDWP 1995). This provided a framework that focused on the different aspects of flexible delivery from the perspective of the learner. The themes were also cross referenced with information regarding flexible delivery for Aboriginal and Torres Strait Islander learners that was highlighted in the literature review. This ensured that the questions related to both my research question and the literature review. Semi-structured, open-ended interviews that focused on themes also allowed each participant to determine which areas of flexible delivery were important to them and as a consequence, each case is quite unique.

Participants decided where they would be interviewed, which was either in a private space at the 'site' they attend (which is usually in a primary school in their local community), or in a private room at our institute. With the permission of the participants, the interviews were audio taped.

The interviews were transcribed after the first interview and participants were asked to verify the accuracy of the interview transcript before the commencement of the proceeding interview, with a short meeting soon after the final interview to verify the interview transcript of the final session. Participants also received summaries of the case study findings and I verified the accuracy of these summaries with them.

Why use interviews to collect data?

Data collection methods are largely determined by research paradigms and the capacity of the data collection methods to enable the researcher to discover meaning (Geertz, 1973 cited in Merriam 1998a, p. 242). As I was conducting my research within a qualitative, interpretive paradigm and was studying a case I needed a data collection instrument that would enable me to discover the multiple realities and perceptions of the participants. I also needed a data collection instrument that would provide me with the rich (Sturman 1999), thick data (Stake 1995) required to portray the participants' realities.

The decision to use interviews to collect data was also linked to the aim of the study. As I am attempting to determine the participants' opinions, attitudes and perceptions of flexible delivery, I needed to choose a data collection method that was 'sensitive to underlying meaning when gathering and interpreting data' (Geertz, 1973 cited in Merriam 1998a, p. 242). The spontaneous interaction that is a part of face-to-face, semi-structured and open-ended interviewing met these criteria (Merriam 1998b, p. 74).

When choosing the data collection method I was acutely aware of the historical and political contexts of research that involves Indigenous Australians. McIntyre et al. (1996b) describe this as 'the long history of indigenous people being 'objects for scientific study' (p. 51) and also suggests that data collection methods that 'can easily distort or silence the voices of indigenous people' are culturally inappropriate (p. 51).

With this in mind I decided that face-to-face, semi structured, open ended interviews would be the most culturally friendly data collection method as they would allow the participants to voice their opinions and elaborate on issues of most importance to them. Conducting face-to-face, semi-structured interviews to collect data provided a forum to clarify and develop a deep understanding of participants' attitudes and opinions through the use of interview techniques such as probing and asking for clarification (Kvale 1996).

Face-to-face interviews were also an appropriate way to collect data as many of the students speak English as a second language or dialect. The face-to-face interviews reduced the likelihood of the participant misunderstanding the question as they could ask for clarification. Face-to-face interviews also enabled me to monitor participant's understandings of the questions and read the participant's body language to determine if they misunderstood the question or just needed more time to think (or other factors).

Data presentation and analysis

Data presentation

The aim of my research is not to generalise, or to develop theory, but to describe each case in enough detail so that others can read each case and make connections and comparisons with their own context (Stake 1994; Wolcott 1994). Stake (1994) describes this type of case as intrinsic case study.

A descriptive approach to case study also supports the philosophy of multiple realities and interpretations that is integral to my research. This is supported by Wallace (1998) who suggests that detailed descriptions provide essential information for the reader to determine if the findings of the case study are applicable to their contexts. The case studies are presented in Appendix C.

Data analysis

As the aim of this study is to explore and describe the participants' perceptions, attitudes and opinions of effective flexible delivery strategies, data was analysed using an interpretive approach (Wolcott 1994).

Participant validation was an important aspect of data analysis and was achieved through consultation during the interview process, when writing the case study analyses and prior to the submission of my research. According to McIntyre et al. (1996b), 'One source of validity for interpretive research is participant validation – participants should be able to recognise their own stories in the reporting of the research' (p. 53). This notion of participant validation and consultation is supported by Tellis (1997a, 1997b) and Yin (1994) who suggest that the perspectives of 'actors' and their interpretation of findings is fundamental to case study validity.

Participant consultation is also in line with Australian Institute of Aboriginal and Torres Strait Islander Studies Guidelines for Ethical Research in Indigenous Studies (AIATSIS 2000) as well as the philosophy which underpins the program (TNQTAFE 2002, p. 32) within which this research is being conducted.

However, it needs to be noted that, 'even though committed to empathy and multiple realities, it is the researcher who decides what is the case's own story, or at least what of the case's own story he or she will report' (Stake 1999, p. 93). Stake (1995) describes this as the realisation of the researcher's consciousness (p. 41) and Wolcott (1994) advises, '...researchers are well advised to play a visible role, even when their goal is to have an informant's own story related essentially in the informant's own words' (p. 64).

As I am a non-Indigenous researcher conducting research with Indigenous participants it is pertinent that I consider how my behaviour, personal biases, 'consciousness' and subjectivity may influence the research (Merriam 1998b) as well as my role in the construction of data and interpretive process (Stake 1995). With this in mind, it seems appropriate to declare my role in this research.

As I am the program's Diploma of Education co-ordinator, I have a vested interest in the outcomes of my research. My perspective of truth and knowledge is framed by my Anglo Australian heritage, and my views as a thirty something, middle class female. I strongly believe in principles of social justice and despise disadvantage that has resulted from race, gender or socio-economic status. I believe that in my role as Diploma of Education co-ordinator, and through my research, I have a responsibility to develop best practice delivery strategies and consequently, assist the students to successfully complete the Diploma of Education.

