Preparation of Academics for Teaching in Higher Education – Resources subproject

Final Report
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1.0 Introduction and document overview

The ALTC-funded Preparation of Academics for Teaching in Higher Education (PATHE) project consists of five subprojects of which the resources subproject is one. It is coordinated by a project team from ECU, Curtin and Southern Queensland Universities and aims to answer two research questions:

1. What are the resources needed by those who teach a Foundation Program?
2. What are the best processes to disseminate materials and practices across the sector?

This subproject seeks to identify and make available resources to the Foundations community in order to support the efforts made to develop programs and keep them up to date. The aims of this sub-project are therefore to:

- identify and select resources currently used in Foundations programs;
- identify any gaps in resources, and communicate these to the wider community so that such gaps may be filled;
- develop a limited number of key resources, if time allows

This final project report provides an overview of:

- Best practice literature relating to resource sharing
- The PATHE database including justification for its selection
- The techniques used for resource collection
- The subproject budget
- Sustainability considerations
- Recommendations for future action

Supporting material is included in the report appendices.

1.1 The Foundations community

Foundations programs are taught in the majority of Australian Universities as part of the preparation of academic staff for teaching. The existing Foundations community is reinforced and supported via a number of face-to-face and online practices including the annual colloquium, the website and a listserv.

The practice of resource sharing receives considerable attention in the literature yet the process of how to encourage individual staff members to submit resources
remains difficult to define. This ‘willingness to share’ (and further, a willingness to upload materials to an online repository) depends very much, according to Kimble & Bourdon (2008), on the participants and that a community that experiences significant social interaction and networking is more likely to share knowledge (Child and Shumate, 2007 cited in Kimble & Bourdon, 2008). Put more simply, the more friendliness there is between members of the community the more positive the sharing culture will be (Goffee and Jones, 2003).

Online resource sharing in the foundations community would ideally be an extension of the sharing, reviewing and discussion of teaching resources that occurs in real-life. Oliver (2008) has identified the importance of ‘overcoming the overheads’ in a resource sharing community. This focus on removing barriers to sharing should be translated into a strategy for developing the PATHE database. For example, the lack of impetus for resource creators to add their materials to the repository may be overcome by building in sessions for working on resources into the Foundations Colloquium. Riex (2004 cited in Kimble & Bourdon, 2008) makes an interesting distinction between the ‘warehouse’ approach to repositories where resources are stored for later use and a learning approach where users interact with the materials in the repository and use them as a basis for further development. If the latter approach can be used for this repository then materials will be added when teachers interact with them.

2.0 Research into database best practice

2.1 Literature
The use of repositories to allow the discovery, management and preservation of resources (Tennant, 2002) is based around what Lehman (2007) calls ‘object-oriented thinking’ where objects are small, reusable chunks of digital information. This definition matches the aims of the PATHE resources subproject well. Tennant expands his definition to say that the sharing of such objects eliminates the need to recreate materials, stimulates collaboration and provides support to users. These attributes would also provide considerable benefits to the Foundations community.
Information and communications technology (ICT) has the potential to enable authors and readers (Roosendaal, 2004), so that the proliferation of community and institutional databases has been matched by developments in online repository tools. Repositories have particularly enabled the sharing of ‘grey’ literature (Tennant, 2002) such as pre-print articles, professional development resources and other materials that have traditionally been more difficult to catalogue and share. The PATHE resources project is interested in this ‘grey literature’ as well as more formal reviewed and published resources used by the community of Foundations teachers.

Types of repositories can be listed as general, discipline-specific and commercial (Lehman, 2007) although a distinction is also generally made between institutional repositories (hosted by and primarily targeted at staff within an institution) and community repositories (based around a group of staff with similar interests and practices that exists across institutions). The PATHE resources subproject is interested in the development of a community repository developed for teachers of Foundation programs across all Australian Universities.

