

New Practices in Flexible Learning

Connecting the Dots: breaking down the barriers to participation

Reflection report

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1 Introduction

This report provides a reflection of the *Connecting the Dots: breaking down the barriers to participation* project from conception to completion. It reflects and makes observations on how the project was executed and whether it achieved the desired outcomes. It highlights key success areas as well lessons learnt that can be taken and applied to future projects of this nature.

1.1 *Parameters for understanding this reflection*

The following factors need to be observed when considering this reflection.

1. The main tutor data has been drawn from the focus groups, synchronous chats and asynchronous forums rather than journals, logs or tutor surveys.
2. Not all learners involved in the podcasting project completed surveys, thus the data relating to this is less than expected.
3. The absence of the above data has meant a greater reliance on the personal reflections of the project coordinator, greater than was originally intended, recorded several times a week over the life of the project.
4. The principal sources of data have been:
 - a. the two focus groups, one of which was attended personally, the other was watched as a video
 - b. the online asynchronous forums where over 300 entries were made over the life of the project
 - c. the online synchronous chats of which there were ten, and
 - d. case study documents.

2 Five principle questions

At the mid-project review, New Practices in Flexible Learning posed five key questions to be addressed by the *Connecting the Dots: breaking down the barriers to participation* project. These questions were as follows:

1. What does podcasting offer as an alternative option within VET teaching and learning?
2. How does podcasting offer an alternative solution?
3. What is the relevance to learning? Why would you do this over other options?
4. What are the issues and impact of implementing podcasting within VET for learners, practitioners and organisations?
5. What recommendations for the future implementation of podcasting can be made?

This section will address each of these questions from the point of view of what was learnt from the project.

2.1 *What does podcasting offer as an alternative option within VET teaching and learning?*

As detailed by tutors in the focus groups, there was overwhelming agreement that podcasting can provide a range of benefits to both teachers and learners. In sum, podcasting provides seven key benefits that collectively position the technology as an effective alternative to other teaching/learning modalities currently deployed. It offers:

- **Syndication** – Podcasting allows both learners and teachers the ability to subscribe to topic-specific content that can be regularly accessed and updated with minimal effort. Learners, particularly in the VET and the adult education sectors, lead extremely hectic and crowded lives, juggling their studies amongst a range of other family and personal commitments. The fact that content can be automatically delivered to the learner has the potential to considerably lessen their workload.
- **Automation** – The software that manages the downloaded podcasts can also be configured to allow the automatic transfer of podcasts files to a digital audio player. This further lessens the potential workload for both practitioners and learners and enables both groups the option of spending more time on education and less time in administration and delivery.
- **Authenticity** – Most practitioners agreed the podcasting project opened up a new way of communicating, particularly for rural, regional and remote learners. Learners found the modality more personal than email or other written forms, primarily because they could hear the voice of the members of staff involved.
- **Portability** – Given that learning, teaching and assessment takes place under a range of circumstances, podcasting allows for greater convenience. Podcasts can be accessed via a multitude of devices and are available around the clock. Its easy accessibility means that most learners, in most locales, can benefit from this technology.

- **Resource range** - Podcasting provides access to an increasingly extensive range of resources in almost every learning domain. Some examples are:
 - *ITConversations* for ICT materials – <http://www.itconversations.com>
 - *Podcast Directory* for educators – <http://www.ipodcast.org.uk/>
 - *Odeo* for an across-the-board catalogue – <http://www.odeo.com>
- **Learning Styles** – Podcasting allows for greater accommodation of learners and teachers with special needs and/or learners with particular learning styles or profiles. Podcasting allows for further diversification of the way that learners receive information, thus catering for different learning styles and learning situations.

Of particular note is the usefulness of podcasting to learners who favour an aural/kinaesthetic learning style or profile. These learners commonly understand material much better when they listen (in the case of aural learners) or when they are moving around (in the case of kinaesthetic learners). Clearly, these two preferences are readily catered for by podcasting content that is both audio and portable.

Additionally, learners with special needs (such as those with literacy or learning difficulties) or learners who fall into one of the target groups identified above are also benefited by the inclusion of podcasting as one of the modalities that practitioners can use.

- **Flexibility** – The technology allows learning at anytime, anywhere. Remote, rural and international learners are a sector of growing opportunity for the VET and adult education sectors and podcasting offers these learners a new modality for participation as well as allowing providers to reach these learners.

Practitioners can augment their current practices with the use of podcasting, generating a new way to assist these learners and furthering educational goals. Podcasting offers the flexibility to create (or find) suitable content covering performance criteria stipulated within units of competency, in a format that can be taken 'on the road'.

The technology also enables learners to use podcasts, which they have created, for assessment purposes. They can record materials 'in situ' that meet performance criteria and then convey this to their teacher. This is a particular aid to learners who experience learning or literacy difficulties and provides a new flexibility for them.

2.2 How does podcasting offer an alternative solution?

The uniqueness of podcasting in terms of its capacity to be syndicated is what sets this technology apart from other modalities. An extract taken from one of the case studies outlines the advantage of podcasting in terms of syndication functionality:

From a practitioner's point of view, podcasting has a definite use as a tool in program delivery and especially with individual learners. Its main advantage over audio files is the syndication ability where the learner has control over what and where she/he downloads information. The syndication software makes downloading easy as once it is set up and programmed, it virtually runs itself, leaving the learner free to pursue other interests and able to return to the podcast at any time. Podcasting is available anywhere and any time as long as the learner has access to a computer and Internet access. This spatial/temporal freedom is one of its strongest features. Although creating podcasts and

uploading them take a fair amount of time, with a bit of practice they would probably only take as long to prepare as a [Microsoft®] PowerPoint® presentation, so compare favourably time-wise. This, of course, depends on the amount of computer expertise the practitioner already has.

(Tutor, Coonara House)

As noted above, in addition to the features highlighted by the Coonara House tutor, the software also allows material to be automatically transferred from a user's hard drive to a digital audio player that they may be using. Whilst at present not all players are supported in this latter process, with the maturation of the technology, many soon will be.