Tuhiwai-Smith (1999) states, 'Research is an important part of the colonisation process as it is concerned with defining legitimate knowledge' (p. 173). She also reminds me that, as I am a non-Indigenous teacher, conducting research with Indigenous participants I am '...in receipt of privileged information' (1999, p. 176) and that I have the 'potential to extend knowledge or perpetuate ignorance' (176). It is my aim to extend knowledge. However, it is important that I consider the process of constructing knowledge in a cross-cultural context where those I am researching still live with the consequences of colonisation and racist practices.

However, Tuhiwai-Smith (1999) suggests that 'Researchers must go further than simply recognising personal beliefs and assumptions, and the effect they have when interacting with people' (p. 173). I have monitored my subjective bias (Glesne 1998)

throughout the research process and aim to achieve trustworthiness through implementing strategies suggested by Sturman (1999) for achieving credibility in case study. These strategies include explaining the procedures for data collection, reporting negative instances, acknowledging bias, relating assertions to evidence, distinguishing description from interpretation and tracking what was done during the various stages of the study.

FINDINGS

Delivery modes and learning styles

In 2003 and 2004 the Diploma of Education was delivered using learning guides that facilitated self-paced, independent learning. The learning guides also included group discussions and activities to be facilitated on site by the teacher coordinator. This self-paced learning was enhanced with delivery modes that promoted interaction, such as on campus residenceials, maths cluster workshop, field trip and occasional teleconferences. Some of the units of competence had online components, which consisted of video streams and discussion forums.

My research found that the model of delivery and the delivery media had a significant impact on participants' experiences throughout their studies. However, this was not the mitigating factor when it came to meeting their needs. In fact, my research found that students could cope with delivery modes and media that did not meet their preferred ways of learning if other needs were met. These other needs included, opportunities for flexible participation, suggested timelines for the submission of assessment, clear expectations and guidelines regarding assessment, and finally, culturally sensitive support from a variety of sources.

My research found that self-paced, independent learning did not meet the needs of all participants. Although Janine and Lorraine enjoyed the convenience of self-paced delivery, as this enabled them to balance family and cultural obligations with their study, they also needed the interaction that is inherent in group-paced delivery. Karen's case highlighted the difficulties she faced when participating in self-paced, independent learning. She needed the stimulation and interaction that only group-paced learning could provide.

Despite this mismatch of delivery modes and preferred ways of learning, Karen was able to complete the course by seeking the support of the course writers, which met her need for academic discussion. This helped her to adapt to a delivery mode that she did not prefer. Lorraine was also able to develop strategies to help her to cope when she was required to participate in delivery modes that did not match her preferred way of learning. Even though she found the repetition in the learning guides 'confusing', she overcame this because the learning guides suited her need for self-paced independent learning. In addition, she used other delivery modes, such as video streaming to overcome this confusion and to understand what was expected.

These findings are in direct contrast to Misko's (1994) comments that suggest that the move from 'traditional, group-paced, face-to-face lock step methods of teaching towards self paced independent learning' (p. 8) improves the quality of learning. Furthermore, these two delivery strategies are not mutually exclusive and to position them as such may have negative consequences for learners.

Flexible participation

Another important finding related to the concept of self-paced independent learning and flexibility. During the pilot year (2003) in particular, but also in 2004, the program's

Diploma of Education delivery model was based on the assumption that self-paced independent learning, where assessment was completed in a timeframe determined by learners, was synonymous with flexibility. Furthermore, flexibility and interaction were viewed as mutually exclusive.

However, my study found that the need for both flexibility and interaction could be met through online delivery that included asynchronous activities such as the online discussion forum and video streaming. Lorraine and Janine enjoyed the asynchronous discussion forum as they could interact with other students at a time that was convenient to them. Lorraine enjoyed participating in the discussion forum as it 'was like being in the classroom without seeing any faces'. Both Janine and Lorraine felt that they were part of a learning community when they participated in online activities. However, in Karen's case, a lack of interaction and feedback from both teachers and students in the online forum limited levels of satisfaction.

My study found that although each participant preferred a different blend of delivery modes and media, in all cases, self-paced learning needed to be balanced with delivery modes that promoted regular interaction with peers and our institute's teachers. This helped students to clarify, discuss and stimulate thinking. My findings correlate with research conducted by NCVET (2002) which found that 'all learners learn more effectively when there are high degrees of interaction' (p. 8).

A combination of synchronous delivery modes such as online chats, teleconferences and away from home base activities were also effective. All participants felt that this provided the opportunity to learn from each other, provided stimulation and a range of ideas. However, providing Janine and Lorraine with the opportunity to negotiate participation in group-paced, synchronous delivery modes was also important. They also needed a variety of media to enable them to participate where and when it suited them. Lorraine preferred to take her learning guide home so she could read this at night and focus on online activities and assessment when she was at the site. Janine enjoyed participating on the discussion forums from her laptop at home, during the evening. Doing so also helped both Lorraine and Janine to balance their other commitments and obligations with their study. Karen's need for interaction was greater than her need for flexibility. She preferred synchronous teleconferencing as the feedback and interaction was more instant. However, the effectiveness of this delivery mode relied on the willingness of other participants to contribute.

My study also found that due dates and flexibility are not mutually exclusive. On the contrary, self-paced independent learning, where students determined the timeframes for completion of assessment was ineffective as students found it difficult to effectively manage their time. In Karen's case, the lack of timelines and suggested dates for submission of assessment created a paradox. On the one hand the best thing about the Diploma of Education for her was the lack of pressure to complete assessment in a specific timeframe. However, this is also caused her much angst when she got to the end of the year and realised she still had a huge amount of work to complete. This lack of direction made her feel as though she was 'going blind'. Moreover, this placed all of the participants in a position where it was impossible for them to organise and plan their studies, and to be self directed learners who were able to take responsibility for their learning. Once again, the participants were able to overcome this obstacle by utilising other strategies. In this instance, all participants sought the assistance of their teacher coordinators to help them plan their workload and organise their time.