The issue of metadata receives considerable attention when considering how to maintain a functioning repository. Lehman (2007) wrote extensively about the importance of correctly ‘tagging’ resources so that users can easily navigate the repository and so that ‘accessibility, interoperability, reusability, deliverability and scalability’ are enabled. It is reinforced again, therefore, that the PATHE resources subproject repository has an appropriate, comprehensive and easy to use metadata schema.

2.2 Review of available databases

There are a number of long established, highly accessed online repositories focused on teaching and learning materials that can inform this subproject, the most well-known of which may be MERLOT (Multimedia Education Resource for Learning and Online Teaching – viewable at: http://www.merlot.org/). This ‘general’ repository is free, open-source and designed for use by teaching staff and students in higher education. MERLOT hosts a number of community portals (including one for Teacher Education which, similar to this project, has a specific focus, although aimed at pre-service school teachers) that gather material by discipline and where
an ‘Editorial Board’ tests and reviews the uploaded materials (materials are uploaded by users, triaged and then either posted without review or double-peer reviewed and the items are posted with the reviews attached). The MERLOT repository is adaptable by registered users who can browse materials, modify their profile, search the member list, develop a personal collection of materials and subscribe to updates via RSS.

Whilst a number of other online databases are used to host and share resources across Australia (including for example, HarvestRoad Hive; and a commercial database system and Learning Object Repository Network (LORN) – used by the VET sector to house online objects), the ALTC Exchange focuses specifically on sharing individual teaching practices across the higher education sector. Members can build resource lists, upload resources, join/form groups, browse discipline groups and comment on resources already housed in the Exchange.

2.3 Database selection and justification
The primary reason for developing a separate database for the Foundations resources is ease of access for those with a particular interest in materials that specifically relate to teaching into Foundations programs. In addition, there is a pre-existing community of those who teach into Foundation programs, so one of the primary reasons for developing this database is to create an easily accessible ‘space’ where resources can be shared. This means that community maintenance and community building is part of this process, and since a Foundations Community of Practice is already established, having its own online environment will help to reinforce and build this community’s identity. In addition, a separate database allows for the opportunity to control the navigation in ways that suit this Foundations community. The database serves as an extension of the yearly colloquium and an ongoing space to build on the momentum created by that colloquium.

The Technology-Supported Learning Database (TSLD) was developed by Professor Ron Oliver as part of an ATLC fellowship. Oliver has noted (personal communication) that many learning designs do not capture what the teacher does. The TLSD is based on the assumption that teaching is a complex, recursive activity critically mediated by contextual elements; and that the teacher is expert in
designing, delivering and assessing student learning. The Foundations resources repository is based on the same assumptions, and the database is similar in structure to the TLSD. There are three ‘levels’ to the data i.e. three broad filters within which users can perform a more specific search before looking at more detailed description to make a final decision.

Professor Oliver has noted (personal communication) that teachers rarely use a resource ‘off the shelf’ without first adapting it to their context. Consequently, when teachers are searching for new resources, it is descriptions of how the resources have been used, rather than what the resources are, that are often more useful. Therefore, the Foundations database has a ‘comments’ area where Foundations practitioners can describe how they have used the resource.

2.4 Database criteria
The criteria for learning resources used by MERLOT have been adapted and reworded for use in the PATHE subproject under Creative Commons Licensing. Adaptation has included the definition of the following keywords:

- Resource: refers to any new object submitted to the PATHE database
- Facilitator: refers to the Foundations program coordinator or session teacher
- Participant: refers to academic staff participating in Foundations programs
- Student: refers to learners that are the recipients of participants’ teaching
- Foundations Program: refers to the program attended by academics preparing to teach in Higher Education

There are three general categories under which resources are evaluated; quality of content, potential effectiveness as a teaching-learning tool and ease of use

Quality of Content
There are two general elements to quality of content:

1. Does the resource cover valid (correct) concepts, models, and skills?
Reviewers should rely on their expertise to evaluate validity.

