

Indigenous training and development project: Using technology innovatively for low literacy learners

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Introduction

Research has shown that for many Indigenous learners mainstream education systems do not use teaching processes that appeal to their strengths. The mainstream approach to teaching vocational courses often relies on English language text based resources. E-learning has created opportunities for training providers and students to overcome some of the barriers to education by adopting flexible approaches to assessment and training.

This paper demonstrates an example of innovative e-learning tools that have been developed by a VET practitioner at Charles Darwin University, working in the area of Early Child Care. It shows how video technology can be used as part of a learning process among a group of Indigenous people, to both engage them as learners and to gather evidence for assessment purposes. A discussion of the advantages and the challenges that have been encountered while implementing the first stage of this training project are identified in this paper.

Project Context

The Indigenous Training and Development Project is funded for approximately 18 months as part of the Red Cross (Northern Territory) Communities for Children Program. The Communities for Children initiative ultimately seeks to improve the outcomes of children between zero to five years and their families. The project is available to students who live or intend to work in either Palmerston or the Tiwi Islands, located in the Northern Territory of Australia. Palmerston, is a satellite city located 21km south of Darwin. It is one of Australia's fastest growing areas, with a population primarily made up of families and has an average age of 28. The Tiwi Islands are 80kms north of Darwin in the Arafura Sea and consists of three main communities, Nguiu or Bathurst Island, and Pirlangimpi and Milikapiti or Melville Island.

This project aims to increase the numbers of young Indigenous people holding a Certificate III in Children's Services; to increase their employment opportunities within the Children's Services industry and to subsequently create Indigenous-appropriate services for children. In an effort to make the qualification more accessible to Indigenous learners the project has put in place a number of measures to support the students through mentoring, placements, transport, childcare to the student's young children and consideration of the learning environment.

The project is run by the Program developer whom is the Course Coordinator, a Palmerston Indigenous Support Worker and a Tiwi Islands Indigenous Support Worker. The Palmerston course is delivered as a three hour workshop held one morning a week over the duration of the semester. Each week the students are collected by the Indigenous Project Support Worker who travels around Palmerston in a hired mini bus. The course coordinator provides the components of the E-tool: four lap tops, six cameras, project and projector screen, and any specific tools required for the topic of the workshop. Morning tea is also provided to give the students an opportunity to learn about nutrition, hygiene and preparation -a unit in the course- along with the social aspect of team building. The course coordinator conducts the workshops, and mentors the students with the help of the Indigenous Project Support Worker. The Tiwi Islands location of the project has comprised of three full day workshops held over three months with two students enrolling in the Certificate.

Evaluation Processes

To give an overview of the project progress and to demonstrate the validity of the outcomes an explanation of the evaluation process has been given. The Indigenous Training and Development Project is subject to an evaluation process being conducted as part of the Red Cross (Northern Territory) Communities for Children Program. The

evaluation aims to build an evidence base about outcomes related to Communities for Children projects based on Program Logic assumptions (W.K. Kellogg Foundation 2004) using multiple methods—quantitative and qualitative. A local evaluator provides support and engages with Community Partners in a limited way, providing support with the development of evaluation tools, professional development and some reflective practice processes. This evaluation is reliant on a participatory approach (Suarez-Balcazar and Harper 2003) where the Community Partner is responsible for setting the agenda for the evaluation and gathering much of the data (Greene 2006). This reliance on Community Partner engagement is not without its pitfalls (Hatry and Newcomer 2004; Guenther 2008) and could be seen as ‘empowerment under the guise of evaluation’ (Stufflebeam and Shinkfield 2007:154) but it does have the potential to build research and evaluation capacity among stakeholders, not just the researcher/evaluator (Fawcett et al. 2003). The evaluation is ongoing and this paper is an attempt to document some of the research findings from critically reflecting on the processes used in the implementation of the Project.

Low Literacy Education Tool

The students themselves named the project DIDG Childcare, in reference to the digital nature of the tool. DIDG Childcare is a complete resource that consists of a database containing digital film clips and written explanations demonstrating the information and requirements of the course units, along with examples for the given assessments. Childcare providers and other early childhood professionals in Darwin and the Tiwi Islands have conducted videoed interviews and in-field demonstrations regarding issues which match the performance criteria of the course competencies. These clips are downloaded onto four laptops that are available to the students. The interviews and demonstrations are available for individuals or for class groups, using a portable projector and projector screen. Students also have access to six small touch screen digital cameras which allow them to record themselves for assessment, as a means of providing evidence of their competency and achievements. Essentially DIDG Childcare

is an electronic tool box for students, which covers all aspects of the teaching and assessment of the Certificate III in Children's services.

The students obtain their knowledge and understanding of the performance criteria through the video and audio clips along with facilitated group discussions held in the weekly workshops. Once the student feels as though they are ready to be assessed they have the option of recording themselves as an audio explanation or giving an interview on the given performance criteria. The audio or video clips are then imported into the individual student's account on the DIDG childcare database. The Course Coordinator then reviews the recorded evidence and grades their mark which is stored in the student's profile.