However, strategies that enable participants to develop independent learning skills must be incorporated into the delivery of the program. Firstly, this is important from a

pedagogical perspective as my study has confirmed the importance of developing independent learning skills in order to succeed in self-paced delivery modes. This recommendation correlates with the findings of Boote (1998) Grace (2001) Misko (1994) and Smith (2000) who also noted importance of preparing learners to succeed in flexible delivery by assisting them to develop independent learning skills. This suggests that this is not just an issue that is specific to the participants in my study, but is widespread in the context of flexible delivery.

Secondly, principles of self-determination, which underpin the program, can never be met if the participants are put in a position where they need to rely on others to help them to succeed as learners. When analysed from this perspective it could be argued that the omission of suggested due dates and timelines is culturally inappropriate. However, it should be noted that each participant wanted these timelines and suggested due dates to be flexible. None of the participants wanted to be penalised if they did not submit assessment by a due date.

Suggested timelines and due dates also need to be complemented with clear expectations and guidelines to complete assessment. My study found that delivery was effective for both Karen and Lorraine when they were provided with clear expectations and guidelines about course content and completing assessment. Strategies such as the video streamed lessons and unit overviews provided Lorraine with clear expectations and guidelines regarding content and assessment. Clear guidelines and expectations regarding assessment were also important for Karen as her teacher coordinator was not clear about these, which limited their ability to provide support. Furthermore, Karen sometimes disagreed with her teacher coordinator.

Facilitating effective interaction

My research found that group-paced sessions facilitated by the teacher coordinator were ineffective for each participant. Firstly, Lorraine was the only Diploma of Education student at her site so it was impossible for her teacher coordinator to conduct group activities with her. Secondly, Janine was working independently in a self-paced mode and at a different stage of the course than other Diploma students at her site. Finally, although Karen studied with a cohort of Diploma of Education students, her teacher coordinator did not conduct group sessions. This suggests that group-paced activities would more effective they were facilitated by our institute's teachers and involved all Diploma students at each site, as this would maximise peer interaction and facilitate learning.

However, a major concern that arose from each case related to the issue of risk taking and a fear of being wrong in group-paced interactive activities, such as the teleconferences or the online discussion. My findings showed that this impacted, to varying degrees, on levels of interaction and participation. In Lorraine and Janine's cases, this did not affect their overall participation. However this did create some angst for them when they were contributing their ideas in the forum. In Karen's case, her need for discussion and interaction with other students was not met as other students feared speaking up in the teleconference. This lack of participation from other students affected the quality of interaction, and in turn peer support. These findings highlight the need to develop confidence in order to assist participants to effectively contribute in an interactive forum.

It is clear from my findings that providing an induction to online learning during the first Diploma of Education on campus residential was effective. Both Janine and Lorraine's cases showed that this was an essential strategy to assist them to become familiar with

the online environment. Janine's case also highlighted the need for ongoing skill development, particularly using the keyboard through participation in online chats.

My research showed that the interaction between teachers and the participants was effective when our institute's teachers were approachable and took the initiative to 'open the door' to students. This relied on teachers developing positive relationships with participants and encouraging students to contact them. My findings are similar to those of ANTA (1996b) and McIntyre et al. (1996a) who also found that positive teacher and student relationships, and approachable teachers played a significant role in Indigenous students' success in VET and tertiary studies. These findings also relate to Misko's (1994) suggestion that the success of self-paced independent learning relies on students having the confidence to take initiative to seek support.

Culturally sensitive support

The findings of my research highlighted the importance of support for all participants. However, each participant needed different types of support from a variety of sources.

All three participants valued the support of their teacher coordinator as someone they could rely on for help and encouragement, especially when they faced difficulties. Karen's teacher coordinator was her 'confidante' and kept her 'on track'. Lorraine preferred to refer to her teacher coordinator about organisational matters or for assistance when she needed it. Janine's teacher coordinator was always there ready to help her with anything. Janine stated that she would not have completed her Diploma of Education without the support of her teacher coordinator.

All three participants had positive relationships with their teacher coordinators and they viewed them as tutors: someone to go to when you had a problem or needed guidance. This finding correlates with Henderson and York (2003) and Osborne and Tait's (1998) perception of the role of the teacher coordinator as tutor. However, my research found that Karen needed more than a 'go between' or a 'mediator' as she was quite willing and able to cope with these roles herself. Karen also needed more than a tutor to go to when she needed help. Karen needed someone who could provide her with accurate advice regarding course content and expectations, 'alternative ideas' and academic stimulation.

Peer support was particularly important for Lorraine, especially during away from base activities such as on campus residentials, field trips and maths cluster workshops. My study found that it was essential for our institute to consider the implications of grouping students during field trips and other away from home activities from a cultural perspective (for example, involving students when deciding the composition of groups). Failure to do so impacted on Lorraine's wellbeing and in turn, her learning.

Prior to undertaking this study I assumed that Indigenous student support officers were the only people who could provide culturally appropriate support to Indigenous students, particularly regarding sensitive issues. While Janine's case confirmed the importance of this support for students in remote communities, it also raised a host of issues that contradicted this assumption.

For Janine, an approachable teacher who was of the same gender and sensitive to her needs was more important than ethnicity. This correlates with the findings of Robinson and Hughes' (1999) study regarding the effective provision of vocational education and training to Indigenous peoples, so it is not a new finding. However, in Janine's case a lack of awareness regarding the availability of gender appropriate Indigenous student support officers impacted on the effectiveness of the support she received. This was

further exacerbated by a lack of understanding of the roles of our institute's teachers, which prevented her from contacting them for support.

My study also found that there was a range of perceptions about the role and existence of the institute's Indigenous student support officers. Lorraine was not aware of who the student support officer was and stated that she didn't need to contact them. When asked about support, Karen focused on academic support and never mentioned the Indigenous student support officer. This suggests that Karen needed academic support rather than administrative or culturally specific support.