2.3 What is the relevance to learning? Why would you do this over other options?

There are many documents that have been produced as part of the *Connecting the Dots: breaking down the barriers to communication* project. Amongst those relevant to this question are:

- *Case studies*
- *Project overview*
- *Frequently asked questions (FAQs), and*
- *A cheap and easy guide to podcasting for learners/practitioners/organisations.*

With these in mind and the data generated by the focus groups, online forums, email correspondence and synchronous chats, the following ideas emerge:

1. **Support** – Learner remediation is one area that podcasting can play a role. Learners who require greater reinforcement of concepts (which often cannot be given in the current face-to-face format) can now have recordings of their teacher instructing them on the material in question.

On the other hand, those learners who require extension materials (because of the rapidity with which they understand new concepts) can also be supported more than is currently possible. This can occur via the many online directories, indexes and repositories referred to in the *Annotated reference list* and other project documents.

Another area of support may be for learners who have a disability relating to mobility. Occasionally, a practitioner may need to allocate large amounts of time to page turning or to operating a keyboard or mouse. With material available as podcasts, the learner regains independence and the freedom to work when and where they want.

2. **Technology** - Podcasting provides an attractive and tactile teaching device that is attention-grabbing and that quickly gained a learner's focus - it had the 'cool factor' and was seen as cutting-edge.

Learners who fall into the target groups identified by the project frequently have experienced disadvantage in learning. Having access to cutting-edge technology and strategies was both motivating and enjoyable from their perspective. Whilst, as was mentioned in one of the case studies, the 'Cinderella principle' (ie, that any change has a positive impact) may have come into play, the sense of enthusiasm and motivation was real for these learners.

Noted above is the importance of syndication and automation in the process of podcasting. These two technological factors, above all else, provide sound reasons for utilising podcasting in teaching within the VET and adult education sectors. The syndication allows for audio files to be easily subscribed to, distributed and downloaded, making receipt of content for units of competency seamless. In automating the movement of this same material to a digital audio player, the software again reduces the load on the learner and practitioner.

3. **Preparation** – Tutors noted that once they were accustomed to the process of developing podcasts. They found this a fast and effective means of preparing learning materials. Several compared this to the preparation of Microsoft® PowerPoint® presentations and indicated that, although the time was comparable, podcasting was more fun.

Certainly the tutors involved did not think that preparation time (with the qualification that once a practitioner understands and has practised the process) is an impediment to the uptake of podcasting in the VET and adult education sectors.

4. **Learning** – Podcasting provides portability, meets special needs requirements, and assists particular learning styles. Specifically, podcasting allows for learners within the target groups (who may have had barriers to their participation in the VET and adult education sectors) a modality that enables this participation.

This is especially clear from the data collected from the participating centres in the Northeast, where all learners who were involved had significant personal hurdles when contemplating further study. Without exception, these learners identified that podcasting, in the short time that they had worked with it, had opened doors and allowed them to consider possibilities that they otherwise would not have entertained.

5. **Organisational/administrative** – There are many opportunities for organisations in the VET and adult education sectors to streamline administrative practices with the use of podcasting. These include, amongst many:

- making existing print information more accessible
- providing material for volunteers etc to download and take away, and
- podcasting meetings that stakeholders may have an interest in.

The reader will find more suggestions in the project document: *A cheap and easy guide to podcasting for organisations*.

2.4 What are the issues and impacts of implementing podcasting within VET, for learners, practitioners and organisations?

The project team identified a variety of barriers that may prevent adoption by VET and adult education providers. Some of these include:

1. Lack of appropriate skill set within the organisation. This is especially problematic in smaller adult education providers located in rural and remote areas. Conversely, it may be less of a problem for larger ACE or TAFE providers where technical support is far more common.

2. Lack of bandwidth or poor Internet connection, is again, particularly a problem for the smaller and the rural and remote centres, where ISP and considerations of bandwidth options are less numerous. There are some indications that technology is emerging that could help to address these problems (eg: the use of peer-to-peer technology or software such as bittorrent). However, at the time of writing, this is speculative and remains to be proven.
3. It is common for all stakeholders to exhibit a range of emotions to the opportunity to use new technology. These will range from enthusiasm to loathing, as demonstrated by Rogers (2003) in his seminal work, *The diffusion of innovations*. This eventuality requires consideration and preparation so that innovative educational technologies such as podcasting can have a smooth introduction into the various institutions represented by the VET and adult education sectors.
4. Introducing new technologies takes time. Time to research, to learn, to experiment, to practice, to plan, to implement, to reflect and to evaluate. This is so regardless of which stakeholder group is being examined. Insufficient time is the principle reason why the implementation of new technologies is slower to permeate systems than would be optimal - podcasting is no different.

With all the data examined, the time taken to master the technology, along with the lack of adequate compensation for this time, stands out as the principle concern of tutors when considering limitations. There was always acknowledgement that, once mastered, time was no longer a consideration. But in the first instance, it was a significant burden.

The execution of the *Connecting the Dots: breaking down the barriers to participation* project may lessen time spent by stakeholders in the VET and adult education sectors in the future. None-the-less, consideration does need to be given to this vital element of the successful implementation of any emerging technology including podcasting, particularly in sectors that may face challenges in terms of available time and/or resources.

5. Any change of this nature that is to be implemented also requires a cost/benefit analysis at every level. From the organisational point of view, it may be that the support necessary outweighs the possible gains. From the practitioner standpoint, good pedagogy may favour other teaching methods.

The *Connecting the Dots: breaking down the barriers to participation* project has paved the way for such an analysis with detailed information about both the advantages and disadvantages, plus material stipulating exactly what type of investment is required from all stakeholders. VET and adult education providers are now well placed to make an intelligent assessment of podcasting and to determine whether immediate uptake is ideal or whether delay is advised.

In light of the barriers that were identified by the project team, the following basic commitments would be required from each of three key stakeholders groups in the instance where a decision is taken to implement podcasting.

2.4.1 Commitment from the organisation

1. Provision of basic computing services that would include:
 - a. Computers for learners and practitioners to use during the day and evening. These would be in addition to those being used by classes in computer labs.
 - b. Internet access.