Advantages of the Program

The program DIDG Childcare is currently based as software installed on laptops with no need to access the internet, although there is the option of expanding the project further by making it available to students online. Yet keeping the course compounded within a program on a computer is one of the appealing and functional aspects, as the World Wide Web is yet to reach many rural and remote Aboriginal communities. Having the program contained within a laptop makes accessing DIDG Childcare as simple as plugging into a power outlet.

The electronic nature of the program also allows for the video clips and other unit information to be maintained and kept up to date to ensure the course contains current best practice. In addition to keeping the content current the video clips in DIDG Childcare can also be culturally appropriate to Indigenous contexts. A further benefit of the video technology is the potential for the course to be appropriate to the context of the learners by filming interviews and demonstrations of competencies with relevant members of each student's own community. It is this contextual relevance which adds

depth to both the teaching and the learning experience. The Indigenous students respond better to film clips showing Indigenous interviewees or demonstrators and to working as a group to discuss the content of the clips, including discussions about their own cultural and community context. The teacher becomes the facilitator, thus reducing the authority of knowledge and opening up ownership of knowledge to the group as a whole (Byrnes, 1993).

The digital video clips provide a means to combat absenteeism and increase potential for academic success as it provides a consistency to the teaching and learning process. No student misses out because they have access to the video clips when and as often as they need them and they can make the decision about when they are ready to be assessed. This presents a joint method of conducting the workshops as on the one hand the students work best as a group, on the other hand the digital medium allows for personalised tracking through each performance criteria. The use of one on one mentoring has been employed in this project to keep the group as a whole; moving together through the units of the course.

As the implementation of electronic data bases are for the most part new to VET education within the childcare industry, there are features of the program that require improvements. The structure of the data base has many layers, which can make it difficult for students to navigate. As many of the students have had limited exposure to computer programs, it takes time to explain the process to the students, which requires one on one demonstration of the steps in using the electronic program. However, some of the students that already have some computer skills feel empowered as they are able to help the other students in the group. Though some students initially find using the laptops difficult, research into the use of computer technology by Indigenous students in the classroom has found that the computer appeals to the Indigenous learning styles; by allowing control of their own learning (Fryer, 1987; Steen, 1997). The program DIDG Childcare is a patient medium as students are able to work at their own pace; the

design enables them to take as much time as necessary for them to consolidate their understanding of the unit content by watching and re-watching clips and listening to audio as often as needed.

Benefits of the Project

The National Aboriginal Education Committee has identified the need to recognise and build upon the distinctive cultural heritage of Aboriginal students whether they come from urban, rural or traditional orientated families (Hughes, 1997). The project is actively seeking to meet this need as the process has largely involved using video technology to collect a variety of experts and qualified childcare industry workers from a mixture of cultures, with an emphasis on Indigenous interviewees from both urban and remote areas. Further benefits of the Indigenous learners acquiring a qualification within the Childcare industry are the opportunities that are being opened up to them, which create awareness of other Indigenous or child related issues that they may not have had previous knowledge of. One instance of extended learning opportunities is the 'We Grow Them Up Learning Festival' conference -held in Darwin- that the students attended as part of their course. The conferences covered a variety of Indigenous issues ranging from the effects of alcohol on the unborn infant to nutrition for young children.

Acquisition and retention of students has proven to be difficult as many of the students tend to be reluctant to access post compulsory studies due to a negative perception of formal education. By drawing on the unique characteristic of Indigenous culture that places a high value on family and community, this project provides Indigenous students with a positive learning experience and the potential to create educational and life opportunities within and outside their own communities. To this end, the Indigenous Project Support Workers, network within the Tiwi Islands and Palmerston community to source out and encourage the Indigenous people to attend the workshops.

The environment in which the weekly workshops are held for the course, also take into account the Indigenous culture, as there is evidence that conducting teaching in familiar places helps to optimise learning for the students (Byrnes, 1993). The course coordinator seeks to provide a venue that has a relaxed environment within a common location to the attending students. A minivan for future cohorts is being considered to further increase the sustainability of the project. Through using a minivan the issue of transport for the students can be resolved. In addition to providing a permanent storage place for the resources required for the course.

The mode of delivering the project to the students has also taken into account the cultural obligations and codes of the Indigenous learners that may act as barriers to education. The course has been conducted as a workshop in a central location one morning a week for the duration of the semester to limit the demands of time. Once more, the flexible nature of the project opens up the potential for the course to become available to Indigenous people living in rural and remote areas of Australia by delivering the Certificate as a block intensive to those students that only travel to town for a short period of time. A further possibility may be to explore the potential of the Certificate to be delivery as block intensives held in remote communities. This would allow educators to travel to communities for one or two weeks at a time over a period of twelve months to deliver the course.