Conclusion and recommendations

Conclusion

The main outcomes of my research relate to providing students with the necessary information and developing skills in order to succeed in a flexibly delivered course. All participants were faced with the complex task of balancing their own competing needs. For some, this included balancing the need for convenience that self-paced, independent, resource-based learning provided, with the need for interaction that group-paced synchronous and asynchronous delivery modes enabled.

Each participant preferred to learn in a different way, my study found, and contrary to the literature, matching delivery modes to participant's preferred ways of learning did not necessitate success. Developing effective flexible delivery strategies is a far more complex task than merely matching delivery modes to learning preferences. Moreover, when participants were provided with a variety of resources, delivery modes and support mechanisms they were able to overcome problems that occurred if the delivery strategy did not match their preferred way of learning. This balancing act also related to the need for flexible participation but also the need for timelines and suggested due dates. Success in flexible delivery depended on students developing independent learning skills, yet this was impossible in the absence of timelines and suggested due dates.

My study also revealed a need for high levels of interaction between the institute's teachers and the participants, and amongst peers. Online technologies and teleconferencing can effectively facilitate interaction if students are supported to develop their skills and confidence. In addition, support meant different things to each participant but support was central to success in every case. For support to be effective each stakeholder needed clear information and guidelines regarding their roles. Approachability and gender were also important factors when it came to effective support.

Recommendations

My research has provided some insight into the perceptions, attitudes and opinions of three Remote Area Teacher Education Diploma of Education (Aboriginal and Torres Strait Islander) students during the pilot year (2003) and second year (2004) of the implementation of the training product. The purpose of my research was not to generalise but rather to discover the unique perceptions of each participant. Doing so has not only demonstrated the diverse needs of the participants but has also highlighted the complexity of student-centred flexible delivery. Consequently, the following recommendations should be considered as specific to this study. However, they may also inform the development of best practice delivery in similar contexts.

These recommendations for best practice include developing a blend of synchronous resources that promote interaction, yet enable flexible participation. This could be achieved through the development of additional online resources and through regular online facilitation, aimed at developing a community of learners. This needs to be

accompanied with high levels of teacher support and feedback, activities that foster peer collaboration and regular opportunities for technical skill development. An induction to the online learning environment early in the course is essential. Group-paced delivery, and peer support, could be fostered if intake into the program was restricted to the beginning of each semester. Synchronous activities, such as online chats and teleconferences should also be incorporated into the delivery blend. However, students need to be supported to develop their confidence and skills in order for these to be effective. Synchronous activities should also be timetabled to enable maximum flexibility.

A delivery plan, which includes timelines for the completion of units and suggested due dates for the submission of assessment may assist future students to plan their time and develop independent learning skills. This delivery plan needs to be published widely and regularly referred to by our institute's teachers, teacher coordinators and students. It may also benefit the students if our institute provides clear information about the roles of the institute's staff, the support that is available at the institutional level and to publicise and regularly promote this.

Teacher coordinators, and in turn, students, may benefit from an annual workshop where our institute's teachers and teacher coordinators explore their roles and develop a shared understanding of the course content and the course requirements.

Many of the findings of my research may be relevant to all learners in vocational education and training. However, future research that examines the effectiveness of implementing the recommendations of my research, as well as future research that examines the findings of my research in a range of Indigenous contexts, may help to develop best practice in the provision of flexible delivery for Aboriginal and Torres Strait Islander learners in vocational education and training.

Appendix A: Glossary of acronyms

AFLF: Australian Flexible Learning Framework
ANTA: Australian National Training Authority
EQ: Education Queensland
FDWP: Flexible Delivery Working Party
JCU: James Cook University
NCVER: National Council for Vocational Educational Research
NTCC: National TAFE Chief Executives' Committee
RTO: Registered Training Organisation
RATEP: Remote Area Teacher Education Program
TNQTAFE: Tropical North Queensland Technical and Further Education
VET: Vocational Education and Training

Appendix B: Interview questions (approximately 6 questions per interview):

Note: Based on recommendations from the Indigenous course advisory board, each question was preceded with an informal discussion about shared experiences. The Indigenous course advisory board felt that approach would be less direct, relax the participant and be more culturally appropriate.

1. Can you remember the first few weeks when you started the Diploma? Did you watch the videostreamed orientation, or take part in an orientation teleconference. In what ways did this orientation help you with your studies? How could this be improved?
2. I'm going to ask you some questions about things that make it difficult to study and things that help you to study. Let's start with things that make it easy for you to study. Now, I'd like you to tell me about the things that make it hard for you to study.
3. I'd like to find out what you think about the flexibility and timing of the course. Is it good to give you as much time as you need to complete each unit or would you prefer due dates and set time limits for each unit?
4. What motivates you to study and to keep going when things get difficult?
5. What type of support would make your studies easier?
6. I want you to think back to term two this year when you watched the video streamed sessions and when you participated in the Janison discussion forum. Can you tell me what you thought about learning this way?
7. I'm going to ask you what you think about all of the ways you have been engaged in learning this year. Let's start with the delivery media you liked the most and why? Okay, now let's talk about the delivery media you didn't like and why.
8. This question is very similar to the one I just asked you, but it is more focused on ways that you prefer to learn. What are some things that make it easy for you to learn? What are some things that make it hard for you to learn.
9. I'd like to find out the things you like about the assessment tasks and the things you don't like about the assessment tasks. Let's start with what you like about

the assessment tasks. Okay, now let's talk about what you don't like about the assessment tasks.

10. Is there any way we could improve the assessment tasks?

11. I'm going to ask you about your satisfaction, dissatisfaction with the Diploma course. Let's begin with things that satisfy you. Okay, could you now tell me about things that dissatisfy you?