- c. Suitable software for the various aspects of podcasting, from creating and publishing to fetching and managing.
 - d. A systems management approach that allows for flexibility within practitioner's classes.
 - e. Individual logins for each person wishing to utilise podcasting. This would include learners and practitioners.
 - f. Storage space for downloaded podcasts.
 - g. Provision of digital audio players for stakeholders, including practitioners, who may not have access to these.
2. Sufficient bandwidth so that classes working together can upload and access material quickly and efficiently. Bandwidth in the participating organisations within this project was 257k, which presented some difficulties. An organisation would need to plan for a doubling or quadrupling of this if they are to effectively implement podcasting or any other emerging technology that has large download and upload requirements.
 3. Sufficient organisational support in the form of accessible technical and mentoring support. This involves allocating the role of mentor and/or technical support to someone in the organisation and then making it known that this is one of the roles that this individual performs. It also requires providing resources for this individual to both perform the role and to maintain currency with the technology as it evolves.

2.4.2 Commitment from the practitioner

1. Willingness to learn a new skill and to accept that learning that involves emerging technology will not always be smooth. There is motivation/incentive required on behalf of the practitioner to invest in the acquiring of new skills.
2. Commitment to training. A practitioner must commit time to training sessions and to reading of materials in order to learn about and implement the technology, the assumption being that practitioners will be adequately compensated for the work that they do that value-adds to both their skills and the services available from the organisation.
3. A practitioner also needs to be prepared to support the learner with the new technology because it is possible that the learner may have difficulties adjusting to it. Hence, there will be a preparedness to dedicate time to their learners as they grapple with the new technology in terms of how they navigate, implement and use it.
4. Podcast preparation time. While this time will typically reduce as the practitioner becomes more comfortable with the technology, the initial investment of time is likely to be significant.

Whilst it is acknowledged that organisations must account for time, it is inevitable that learning emerging technologies will take longer than anticipated. This message is loud and clear in the data associated with the project. Practitioners may need to recognise, therefore, that a willingness to invest some additional time is part of the 'give-and-take' of developing new skills and experimenting with new technologies.

2.4.3 Commitment from the learner

1. Where the learner does not have access to basic computing services such as a computer, Internet, digital audio device etc, a willingness to spend extra time in the VET or adult education institution to engage with the technology is needed.
2. Willingness to learn a new technology and recognition that emerging technologies are not usually perfect, since they are still under development and evolving. Therefore, the learner must be willing to commit time to learning how to download and play podcasts.
3. Preparedness to give honest feedback to the practitioners who have introduced the learner to this technology. There is need for an understanding that, with innovations such as podcasting, there is still much experimentation and that practitioners are also part of the learning journey.

2.5 *What recommendations for the future implementation podcasting can be made?*

Whilst podcasting will not replace other approaches to teaching and learning, it has potential to become a powerful learning tool within the VET and adult education sectors. However, while podcasting is beginning to mature - and with that maturation will come more software with greater suitability for less skilled computer users - it is fair to conclude that it is not for 'prime time' use at this point in time. Organisations and practitioners wishing to utilise podcasting will require a considerable change in thinking as well as very practical commitment to sufficient technical support for the endeavour.

Change of any type requires a shift in thinking and practice. Technological innovation that leads to change requires organisations within the VET and adult education sectors be mindful of the following issues:

- there may be resistance
- barriers and obstacles require identification
- strategic planning must involve preparation for this change
- resources must be allocated, and
- the 'What is in it for us?' and 'What do we get out of it?' questions need to be considered.

In making recommendations for the future, there are four main categories:

- organisational policies and procedures
- practitioners and professional development
- raising learner awareness and preparation for participation, and
- technological.

2.5.1 Organisations

When implementing innovative educational technologies such as podcasting, mindfulness of the dynamics of change is required. In demonstrating this mindfulness, organisations within the VET and adult education sectors require the support of stakeholders and must concomitantly give support to these groups.

Serious consideration must be given to the funding implications that go with the uptake of educational technology, for without a holistic approach to innovations like podcasting, they will either fail or, at best, meet with only partial success.

Organisations that successfully implement change are likely to be those that adhere to the following principles and practices:

- change is planned for and strategic
- barriers and obstacles are removed or modified
- adequate funding is provided to support change
- policy and procedure provide a flexible environment that enables innovation
- ethos and organisational culture support change through enabling risk-taking and accepting failure as a normal part of this process
- stakeholders are provided with sufficient information and support to manage the transition to the new technology, and
- communication with stakeholders is constant.

2.5.2 Practitioners

Providing funding for the uptake of educational innovations is vital. Without funding, practitioners may be required to squeeze in what they can amongst other work, social, community and personal commitments. Funding potentially accelerates the change process.

Funding provided to support stakeholders is an investment in the asset base of any VET or adult education organisation. It increases its competitiveness through increasing its relevance to learners and its capacity to provide improved services.

Sufficient funding communicates to stakeholders that the organisation regards technological innovation and educational change as matters of importance. Funding is required for:

- professional development
- time release for learning
- provision of necessary hardware and software, and
- communication strategies.

2.5.3 Learners

In reflecting upon the experiences of learners within this project, the following recommendations are suggested:

- Podcasting offers potential benefit for learners with aural or kinaesthetic learning styles and profiles. It also has a place in accommodating learners' special needs and seems to assist other learners as well.
- Preparation of learners and other stakeholders is required prior to the uptake of technology such as podcasting.
- Learners may not have out-of-hours access to a computer (eg, in their homes) or to a digital audio device. Provision of these for applicable learners by organisations may be required in order to enhance the capacity for all learners to participate.
- Educational technology has a context in the wider arena of learning. Podcasting is only one aspect of e-learning and only one type of educational technology. Suggesting to learners that e-learning modalities are to be implemented may result in concern. Instead, learners may find it helpful when this context is explained.

2.5.4 Technological

1. **Technological competency.** The general consensus amongst practitioners, as reflected in the focus groups and case studies, is that podcasting (in so far as the practitioner creating and publishing the podcast) is not yet ready to occupy a 'prime time' place. The number of software applications necessary, in addition to the hardware considerations, makes podcasting difficult for a computer user average of average capability.

On the other hand, if a practitioner simply wants to download and listen to podcasts, this is within the capabilities of the average-ability user.

The history of computer development suggests that, over time, podcasting is likely to become both simpler and more accessible. Much of the software in current use is open-source and, therefore, tends to require a higher level of technological competency (or technical support) to operate. However, it is possible that current array of programs that are required to undertake the podcasting process from start to end podcasting may be consolidated into a single product that is both simpler and more accessible to the average user.

This maturation procedure has begun and is likely to accelerate as podcasting becomes more popular. This will move podcasting out of the realm enthusiasts and early adopters, into the general computer user population.