2. Does the resource present educationally significant concepts, models, and skills for the Foundations program?
To evaluate the educational significance of the content, reviews can use the following guidelines:

- The content is core curriculum within the Foundations program. Core curriculum topics are typically covered to some degree in the introductory
classes within the program and/or ‘everyone teaches it’ and/or it is identified
as a core area by the Foundations community.

- Content is a pre-requisite for understanding more advanced material in the
discipline.

**Potential Effectiveness as a Teaching-Learning Tool**
The peer reviewer should use her expertise as a teacher to judge whether the
resource is likely to improve teaching and learning given the ways the participants
could use the tool. Sometimes the resource being evaluated is "taken out of
context", making it difficult to evaluate. The value of "modules" is their ability to be
re-purposed for others’ use in different contexts. In performing a review, we use
the following three questions to help define the pedagogical context.

1. What stage(s) in the Foundations program could the materials be used?
2. What is(are) the learning objective(s)? What should participants be able to
do after successfully engaging with the materials?
3. What are the characteristics of the target participants?

**Ease of Use**
The basic question underlying the ease of use standard is: how easy it is for
facilitators and participants to use the resource for the first time? Elements that
affect ease of use include:

1. Does the resource provide appropriate flexibility in its use?
2. Does the resource require a lot of documentation and/or instruction for most
   participants to successfully use it?
3. Does the resource present information in ways that are familiar and
   attractive for participants?
4. Does the resource present information in ways that are familiar and
   attractive for students?

The metadata schema defines the descriptor fields that are filled in for each
resource in the database. It was developed during an earlier stage of the project
and the field ‘submitter’ has been added (this will not be visible to database users).
The full list of metadata fields are listed in Appendix A.
2.5 Database design

The PATHE database is live and available online at: http://aragorn.scca.ecu.edu.au/pathe/. The following screen-shots are provided to illustrate the layout and design of the database.

The PATHE database is designed to make effective Foundations program teaching ideas reusable and sharable. The resources in this database have been supplied by teachers who are keen to see them used freely by others. Teachers can add their own resources to the database. Adding simply requires registering a name and password and logging in. Once registered in this way, users can add resources, maintain their entries, and rate other resources. When adding resources, it is important to complete all the fields as descriptively as possible to allow others to understand the resources. When a resource is first submitted, a moderator will review it to ensure that it is appropriate for the database. Once approved, the resource can then be viewed by others and edited at any time by the resource owner.

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organize a peer review of the entry and when it has been approved the resource can then be viewed by others and edited at any time by the resource owner. The database is publicly viewable, but in order to actually input records users need to register with the system. The registration process is automated, whereby the user inputs their details and an email is generated to confirm their password. Database moderators manage the system by administering user accounts, editing/deleting or approving activities and managing user-posted comments. The moderator also has the option of using the ‘mailout’ function to send a message to all registered users of the system.

3.0 Methodology and data collection

Two main techniques were used to identify and select resources currently used in Foundations programs:

3.1 Collection of resources
1. A face-to-face workshop was facilitated by project team members during the 2008 Foundations Colloquium.
2. An online survey was sent to the heads of teaching development units at those universities not represented at the face-to-face workshop.

The workshop was held in Townsville in September 2008. The online survey was hosted on the ECU Survey Monkey account. All participants (face to face and online) were asked the same questions about resources they recommended.

3.2 Identification and selection of resources
The ‘big ideas’ were identified from a number of sources and tested in the workshop with Foundations colloquium participants. Sources included:

- Unit and course documents from the ALTC Graduate Certificate in University Teaching project.
An unpublished paper by Peter Kandlebinder and Tai Peseta listing ‘key concepts’ in Foundations programs, presented at the 2008 colloquium and tested in the workshop with Foundations colloquium participants. Colloquium participants and online survey respondents provided descriptions of 42 different resources categorized under the seven Big Ideas developed by the Project Team (most (16) were suggested under big idea #1 – Reflective practice and continual improvement with 13 suggested under big idea #7 - teaching skill development). Many of the resources suggested were of a traditional nature (such as workshop activities, reference texts and case studies) although there was a significant number of websites and videos/DVDs also suggested. Resources were mostly to be used face-to-face with a small number for online use.