12. What advice would you give a student who was thinking about starting the Diploma next year?

Appendix C: Case studies

Janine's case

Support

My research found that the support that Janine received from her teacher coordinator, our institute staff and peers had a significant impact on her success. Janine states:

If it wasn't for the support of (name of teacher coordinator) [...] and from all the staff in here, as well as the students egging you on to keep going, I would have ducked out many times [...] if it wasn't for that support from the entire team around me that I wouldn't have got through it at all.

Each support person had a different, but significant role in supporting Janine to complete her studies.

Janine's teacher coordinator played the role of encourager and supporter and had a critical role in Janine's completion of the Diploma of Education. Janine explained, '...the support and the encouragement and just being there, constantly being there, ready to help you out with anything.' This support had a significant impact on her decision to continue with her studies despite the obstacles she faced. Janine stated:

If it wasn't for the support I got I wouldn't have got through it [...] cause I had a bad, quite a few months, it was one thing after another for a long time, and I pulled away from studies for a while [...] because of what was going on at home, but I didn't wanna stop [...] if it wasn't for (name of teacher coordinator) at that time, I would've, if he hadn't have been so supportive, he could've just marked me off and said, no, you're gone, but he stuck by me [...] he knew I could get it done but it just wasn't at that time that I could do it.

Janine sought support from our institute's staff to negotiate deadlines for submission of assessment so she could deal with personal issues. However, Janine believed that the only person at our institute that could support her with these issues was the male Indigenous Student Support Officer. 'I was told ring your support person but there's no way I'm ringing him to tell him (deleted due to ethical issues)' she said. Janine was reluctant to approach the Indigenous student support officer as he was a male. She explained, 'You know (name) right, he's a guy. You don't wanna take your stories like that to a guy [...] I found it hard to say anything to him [...] so I just [...] made up something was happening [...] well I held back for a long time.' This misunderstanding about sources of support within our institute clearly prevented Janine from seeking prompt and effective student support.

Janine stated that the support person needed to be Indigenous, when dealing with Indigenous students from remote communities. 'Well, if non-Indigenous in towns, that's pretty much fine, but Indigenous in a remote community...' Janine said. However, when I suggested to Janine that students may not feel comfortable contacting me for support as I was not Indigenous, she replied, 'I would have felt comfortable ringing you, had I known that maybe... you were the person who, where, you know help me to deal with that and that way you could say to (name), look, I've heard her explanation, like why, can you fix this up now?'

There are several issues that arose from this data. Firstly, I may have been a suitable person to provide support for Janine because I was female and had developed a

positive relationship with her. However, this may not be the case with all students, particularly those in remote communities who have different needs. Secondly, Janine's comments indicate that she did not contact me as she wasn't aware that I could provide student support, other than academic. Finally, although support from our institute contributed to Janine's success it was not as effective as it could have been. Janine was not fully aware of the support available to her, and how to access appropriate support.

Blended delivery

Janine enjoyed participating in all modes of delivery, especially those that involved interaction, action and real life contexts. Janine stated, '...the whole delivery of this program is good how they have got this and that you know, all these different things coming out [...] not just one boring thing all of the time.' She also said, 'I learnt a lot through those books [...] but especially through the tasks where you had hands on.'

Janine did not participate in a maths cluster workshop as these were not delivered during the pilot year. However, Janine commented that her favourite delivery modes were, '...the residential [...] the field trip.' She enjoyed the hands on activities at the residential the most, 'because you're doing things' she explained. She also stated, 'I had no clue how to make up a game until we sat there and played this simple game okay and all those big words for this little game.' Janine enjoyed the field trip for the same reasons as the residential: she participated in concrete, hands on learning experiences. '... it wasn't until we actually went on the field trip that [...] it all came together like a big puzzle and it really made sense [...] and to see, to see it in action, you know, observe all those things that you couldn't just get on paper.' explained Janine.

Janine also found the step by step explanations and content in the learning guides effective and commented, '...it was good 'cause it was right there and it took you through step by step.' She also found the content in the learning guides repetitive. However, she saw this as being conducive to learning and explained:

I thought it was a bit repetitive, but at the same time I know how important that is, that repetition is in learning. That's one thing I've learnt, doing those assessment tasks and doing those pracs is that those kids will not get it through their head until they've heard it two or three times and it's the same with us.

Janine enjoyed the online component of the course as she was confident with the technology and owned a laptop. She also liked the interactivity of the discussion forum and the convenience of learning online. She commented, 'That was good for me 'cause I'm a computer freak [...] and it was a lot easier cause at night my brain functions a lot better.'

Although Janine felt confident and competent using the technology, she expressed concern about other students' abilities. She suggested that students' technological skills and understanding of the Janison learning management system could be developed at residential and stated:

I think maybe with the online discussion and the streaming, maybe that should be put into a residential as well, the first part. Just to show people how to go through it bit by bit, step by step, because I never had a problem with it, but I know other people who did [...] if

you're going to be doing something like an online discussion they're really gonna have to know exactly what to press, where to press it and a booklet to go with it.

Janine also noted, '...It would be good to get on and actually have a proper chat because that whole typing thing and the computer thing scares a lot of people.' This suggests that not all students are as confident with technology as Janine.

Janine enjoyed participating in online discussion and stated, 'I love the discussion board.' Even so, posting comments in the discussion forum was initially daunting as Janine wasn't confident with her responses. She said, 'Even though you said to us no answers are wrong, you still feel like you might be wrong.' Nevertheless, she saw the benefits of sharing ideas and learning from peers in an online environment and commented:

It made you more aware of what they were capable of too. Not only what you're, you know how you go yourself, and sometimes like I think the people with slower understanding of a question, it gives them a basic idea of where to go to and how to answer that question without going too far off and giving not enough information, yeah it was really good for that, looking at other people's answers.