One can conclude therefore, that practitioners currently wishing to utilise podcasting will need support for the endeavour. While passion and enthusiasm for any practice can help to overcome many inherent hurdles and obstacles, where basic technological skills are missing, passion and enthusiasm alone are insufficient.

1. **Bandwidth.** Sufficient bandwidth is required, particularly in the smaller country education centres, to make it feasible for learners to either upload or download podcasts en masse.

2. **Hardware.** Certain hardware configurations seem important if VET and adult education institutions are to participate in podcasting. These would include suitable sound input and output devices and digital audio players. It is preferable that the latter be tested and evaluated prior to large purchases being made. The special requirements of learners', be these in accommodating physical, learning, literacy or psychiatric difficulties, need to be carefully considered in this decision making process.
3. **The digital divide.** Many learners still experience difficulty with computers, or computer like devices.

Practitioners and organisations wishing to implement podcasting must be mindful of this, rather than assuming access to computer technology beyond the institution. Hence, in the short-term, provision is required for alternative forms of podcast content delivery. This could be in the form of files on CD-ROM, allowing learners to utilise the facilities of VET or adult education institutions for the initial download and burning to CD-ROM and/or providing digital audio devices for learner use.

Whilst the digital divide may exclude these learners from the main benefit of podcasting, the capacity to subscribe and then have these files delivered to their space for transfer to digital audio players doesn't exclude them from participation in the learning.

3 Conclusion

The *Connecting the Dots: breaking down the barriers to participation* project was a valuable and extremely worthwhile endeavour, with much learning to be gained by the VET and adult education sector.

Practitioners and learners within the podcasting project team concluded that, while podcasting should not replace other methods of delivery, it has a definite place in the educator's toolkit and is appropriate to be used as an adjunct to a variety of teaching/learning methods.

I think there is a place for podcasting in distance education as one tool in a whole tool kit for organisations that are offering or thinking about offering e-learning units or courses.

(Tutor, MACE Inc)

A key output from the project was that podcasting proved a valuable teaching tool in coming to terms with the diversity of learners and learning environments. In particular, it allows for:

- Special needs requirements of learners. These participants may include, but are not limited to, those with psychiatric, visual and/or learning impairments and those with literacy difficulties – be these related to being from a non-English speaking background or because of gaps in their initial schooling.
- A new tool to address varied learning styles, particularly the kinaesthetic/aural learner.
- Access to original material not otherwise available or accessible to learners. Since podcasts can provide a voice and authenticity to a teacher, lecturer or the like (as well as the ability to be accessed via a multitude of devices), it allows for further diversification of the way learners receive information. This is particularly pertinent to remote, rural and international learners, who represent a sector of growing opportunity for VET and adult education.
- Access to experts, past and present. Database and repositories such as the *Spoken Alexandra Project* are building in number. These are especially notable because they are making historical speeches and works of experts, past and present, available in the public domain. People, whom learners once were only able to read about, can now be downloaded and listened to.

Education is more effective when it is matched to the needs of the individual learner and their particular requirements (which may relate to accessibility or learning style issues/needs). This project suggests that podcasting may assist a range of learner needs. And while there are barriers to overcome in regard to the utilisation of podcasting as a teaching/learning tool, there are also significant gains available for the teaching of learners.

When implementing podcasting, organisations in the VET and adult education sectors need to be mindful of the relevant dynamics examined within this report. There needs to be serious consideration given to the provision of technology, adequate support, a willingness to embrace change and the funding implications that go with this. Without a holistic approach to these types of innovations, they are at risk of either fail or, at best, only a partial success.

The general consensus amongst practitioners involved in the project is that podcasting is not ready for 'prime time' at this point in time. Presently, the variety of software applications that must be used and therefore mastered, on top of the hardware considerations and possible expenses, make

podcasting difficult for an average-capability computer user and/or small organisation. Where practitioners and learners simply want to download and listen to podcasts, this is within the realm of possibility for such users. However, once individuals move to the creation and publishing of podcasts, the learning curve and required technical 'know-how' is significantly greater.

Podcasting, as with other emerging technologies, is likely to simplify over time. Software applications that enable the entire process from creation to downloading are likely to become commonplace. In addition, the hardware designed specifically for the demands of podcasting is likely to be more affordable, more readily available, and less complicated.

Moore (1975) formulated a thesis that has become known as 'Moore's Law'. The rule that it established is, every 18 months computers will double in capacity and halve in price. Over the past 40 years, this prediction has been largely true. Based upon this trend, it can be anticipated that, within the next 12 months, the capacity of both hardware and software will double whilst the complexity and costs will halve.

The experience of the *Connecting the Dots: breaking down the barriers to participation* project indicates that any organisation considering its use in the immediate future must ensure that there is adequate organisational support. This project has emphasised that practical support with the technology, as well mentoring support from an experienced podcaster, is vital for both practitioners and learners.

Given adequate resources and commitment on behalf of practitioners, learners and organisations, podcasting offers a powerful additional tool for the educator who aims to foster and provide life long learning for all.

Finally, here are some practical suggestions for making the use of podcasting more successful within VET and adult education settings:

1. Provide a comprehensive introduction/training session for participants to get them started and to ensure they have the necessary skills. This could be part of an open day or a separate event in its own right.
2. Integrate learning about podcasting with general work on the use of the Internet in order to normalise it as much as possible.
3. Use scaffolding approaches with learners that gradually eases them into the total podcasting system. For example, a learner could start with the material on a CD-ROM and, once accustomed to the process of listening, they could graduate to a digital audio player, pre-loaded with material and then finally to downloading podcasts themselves.
4. The approach detailed above could also be utilised for practitioners who are beginners with ICT.
5. Identify podcasting websites and files for participants to commence with, again easing them into the technology. This is especially pertinent for practitioners, who like their learners, may have limited additional time available and therefore benefit from ready-made resources that enhance their learning delivery.
6. Ensure that practitioners undertaking podcasting have access to a mentor and/or technical support. It does not seem to make sense for practitioners to invest many hours 'figuring out the technology' when an experience technical support person could manage the process in minutes.

7. Ensure that all practitioners, administrators and learners are briefed in relation to copyright issues and the importance of observing the intellectual property of creators and producers. With the VET and adult education sectors increasingly relying on digital files, the potential for copyright breaches is far greater than in the past. Therefore, all parties require information and education about what is and is not permissible under the current provisions of the law.