Progress

Feedback

At the time of completing this paper the project was in its first semester of delivery. The students have provided positive feedback about the program and the method of delivery. Observations made by the Indigenous Project Support Worker have noted a change in the individual students on a personal level. Being enrolled in the Certificate and experiencing success through completing a number of units, the students are

building self esteem self respect and confidence. They have also begun to use professional language and seem to be deepening their understanding about what they're doing in the course through reflecting on the information they're learning. An improvement has also been seen in the way the women care for their own children - who also attend the weekly workshops. This indirect outcome of the project has seen the students apply the knowledge they are gaining through their acquisition of the Certificate III in Children's Services to benefit their own parenting skills. An example of this is in a play group conducted during a workshop at the end of semester. A number of the students were observed facilitating the play of their children and commenting on what they were learning about their child's development through observation. The Indigenous Support Worker also noted that the students she has a personal affiliation with have adopted some of the nappy changing protocols and nutritional recommendations with their own children.

Current Outcomes

Unfortunately the overall outcome of the students is unable to be given at this point in the project. However, the current progress of the Palmerston students can be summarised. In a cohort of fifteen students, two students have begun part and full time work; an additional three are currently engaged in traineeships in the industry, and now complete the competencies as part of workplace assessments - these are also filmed and uploaded as evidence of their competency within the units. Five students have unofficially withdrawn from the project as they have stopped attending the weekly workshops. Overall, the ten remaining students have all successfully achieved nine units of the fourteen comprising the Certificate III in Children's Services. They have demonstrated their competency through uploading digital video clips of themselves completing the given assessments either by giving filmed demonstrations or interviews.

The Tiwi Island location of the project is yet to begin regular workshops due to a lack of interest on the part of the students and the time and travel constraints of the project delivers limited progress has been made with the implementation of the program.

Currently the Bachelor Institute of Indigenous Training and Education (BIITE) have been conducting regular visits to the Island's Childcare centres as a part of their training in the Certificate III in Children's Services. As the project is limited due to its number of staff, there is a potential for the BIITE educators to be trained in the delivery and use of the program, DIDG Childcare, as a means of testing the effectiveness of the e-tool with the Certificate students in the Tiwi Islands.

Sustainability

A particular characteristic of the low literacy learner is the level of support and mentoring required for them to achieve success. There have been a number of challenges presented due to the level of support required and the lack of teacher availability. At present, the project is delivered by a Course Coordinator, who developed the program and a Palmerston and Tiwi Islands Indigenous Project Support Worker. The Palmerston Project Support Worker is currently undergoing further study in the Certificate IV in Workplace Assessment and the Diploma in Children's Services, and will therefore be qualified to teach the Certificate independently the possibility exists in the near future for the project to continue with a wholly Indigenous focus. Further effort is being made to make the project sustainable and increase Indigenous ownership by utilising the current students as mentors for the next student body.

Flyers providing information about the course and the opportunities it provides are being developed to promote the second stage of the project and recruit future students. In addition, it is hoped that word of mouth – a typical cultural tool for sharing information across Indigenous communities in the Northern Territory - about the positive experiences and outcomes of students who have already participated in the course will play a big role in recruiting and encouraging other Indigenous people to enrol in the Certificate.

Employment opportunities

Most Childcare Centres have policies which address cultural inclusion and appropriateness. Having Indigenous people working at the centres will give voice to

such policies. Where cultural knowledge and appropriate practice is embedded into the daily provision of care and play experiences everybody benefits.

Some of the Indigenous students that are interested in doing the course are not fluent in English. In an effort to make the course accessible and culturally appropriate to these students one of the previous students that have obtained their Certificate III in Children's Services will be employed to translate and record video clips for the course units in their home language. The current students who agreed to take on the role of mentoring will also be employed by the project.

The cohort consists mostly of young single mothers and it may be due to their role as a mother that they initially showed interest in undertaking the Certificate. The outcome of the project gives them a career goal and prospects of employment within the childcare industry. The course is a means of getting a qualification while they have young children, which they may then choose to go onto work in the industry when their children are older.

Conclusion

Ultimately the overall outcome of the project aims to have developed a complete electronic learning and assessment tool (DIDG Childcare) consisting of digital video and audio clips containing interviews and demonstrations of the relevant unit information and assessments. In addition it will create a framework for the best method of delivering the course to low literacy Indigenous learners in an approach that best suits the cultural needs of students.

The difference between Indigenous and non-Indigenous learning styles have been illuminated by research as have the chronic problems of low literacy levels and low levels of Indigenous Tertiary enrolment and retention. Departments of education and tertiary institutions in Australia and across the world are continually attempting to solve these problems and enable Indigenous learner's success in mainstream education. There is no single curriculum let alone perfect teaching methods that are the key. At

present this means that the greatest success often occurs when individual teachers take it upon themselves to develop more appropriate methods of teaching to bridge the gap. This paper describes how employment of digital media to teaching techniques in a VET Certificate III in Children's Services course has appealed to the learning strengths of a group of young Indigenous students with low literacy. In addition, implementing digital media in culturally appropriate ways to these Indigenous learners will potentially see these students succeed in their study. Indeed, it is hoped that in the long term the duality of cultural appropriateness and digital media will see an improvement in access to VET education of many more Indigenous people.

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