My findings suggest that there were several issues that affected Janine's successful participation in the online component of the course. Firstly, Janine was competent with the technology and had a laptop at home. However, this alone did not necessitate success. Confidence contributing ideas and participating in an online environment was also important.

Flexibility

The issues that Janine identified when discussing flexibility included the importance of flexible options for participation and the submission of assessment.

When asked about due dates for the submission of assessment, Janine commented, 'I liked it (having due dates) cause it gave you boundaries. You knew when you had to stop, when you had to have it in by.' However, there were times when personal, family and cultural responsibilities made it difficult for Janine to participate in the course. She explained:

In Aboriginal and Torres Strait Islander communities, things...like that (social issues) will happen, will definitely happen. Not only that, I mean you've got like deaths that affect like a whole community, not just one family and other things go on [...] I was totally prepared but at the same time so many things happened that I had no control over.

Being able to negotiate timelines for the submission of assessment was essential for Janine so that she could balance her personal and cultural obligations with her study. She commented:

A lot of things happened and I couldn't get the work in on time but I always made sure I tried to call and I was given extensions which helped a lot [...] if I didn't get it in it wasn't the end but I knew the extension could come. I didn't want to be cut off completely just because that's the cut off date but that extra bit of time helps.

This suggests that negotiating flexible options for participation had a significant impact on Janine's success and assisted her to successfully complete her studies.

Lorraine's case

Support

During her Diploma studies Lorraine was the only Diploma of Education student studying at her site and therefore, worked independently most of the time. Lorraine, however, approached her teacher coordinator when she needed academic advice. She explained:

Well I started off myself, on my own sort of thing and well I found it, it was alright the learning guides like, I did it myself more or less and any questions that I needed to ask I'd ask (name of teacher coordinator) [...] just give me some ideas and you know I still had to sit down and think about it myself.

Lorraine also relied on her teacher coordinator for advice about organisational matters. 'I referred to (name of teacher coordinator) when I needed to know what was happening next.' she said.

Although students at other levels of the course provided Lorraine with support, this was minimal. Lorraine commented, '...peers, they were supportive but they were doing their own thing and they just gave suggestions.' Lorraine would have liked more peer support and explained, 'It would be good for students who are on their own to be studying with someone cause when I first came into the program everybody sort of paired off, they had somebody to work with, whereas I started off myself.'

Peer support during the field trip and maths cluster workshop was also important for Lorraine. '...my cousin and I, we got separated on this last field trip [...] she sort of felt like she didn't get that support while she was away on that field trip whereas if I was there I could've, you know [...] they shouldn't have separated us [...] she had a hard time' she said. Lorraine also talked about this from a cultural perspective and stated, '...some cultures, like I know here, in (name of community), one person doesn't go by themselves we always look for someone to come with us [...] It's just, in, in us if we have that person with us, we feel a bit better...'

Although Lorraine appeared to adapt to working independently, with the support of her teacher coordinator and occasionally, the program's university students, it appears that it would have been beneficial for Lorraine if she was studying with a cohort of Diploma level students. Furthermore, this data suggests that failure to consider the implications of peer support during away from base activities can impact on students' experiences and in turn, their learning.

Lorraine was relaxed about contacting our institute's teachers who were approachable and stated, 'I found that (name of teacher) were very supportive [...] made it clear, that whenever we need help and things like that [...] and that does make you feel like more comfortable about asking for help if you need it...' However, Lorraine preferred to seek support from her teacher coordinator. She rarely approached our institute's staff and if she did, it was during residential and only if her teacher coordinator was unable to assist her. '...teachers were good [...] when I needed support when I was in for the residential. If I had questions, major questions that (name of teacher coordinator) couldn't answer.'

These comments suggest that Lorraine received adequate support from her teacher coordinator. Furthermore, even though Lorraine was confident approaching our institute's staff who made themselves approachable, she preferred the face to face support provided by her teacher coordinator.

Lorraine was not aware of the support provided by the Indigenous student support officer. '...and I don't even know what student support officer is...' she said. This comment could indicate that either student support was not a priority for Lorraine or she did not seek student support because she was not aware of the services the student support officer could provide.

Blended delivery

Lorraine enjoyed delivery modes that provided her with clear expectations and guidelines and assisted her to complete her assessment in a timely manner. Although she enjoyed participating in delivery modes that facilitated interaction with peers, she also liked delivery modes that enabled her to choose where and when she could participate.

Although Lorraine found the level of English language in the learning guides appropriate '... I didn't find it very hard [...] I understood it.' she thought the learning guides were repetitive. This created some difficulties for her. '...I found it too repetitive. I got confused too a couple of times. I thought I'd addressed that, but then again I had to do it again.' she said.

Completing assessment was a priority for Lorraine, as demonstrated by these comments about the residential at our institute, 'I liked the residential because um, I found that we could do more there. We covered more there than what we could do' said Lorraine. She also needed clear expectations regarding assessment and felt that video streams served this purpose effectively. '...but see video streaming I already knew what needs to be done [...] as long as I get the assessment done, so I knew what I needed to do with the assessment [...] the video streaming did help a lot...' she commented.

Lorraine also enjoyed participating in a virtual learning community and stated that her favourite delivery modes were, 'streaming and online discussion...' She explained, '...I liked the video streaming. At least we got some ideas and feedback from the other students and it sort of supported us too [...] it was just like being in the classroom but not seeing any faces [...] I knew where the other students were at with their work.'