By way of summary of the core experience of this project, the words of one of the tutors involved in the project are key:

...one thing I love about open source for all its short cuts and sometimes failings, the people behind it have a passion for what they do - like we do for this project .

(Tutor, MACE Inc)

4 References

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Spoken Alexandra Project: <http://www.spokenalex.org>

ITConversations: <http://www.itconversations.com>

Podcast Directory: <http://www.ipodcast.org.uk/>

Odeo: <http://www.odeo.com>

5 Appendix

5.1 Focus group: October 5, 2005

The following is a summary of the questions and findings of the focus group conducted October 5, 2005 at Yackandandah with the team members of the *Connecting the Dots: breaking down the barriers to participation* project.

5.1.1 What does podcasting mean to you?

Key words: connecting, reaching new people, extending boundaries, bringing people together, new options, support for disabilities, accessibility, interactive, flexible, fashionable.

Key concepts:

Awareness

Of the possibilities the technology provides for new ways of being able to reach isolated (re: literacy, geographically) people.

- Learning about the possibilities and plans for passing on knowledge to other tutors who have responsibilities for delivery to those with disabilities.
- Good way of introducing people to a new technology, providing an option to 'have a go', ask learners to think of ways that they would want to use it.
- A positive move for addressing literacy options.
- Could provide an entry door into education for reluctant learners through enticing them to 'touch' technology. Benefits that could then carry over into other areas of learning with technology.
- iPod® a cultural statement – is fashionable and acceptable and can be used for education at the same time.
- Opportunity to share the concept when interacting with others who don't know about podcasting. Seeing the interest and potential application to business environment. (Eg: teach people to be able to put up a share trading item to the web).
- Knowledge of how current the outputs can be. Able to create something and have it 'out there' instantly. The editing capability it provides.
- Exciting options; instantaneous release.
- Noted the frustrations that come with slow connections and how bandwidth can limit availability and accessibility.

Learning

- Being able to listen instead of purely a visual option for learning.
- Enables people to focus on the listening, without distractions.
- Provides the options of being able to listen in your own time.
- Far more interactive than some other learning options.
- Opening up a new form of learning. New way of thinking about learning. Not just a new tool but a new way of learning.
- Ability of the tutor to 'replicate themselves'. Awareness of how and why this could be applied for areas where there are limited staff and isolated learners.
- Liberates people by providing another option where print may have disenfranchised people or traditional education may not suit them.

Accessibility

- Valuable potential for use and application for those with disabilities (eg: vision impairment, stroke, may 'open up a new world' for some people).
- Opens up the issue of accessibility. Potential there for those who are isolated (noted that isolated need not be geographic) to extend their communication options.

5.1.2 In your experience, what does podcasting provide that you can't get anywhere else?

Key words: Instant, unique, sense of being personalised, tone of voice, someone is talking to you, intimate, not automated, passion, inspirational, access, immediate.

Key concepts:

Anywhere anytime

- Portable – take it with you anywhere/anytime.
- Something you can do while you are doing something else or choose to only listen.

Connection

- Anonymous - nobody knows what you are listening to. For some people they may be able to listen to things others may ridicule them about.
- Attraction element, fashionable – 'cool' etc.
- For those who have felt marginalised. May positively influence self-esteem by being able to use the latest technology.

- Not automated – personal, can impart passion, inspire by the use of voice.

Learning

- All the beauties and qualities of voice are available in the learning environment such as the qualities of 'radio' that are valued.
- Bringing voice 'back into its own'. Making learning more like it 'used to be' by having voice available in online learning.
- Opportunity to hear presentations from key people and experts around the world. Improved access for remote people who would not normally be able to travel or extending the options of access to material from around the world.
- Bedtime listening - concept like bedtime reading. Uses the fruitful periods of the day to help absorb when in relaxed state good for learning.
- A method for the tutor to report personally on the work learners are doing and provide tips not able to be provided as efficiently/effectively through a text medium.
- Decreases 'daunting' feeling re course material/learning especially for learners with difficult accessing meaning from print alone.
- Gives a personal connection between people on a regular basis. Within education can help address learning in a far more personal way.
- Enables reflection on learner work – giving feedback. Could become a regular part of the training process. Subscription could be factored into the training schedule.
- Provides an option to assist learners who learn from different methods.
- Material can be replayed/reviewed when needed or most relevant to learner.
- Extension options can be provided.
- Making a podcast is more fun than typing reams of notes and more time efficient for the tutor, therefore more sustainable.

Accessibility

- Time saving – options for subscription to automatically upload most useful materials on a regular basis.
- Learners who are away (eg: sick) can catch up or keep up with work.
- A way of supporting learners rather than travelling distances and having to be there where cost prohibitive.
- Could make podcasts for the group to follow eg: feedback for the group to consider.
- Build rapport and capacity; provide encouragement, progress reports, explanations, and tips on new materials.

- Sustainability – consideration on how to do things quicker, how to contribute on a regular basis.
- In an educational setting, factor podcasts into program for specific purposes.
- Not an either or option, but an additional option, extending the possibilities.

5.1.3 How would you answer a colleague's inquiry: *Why would you do it, why would you podcast?*

Key words: support, options, interest, access, and commitment.

Quotes:

'When it is easy, you use it more'.

'Much more fun than [Microsoft®] PowerPoint®'.

'A book is often better than a movie'.

Key concepts:

Support

- Help for learners with disabilities and various issues.
- Frees up teacher to teach rather than having to spend time providing physical assistance to learners with disabilities re page turning, etc.
- Aimed at individual but there for the group to access. Not singling out one individual.
- Another learning tool option.
- Formal written text can be intimidating. Voice may be less threatening and more assuring.

Technology

- Knowing how to address physical difficulties: ie, if unable to use an MP3 player, provide on CD-ROM.
- Important what type of machine is used – provide different options for different learners.

Preparation

- Time commitment – all learning preparation takes time. More time efficient than video production.
- 'Much more fun than [Microsoft®] PowerPoint®' because it is voice based rather than text based.
- No typos – learners not so inhibited in expressing themselves. Inhibition re writing maybe reduced.