However, the discussion forum was not always a source of inspiration for Lorraine, who commented:

...I don't always look at it if I didn't need to, but if I'm stuck you know and (name of teacher coordinator) is busy or something, that's when I'll refer to other people's work and I think oh, why are they putting that in there, you know? I've got some ideas of my own and I'll think, this is what I should've done but sometimes I think it's not relevant too, some things that they do put up [...] so I don't really make it a habit of looking at other people's work [...] but it's good to see other people, how they're progressing, what's there, what's going on in their little minds.

Additionally, Lorraine cautioned about risk taking in such a forum and stated, 'Some people would think, like I'm not gonna ask that question because it's embarrassing you

know cause you've gotta know that much about it all if you're gonna ask questions you've gotta know.' These comments suggest that for Lorraine, risk taking, and a feeling of shame, can be an impediment to participation in the online environment.

A variety of strategies assisted Lorraine to develop computer skills and competence using the Janison learning management system. She stated, 'I didn't know much about computers, like I know computers before [...] but like the residential helps a lot, when you did that computer software with (teacher). It helped a lot, but I more or less found my own way around, my peers would help me out and then I could pick it up from them.' The induction at residential to the Janison learning management system, support from peers and strategies such as trial and error all assisted Lorraine to participate in the online component of the course when she returned to her site.

Flexibility

Lorraine also demonstrated a preference for delivery modes that provided her with flexible options. As she had other responsibilities she needed to be able to manage her time efficiently. Being able to make decisions about where and when to study was important for her. '...video streaming, I could always come into the site and look at it anytime, whereas a teleconference, you have to be there at that time [...] cause I was working down at the school and things like that...but at least it gave me the opportunity to do that work and to know where I am at.'

Furthermore, Lorraine was able to effectively manage her workload by using a combination of video streaming and learning guides. She explained:

...I referred to my learning guide when I was at home working [...] but when I'm in there at the training centre I'd just rather get straight into my work and not just sit there and read it [...] at least the learning guide I can take it home and read it and have some idea of what's expected and come in and do whatever I have to do [...] well found it easy for me cause see, I'm a mother and I knew, well I've got a time limit sort of thing [...] when I leave from here you've got to go cook and whatever at night that's when I'll sit there and I'll take home, you know, look at my learning guide so that's handy.

Despite the repetitive nature of the learning guides, asynchronous delivery modes such as learning guides and video streaming were effective delivery modes as they were convenient and accessible.

The timing of the submission of assessment was also a factor that impacted on Lorraine. She reported that the absence of guidelines made it difficult for her to complete her assessment. Lorraine explained:

...I think there should be a rough time which to put it in not a deadline, but a time limit to put it in because I sort of was going through, like how I work, I was doing bits here and there and that and I found like it was overlapping and I wanted to get it over and done with [...] that's why one time I didn't put anything in, I just had them all at home and it just all come in the one hit sort of thing.

More direction from our institute's teachers would have also helped Lorraine to plan her workload. '...well that's where I think the teleconference at the beginning of each (unit) might be a good idea,' Lorraine said.

Lorraine compared the flexibility of our program with the rigidity of James Cook University. Lorraine did not advocate the implementation of inflexible due dates and wanted our program remain '...still flexible'. However, she felt that a more structured approach with clear signposts regarding submission of assessment would help her to prepare her to develop her organizational skills and prepare her for university studies. She stated:

... well it's a big difference, like I've noticed TAFE is sort of more flexible, whereas when I go to JCU after this [...] I'm going to have to put myself back into a routine of this has got to be done by that time [...] it would be good if the Diploma students, if you could get a bit of that in there a bit of organization, a routine to sort of build them towards that level of [...] cause I know a lot of people they think it's a big thing you know when you start university studies.

These comments raise several important issues about flexibility. Firstly, Lorraine needed some guidelines to help her plan her studies and to progress at a consistent pace. Furthermore, suggested timelines for the submission of assessment would have assisted Lorraine to manage her time effectively. This would also help to prepare her for university studies.

Karen's case

Support

Karen received support from a variety of sources during her studies. In particular, she noted the support she received from her teacher coordinator, our institute's course writers and peers.

Karen stated that her teacher coordinator was '... the driving force, she kept us on track.' She also advised Diploma of Education students, '...just be open with your teacher coordinator. Don't treat them as your teacher coordinator. They're your confidante too. Just be open and honest with them and they'll do everything to help you with your studies especially in the difficulties.' These comments suggest that Karen had a positive relationship with her teacher coordinator and that her teacher coordinator played a significant role in her success.

Although Karen valued the guidance and support she received from her teacher coordinator, she did not have confidence in her teacher coordinator's academic advice. '...the teacher coordinators aren't able always to clarify things for you, to a certain standard because they think they can only tell you so much and that's it...' said Karen. Therefore, it was not surprising that when asked if she received enough teaching from her teacher coordinator, Karen said:

No I don't think so because it's like you only go to the teacher coordinators when we strike a problem and because, I don't know, the teacher coordinators seem to just go through and read the stuff with you and tell you, you know from what the instructions are in the units, what's required of you and you can read that yourself you know, you need teaching.

These comments suggest that Karen viewed her teacher coordinator as a tutor and support person rather than a teacher. Furthermore, as Karen studied the program during the pilot year of delivery (2003) her teacher coordinator may have been unclear about the course requirements.

As Karen was not satisfied with the responses she received from her teacher coordinator, she sought clarification from the institute's course writers.

She explained, 'Don't always rely on what they (teacher coordinator) say, what advice they give you. Ring your course writers, the ones who work with the units and know exactly what they are expecting. That way you're in no doubt what you're supposed to write.'

It is clear from Karen's comments that the institute's writers played a significant role in her success. Karen valued their encouragement and advice regarding expectations, but more importantly, she was able to discuss ideas and concepts with them. '...you know, I've got nothing but praise for the program's writers [...] you come to that brick wall and you say help, and they would give you an alternative [...] idea to think about, a different context that you could draw on. It just got you over that hurdle, that thing that was baulking you.' she said. This suggests that effective support for Karen included the provision of opportunities where she could engage in academic discourse to develop her understanding of concepts. Karen's comments regarding support indicate that she found interaction and learning through discussion to be an effective way to learn.

For Karen, this communication between her and our institute was two way. Although she was happy to contact them, she stated, '...they should open the door first and say come in any time you want to'. She also stated that it was important that our institute take some initiative when communicating with her. '...I think that TAFE needs to interact with the students as well because like I said you know I mean sometimes you have a difference of opinion with the teacher coordinator...'

These comments highlight the difficulties that can occur when students, teacher coordinators and even our institute's staff have different perceptions, or are unclear of their roles. These difficulties were compounded as, in Karen's case, the teacher coordinator did not have a clear understanding of the course requirements. As Karen was confident and she felt that the writers were encouraging and approachable, she was able to contact them for academic advice, and her need for academic discourse was met. However, not all students may be confident enough to contact our institute for support.

Peer support was also important for Karen. Once again, Karen viewed support from an academic perspective. When asked if she received support she stated, '...no, I didn't have any tutoring. I guess it was just maybe feedback from other students. We would discuss, I think we discussed the assignments and stuff and with the teacher coordinator.' Peer support assisted Karen when she was struggling with course requirements. When asked how she got through things when they were hard she replied, '...I guess [...] maybe the other students. Maybe they were having the same problem in some way.' This suggests that Karen viewed academic support from a purely academic perspective.

Blended delivery

Karen stated from the beginning of the interview, 'I was pretty confident from the beginning (of schooling) because I had older siblings, English being our first language we were pretty literate from a very early age.' Karen also enjoyed the process of learning. Despite Karen's confidence and enthusiasm for learning she initially found the self-directed learning that the learning guides facilitate, to be foreign. She was not used to being presented with the information needed to complete the assessment or having to source information. She described her experience using the learning guides in this way:

I had to get used to the ideas that a lot of the learning was actually depending on your own initiative and going out and sourcing information [...] that's um, different learning because at school it's verbal stuff...plus the exercises [...] you actually produce the answers to things, whereas the answers to what was in the books came from a book. That was hard to get used to.

These issues were further compounded as Karen felt that learning guides and assessment tasks were repetitive. She also noted a lack of cohesiveness in the content presented in different learning guides and found this frustrating.

Karen explained:

I suppose at that stage too it wasn't clear that [...] because we didn't know that we were going to be made to do this thing over and over again and we were just really pissed off at the thought that [...] why do we have to do it twice?

Karen was not very enthusiastic about online learning. Although her comments reflect her experiences as a James Cook University Bachelor of Education student, they are relevant to my research as they demonstrate her perception of online learning in the context of the program. She states, '...at first it was really hard to get used to [...] interacting with the stuff online, especially the discussion boards and stuff like that and having to actually [...] respond to certain little exercises online [...] very frustrating because it got really time consuming.'

Karen felt that the asynchronous virtual discussions were not as rewarding as the synchronous teleconferences and explained, 'Once again you're responding to a particular thing but there's no individual feedback on the response [...] I guess we do get that feedback in teleconferences because those questions (are) brought up and they are discussed but the actual discussion board...you wonder why the discussion board is really there.' One reason for Karen's dissatisfaction could be the lack of instant feedback and interaction in the discussion forum.

However, when asked if teleconferencing would be an option for increasing interaction amongst students in different sites she replied:

Maybe teleconferencing but I'm not sure to actually, probably get that discussion going but see that's the nature of teleconferences too probably at that level [...] I'd say that it wasn't (productive) because nobody wants, is too frightened to speak up and say something that might be wrong or whatever. Who cares? Because if you're wrong you get to find out what the right thing is.

These comments indicate that Karen valued peer discussion as a tool for learning. Even though Karen was a confident participant, she viewed other students' reluctance to take risks, and participate in the teleconference, as a hindrance to effective learning.

Karen did not endorse the residential very enthusiastically either. 'I don't think we were any wiser having gone to the residential.' she said. This is surprising given her preference for articulating and verbalising ideas and interacting with others to learn. One explanation for this could be that she felt that she was not

'any wiser' after the residential. Perhaps she felt that she did not get a lot out of the residential.

On the other hand, Karen found the field trip to be an effective learning experience and commented, '...I think it's essential to do that because you have to meet the people...the people are what it's all about and the situation that they are in the communities, to get a real understanding'. These comments about the field trip suggest that she prefers to learn in real life contexts.

Flexibility

When asked about the best during her Diploma of Education studies, Karen stated, '...I guess the best thing was that there was no real pressure. At uni the pressure's on to put out your tasks and that on time [...] you run into deadlines whereas Diploma you weren't aware of those deadlines.'

However, it is ironic that despite lack of pressure being the best thing, Karen felt that deadlines for the submission of assessment would have benefited her during her Diploma of Education studies. She explained this apparent contradiction:

...that was really frustrating [...] because it was very vague [...] you sort of had no idea how you were faring and with the units whether you were behind schedule or in front or whatever. It would've been good to know...we were going blind. It was like the end of the road [...] and by then, the end of November and there was still all these bloody learning guides there and I thought oh my god.

Karen also felt that due dates would help to motivate her to complete assessment, as well as help her to develop her time management skills. She commented:

It does, I think it sort of gets you organised to start planning things, structuring things, learning to structure your work. It's good practice [...] you've got to really plan what you have to do in all the units. You know it's due then so I have to do this, this and this and then put time aside for it and then there's the next bit that you can go on with, that's due by a certain date.

Karen felt that the purpose of due dates was to develop organisational skills. Providing clear guidelines would help her to understand the expectations and timelines in which to complete assessment, and help her to set her own goals.

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