Learning

- An aide to learning – not a replacement.
- Tutor interest – how learning styles of the tutor affects the methods of delivery chosen.
- Useful for stimulating imagination.
- Listening may help create a more fertile inner imagination. Podcasting can help foster visualisation skills. Creative learners more at risk of leaving education system that doesn't cater for creativity.
- Imagery (video) may put people into a box – by using oral descriptions learners can create their own 'box'.
- Could be an educational activity and have an infinite number of ways of applying the concept.
- May have a longer-term effect on the education options – creation of skills in imagery (counter concerns of what is being lost by over supply of TV).
- Disengaged learners may be alternatively engaged in other means, oral options may assist in re-engaging learners.
- Oral assessments – another way of sending in your work for assessment. Questioned raised re 'How does this translate to work situations where literacy and numeracy is an issue?' Response: Be clear about the different purposes, where podcasting can be valuable, where reading and writing is required. Not an 'either or' approach, but another bridge from illiteracy to literacy.

5.1.4 What, in your experience, are the limits of podcasting?

Key words: access, knowledge, resources, policies and procedures, awareness, interest.

Key concepts:

Accessibility

- Download time, limited Internet access time.
- Concerns for those with disabilities: Do they have equipment at home? Can they afford equipment (computer, player, software, access)?
- Those with limited access who have to come to community provider lose the benefits of anywhere any time.
- Danger of isolating the isolated – need to be a consideration in applying this to the learning environment.
- Cost of current commercial software. Open source fragmented (not a single package and difficult to find).

Learning

- Has the possibility of two-way communication but not in real time. Stimulus – response time delay.
- Need immediacy to respond to learner's demand.
- Lack of immediacy – in a classroom the response is straight away. How does that translate to a podcast? Response is delayed and this is a one-way communication.
- Subject material limits. What curriculum is suitable? What would be good? Suitable for foreign language, English language, part of an online course. Not suitable perhaps for first aid though can assist but not a complete option.
- For those who need repetitive resources but cannot be assessment for hands on type training.
- Useful for repetitive reinforcement, extension, instructions/procedures, rarely exclusively just a podcast but a blended learning approach.
- Not good for assessment where a visual component is needed but could be used to prepare and guide someone through an assessment procedure.
- Audio preference or audio resistance - relating to learning styles and interest in audio from the learner.
- Is this a novelty that will take us down a dead end? No, an educational option in our set of tools. Not the 'be all and end all'.
- Not just a passing fad because it 'fills the gaps'.

Skills

- People's technology knowledge – lack of skills of how to use technology or lack of desire to gain knowledge. A certain level required. Not instant access.
- Assumption that learners will automatically know how to use this. Option to send a CD-ROM to bridge the gap.
- Lack of knowledge of technology or lack of desire. Who would this suit? Can this be translated to it in general but is this specific to podcasting?
- Still entering the public imagination – how is that different to having a tape or CD-ROM. Syndication is the difference.
- Technology – new and evolving, often open source with no support but has issues to solve and think about how the solutions can actually work. Having to track down open source support in a low funded environment eg ACE.

Funding

- ACE sector – funding, storage of podcasts and the bandwidth to download from website. Who pays for the access to download the more popular files – can become more costly for providers to continue to host podcasts. Who chooses which ones are available and sets the priorities?
- Downloading - cost of policing issues.
- For many learners Internet access is remote and through satellite provision – income may limit access and ongoing maintenance of requirements.
- Tutor cost (especially sessional): access to ADSL, technology, players, and computer options. How much is it costing tutors to stay abreast with technology to keep up with requirements and time? Acknowledgement of professional development role and limitations. Not everyone will want to or be able to self fund their own PD – learners and tutors.
- Costs shifted to learner – printing documents etc. What does that mean re the technology etc for the future directions in this area?

Policy

- Organisational issues – decisions and policies around the adoption of podcasting
- PD more time consuming than it used to be. Out-of-work self-funded PD. To stay employed and to be doing the right thing by our learners. Responsibility has shifted to the participants, as have the costs accordingly.

5.1.5 Was a shift in thinking (in you, learners or your organisation) required to implement this podcasting project? If so, in what way?

Key words: overcoming resistance, moving forward, identification of barriers, policy.

Key concepts:

General

- Having to take on a new technology and be prepared for demand. Being current, staying abreast of new developments, to respond to community needs.
- Exposure – new awareness of evolving technologies.

Resistances

- What changes would learners or organisations need to make? – thinking of the things that can be done.
- 'What is in it for us – what do we get out of it?' – stakeholders needing to know.
- Bottom line – the dollar – providing services for clients.

- Convincing support staff to allow software – lack of knowledge and willingness to give control of requirements to staff.
- Security – IT policies.
- Management permission to have these things on computer (software, devices).
- 'Don't spend any money'.

Shifts

- Burden of pioneers to educate others about the benefits.
- Related to other training issues ie: require paradigm shifting from classroom group based to individual off-site learning.
- Management need to see the value – financial, client increase etc. Need to get management onside for successful implementation. Management need and the desire for training methodology to be up-to-date.
- Reduces workloads.
- Online not second best to face-to-face– rethinking paradigm of learning.
- Where people sit within the learning paradigm affects response to podcasting.

5.1.6 At this point in the project, what has been the most important lesson for you? What would you do differently next time?

Identification of FAQ question topics

- Glossary of terms – explanation of terms.
- What computer literacy standard do you need to be at before you start podcasting? Technical expertise required?
- How much time do I need to allocate – initially, ongoing basis?
- How much will this cost – financial cost to organisation, practitioner, learners, any others?
- What is in it for me (learner, practitioner, organisation)?
- What are the hardware and connectivity requirements suitable for podcasting? (Ideal and minimum)?
- What infrastructure would be suitable?
- What cost-effective solutions re software are available (especially open source)?
- How can an organisation prepare for adopting new technology (podcasting)?

- What is it?
- Where do I start (making or fetching)?
- Why should ACE be involved in podcasting?
- What is it about podcasting that attracts people to become advocates?
- What would a solo practitioner need to know to get started?
- What pre knowledge do I need to get going – any prerequisites or assumptions?
- Worldview – practices, what are we committed to – paradigm shift needed?
- What educational vision does this support?

5.2 Focus group: October 12, 2005

The following is a summary of the questions and findings of the focus group conducted 12 October 2005 at Upper Ferntree Gully with the team members of the *Connecting the Dots: breaking down the barriers to participation* project.

5.2.1 What does podcasting mean to you?

Key words: portable, valuable, customisable, choices, informing, immediate, educational value, accessible.

Key concepts:

Awareness

- Can be a method of distribution for valuable material. Would require an assessment of what is 'valuable' rather than just personal information not suitable for the public domain.
- Provides audio with all its virtues – portable and not time restricted. Could make the topic more interesting as you can listen rather than read.
- Customisable – to one person or a group of people – Podcasts could be developed focussing on a specific need for a learner.
- The amount of time required and possibility that the requirements of podcasting to take over other responsibilities – possibility the same issue for addressing requirements for learners who do not have regular access to a computer or the Internet.
- Considering the implication if equipment not available and where the only access is through a public place.

- Considered the uses and applications – practitioner to fetch appropriate podcasts and burn to CD-ROM for use in class to avoid valuable lesson time spent in helping learners who have disabilities do their own fetching.
- Current limitations of the practice.
- Amount of own time required to become proficient, level of commitment and self funded requirements.
- Use for individual learners, assessments, walk through an activity.
- Understanding that podcasting is not simply a sound file.
- Uploadable – focussed on the production of podcasts, downloadable – focussed on the listening to created podcasts.
- Fetching and production – the different roles of each aspect.

Features

- Like radio with more choices – when, what and where.
- Provides regularity like radio.
- Delivered by the Internet so learner can download onto computers using RSS feeds.
- Delivery straight into the ear by earplugs could minimise distractions and help learners tune into the program.

Learning

- About informing – can be educational, informational while also entertaining.
- Immediate and topic specific.
- Can provide an audio version of the main points of the class.

Accessibility

- Doesn't require a physical presence to download by subscribing. Requires software to do the downloading - set *iPodder* to download on a regular basis.
- Helps encourage learners to be more independent.

5.2.2 In your experience, what does podcasting provide that you can't get anywhere else?

Key words: freedom, portable, cheap, on demand, tailored, easier to manipulated, easier to decipher, listening option, literacy support, ready-made podcasts.

Key concepts:

Features

- Take it with you out of the classroom – portable equipment.
- Unique.
- Freedom of the light weight device.
- Cheap once you have everything in place - CD-ROMs or tapes cost more than an MP3 file.
- Cheap to produce – could be out of date in a week but can be easily replaced.
- Can be manipulated – quicker to find relevant sections using digital technology.

Learning

- Ability to be on demand – practitioner doesn't have to be there all the time, learner can download without having to be in the classroom – more instant outside of the classroom.
- Can have different sets of instructions for groups of learners – integrated into other activities.
- Don't need high levels of literacy to be able to decipher the content.
- Suitable for learners with dyslexia or low literacy.
- Teacher being able to record what is necessary and customise the content for the learner and the class.
- Choice of ready-made resources.
- May suit kinaesthetic learners.
- Useful for language teaching.

Connection/access

- A portable communication with no direct contact with the podcast author but rather transfer files across distance.
- Cheap to fetch podcasts once infrastructure is there - need broadband.
- Podcasts can be sourced from public Internet locations.
- File creation options – manipulative software to create podcasts to a higher standard than traditional audiotapes – eg, *Audacity*.

- Promotes learner independence.
- Potential for use of the podcasts in the learning or workplace environment.
- Doesn't cost a lot to make a specific file for a learner – tailored without too much cost.
- Another form of information – in the future will become more familiar.
- Learners may only need an MP3 player to participate.

5.2.3 How would you answer a colleague's inquiry: *Why would you do it, why would you podcast?*

Quotes:

'What you need is a podmaster' (like webmaster)?

Key concepts:

Characteristics of practitioners who would podcast	Characteristics of practitioners who may not podcast
<ul style="list-style-type: none"> • Like computers and technology. • Like to learn new things, cutting edge • Looking for something to offer or disseminate, seeks unique resources • Convinced of the merits of how the technology can be used to reach a learner that may not have been reached in the past. • Motivated to learn how to podcast. • Looks at niche markets. • Have experienced success or good outcomes of using podcasting eg: class reaction positive, learners who are excited by it. • Have support – organisational (money, PD, time, flexibility for timetables to allow PD, enthusiastic about concept). • Have someone else make the podcasts for practitioners to use. (Maybe a luxury). 	<ul style="list-style-type: none"> • Learners not interested or negative. • Those who do a cost benefit analysis and decide that outcomes can be achieved another way that takes less time. • Time effectiveness – 'chicken and egg' concept - how much effort to put into that initial learning phase. • Practitioners who have limited access to technical requirements – broadband, equipment or knowledge. • Technical level expertise – may be a steep learning curve. • Time consuming. • Can see that things can be done in other ways and don't see the benefits. • Personal choice. • Can't find suitable podcasts – frustrating and time consuming after considerable effort.

<ul style="list-style-type: none"> • Rearranging schedules to include the concept in the organisational focus. • Can find relevant materials, found good methods of finding podcasts. • Can find what they are looking for, as they don't want to create materials themselves. • May have experimented with audio first then investigate the option for broadcasting. • Meet the needs of learners who need something else physical while they are learning. • Looking for blended learning options. 	<ul style="list-style-type: none"> • Don't have the knowledge or the desire. • Don't listen to music regularly – not audio type people or inclined to use alternative delivery methods. • Like quietness – don't want any more stimulation.
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5.2.4 What, in your experience, are the limits of podcasting?

Key words: download times, technical barriers, lack of available quality materials, file size, time heavy, navigation for disabled, relevance, copyright.

Key concepts:

Technology

- Some MP3 players too difficult for some learners – buttons too difficult, features frustrating due to manual dexterity issues, reading the small font, may depend on the individual and the type of player. iPod® is easier than cheaper players.
- Can be frustrating for a new learner how to get around the MP3 player – how easy is it to manipulate? Learners who can't control a mouse could not control the player. Cheaper the players are the harder they are to use.
- Learners and practitioners may choose to start with cheaper player to test the podcasting concept but limited functions of the cheaper player could be negative for users therefore they may not necessarily move up to better products and improved functions.
- Download times – speed reduced with poor bandwidth.
- Size of files – limited budgets and downloads and storage.
- Costs related to the host concerning the number of times the podcast is downloaded, how long it is kept?
- Technical barriers: Learners have to be computer literate, could be time consuming.

- Podcasts must be well made – currently some are really bad, quality of the voice makes it a chore to listen to. Music makes files interesting but file sizes too large.
- Same limits when you have re choosing a video – still have to watch and preview before using in an educational setting, needs the virtues of a book. Difficult to get a feel for the value of the podcast, time-consuming to preview and download. Podcasts need to have a journalistic style – have valuable and well produced.
- Time of having to listen to large sections of content then for the practitioner to edit and provide the learner with only the most important points – however customisable factor can be a feature.
- ‘Time heavy’.
- ‘Technically heavy’ and possibly exclusive – sounds delightful but how realistic is doing this?
- Podcasting has some of the negatives of the Internet access so it isn’t really relevant to many people in the rural community. Without broadband there is limited access to all the available features.
- Issues found re configuring and subscribing using Apple® iPod® – ‘time heavy’ to get configuration right – what is the value of the learning, time and importance?

Experience

- All participants need to be trained to various levels, be familiar with technology, confident with podcasting, and practice means speed improves over time.

Accessibility

- Eye sight – font on devices too small to see – hard to navigate.
- Indexing issues at present – no abstracts available.
- Access issues for groups with disabilities.

Learning

- Topic specific – has to be short and sharp – may not be what everyone wants – would be time consuming for the practitioner to create a lot of podcasts that are suitable for each learner.
- Cannot be listened to indefinitely.
- Whilst podcasting is an emerging trend it is hard to find good podcasts that are beyond novelty value - minimum suitable resources available at present. For example, authentic voices – practitioners seeking information on topics of importance.
- Searching for a way to use podcasting – how to find a good application within the learning environment rather than artificial examples. Are we are trying to find a purpose for podcasting rather than matching the right technology to the learners?

- Some subject matters not relevant to podcasting.
- A valid educational purpose is not always obvious.
- Journey of how this technology could be applied very new. Experience so far has found more uses for audio, which raises the question why you would upload it? May become more useable as time goes by re the applicability and appropriate uses.

Copyright

- Music – concerned about copyright and the implications for broadcasting, users must be aware of issues when publishing on the web. Must research and find appropriate resources that are copyright free.
- Non-broadcasting may help address some copyright issues but then it is not podcasting.

5.2.5 Was a shift in thinking (in you, learners or your organisation) required to implement this podcasting project? If so, in what way?

Key words: appropriateness, educational context, and adoption by learners, incorporation into strategic plan, commitment, resources.

Key concepts:

Awareness

- If there is some awareness of the concepts before commencing and the organisation already looking at the area of flexible delivery then shift is not so grate but rather an awareness of the future application.

Learning

- Learners a paradigm shift – had not considered anything like that before and not independent learners. Podcasting was not considered an option to extent learning outside the classroom and that it could be pleasurable. Learner response was positive even though they may not like class or topic presented.
- Shift away from dependence to independence – move into lifelong learning.
- Looking at the learning styles and incorporating into every day use. Having learners know the way they learn.
- Having podcasting incorporated into learners practices if it matches their preferred style and having it readily available.

Adoption

- Valuing learners and this mode – willing to provide resources to support this option.
- Lifelong learning – can be applied to other areas.

- Organisations – must be looking for new innovative ways of doing things. Would it work if under pressure to do this? Need ownership of the concept, pilot concepts.
- Embedding strategy could consist of organisational support for professional development – train one staff member to discover new practices with a view to sharing with others.
- Requires people be open to change and innovation.
- Ethos requires a willingness to shift.
- Help facilitate a changing thinking by showing practitioners that they can become proficient - 'I can actually do this'.
- Could be a different scenario if the concept is not part of the overall strategic direction to change the way of doing things.

Professional development

- Would be part of the overall plan of professional development within the organisation – without professional development would not be exposed to the concept.
- PD to be encouraged and paid for to extend and support staff.
- Recognise that practitioners are also learners and no different to anyone else – need time.
- Practitioners need to see how to teach with the podcasting tool – limitation can be too much time mastering one particular tool and not focussing on all the options available. 'Too many tools, I still need to learn the trade'. If it takes too long it may not be seen as worthwhile.
- Can be counterproductive if it takes too long – can cause hostility.
- Break the PD down into steps: build confidence first, break concepts down into smaller steps, start on audio first, then master the fetching, then uploading.
- Could start with looking at the educational value then where appropriate look at the creation side later.
- Being left behind can be a factor for people not adopting if it is not achievable – put into place processes to help keep up with others who are in the process of change.
- Avoid too much jargon - can cause frustration and be alienating.

Costs

- Funding is an important catalyst to begin and embark on the process. Without funding adoption would be much slower and would rely on personal time to be committed from practitioners.
- Takes a personal commitment to improvement by practitioners and learners.

- Is there another way of doing the project – how can we utilise the project more profitably – train one person per organisation to continue to dissemination? Second layer that could translate into more managing bite size pieces – embedding – one person be trained then they come back and disseminate and facilitate adoption.
- Organisations in the future could look at a different model of becoming aware of the material.
- Without trial funding – would wait to see someone else doing it first. Dissemination and embedding would be slower. Wait for more readily available resources and practices – ‘osmosis effect’.

Technology

- Software raises difficulties – can move people away from adopting the concept.
- Need to be walked through the idea/technology several times before the ‘penny drops’.

5.2.6 At this point in the project, what has been the most important lesson for you? What would you do differently next time?

Identification of FAQ question topics

- What level of technical expertise is needed to begin the project?
- How much time will I need to put aside? How much time does each component take?
- What equipment must I have (ie, what are the absolute hardware and software necessities)?
- How many steps are needed to create a podcast and get it online? Eg, four steps, provide a big picture type map:
 1. Create file
 2. RSS file
 3. Upload
 4. Subscribe.
- What is the ideal length of a podcast – ideal times per type of podcast? Is this related to the length of music people are used to listening to (eg, around three mins)?
- What are the characteristics of a good podcast and in what circumstances (provide a matrix)?
- What can you use podcasts for within education - future situations and examples?
- What will this cost – learner, practitioner, organisation?

- Is there a central place if I need support – where do I go if I get stuck (preferably a person)?
- Where can I find good podcasts suitable for VET learning (current searches too broad)? Are directories available? (Provide a list with annotation and examples of good sites).
- How can podcasting be embedded as part of blended learning? How does it lead as well as follow on from other things?

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