3.3 Developed Resources
The majority of ‘start-up’ resources for the PATHE database were generated at the 2008 Foundations colloquium. A series of metadata fields were generated from the literature prior to the colloquium and tested during the session with Foundations participants (see Appendix A). The project teams reviewed the resources collected during the session, ensured that all the ‘big ideas’ were covered and that micro and macro resources were included in the list. Resources were then uploaded to the PATHE database and a process for adding new resources was developed (see Appendix B).

4.0 Sustainability
4.1 Maintenance
The growth and renewal of the PATHE database will include the addition of new resources and the review and removal of outdated or superseded ones. There will be two processes for adding to the database: online submission by individuals and the annual generation of new content at the Foundations colloquium. Both of these processes result in new resources being submitted to the PATHE database (with the submission of metadata) for moderation and peer-review. The database moderator will also be responsible for the annual review and decision-making about resources that should be removed from the database.
4.2 Embedding in the Foundations’ community of practice
The PATHE database will become a cornerstone of the annual Foundations colloquium and will feature as a regular 1-hour session during this gathering of practitioners. The database will be embedded by offering it as a professional development opportunity for both new and established Foundations facilitators across the community. Involving Foundations community members in reviewing resources submitted to the database will contribute to the embedding of the database in the Foundations community of practice.

4.3 Dissemination
The dissemination strategy for the PATHE database will focus on two activities; face-to-face dissemination at the annual colloquium and online dissemination using a link to the database on, for example, the PATHE project website and the ALTCXchange. There will also be a twice-yearly email to the Foundations community via the Foundations listserv to alert participants to the new resources that have been added and to encourage further submissions.

5.0 Outcomes and recommendations
Recommendations from the PATHE Resources sub-project are for:

- One of the partner institutions to host the PATHE database on a 3 year basis and a permanent home sought.
- Each colloquium to include a facilitated session to develop resources that will be shared through the repository. Foundations community to be invited to bring resources to work up for submission so that regular updates to the repository are generated.
- A blind peer-review process to be used to ensure quality of resources in the repository. Members of the Foundations community will be invited to nominate as reviewers.
- A database moderator to be appointed whose role would be to receive the submissions, manage the review process and publish accepted resources. CADAD may be involved in supporting the administration of the Foundations repository as part of their support for the colloquium.
- A process for submission to the repository to be developed (see Appendix B).
• The creative commons license statement to appear wherever the adapted MERLOT criteria are written (i.e. on the PATHE database, PATHE website, instructions for reviewers etc)

• A ‘disclaimer-style’ text to be developed to protect the privacy of students or other individuals who are featured in the submitted resources. This ‘disclaimer should be checked by a legal expert. The database moderator should assure these ethics guidelines are met.

• Depending on the future resource demands of Foundations facilitators, an evaluation of the seven ‘big ideas’ to occur every 4-5 years during the colloquium.

References


Littlejohn, A. & McGill, L. (20xx) Detailed report for e-learning and pedagogy research study: effective resources for e-learning
Appendix A – Metadata template for TSLD
TLSD database http://aragorn.scca.ecu.edu.au/tsldb/

Fields for metadata:

- Resource Title
- Teacher’s name
- Teacher’s email
- Institution
- Brief description
- Advantages of use (rationale) (e.g. What is it? How do you use it? Why do you think it works? How have you adapted it?)

- Type
  - Reference/Text
  - Podcast
  - Workshop activity
  - Case Study
  - DVD
  - Website
  - Video
  - Other (please specify)

- Transferability (i.e. can it be applied in all contexts? Or is it institution-specific?)

- Staff
  - Sessional
  - Ongoing
  - Offshore
  - Other

- Scope
  - Small task (10-15 minutes)
  - Session filling activity (1-2 hours)
  - Module-related task (e.g. 3 or 4 weeks, depending on the module)
  - Program-related task (e.g. 10-12 weeks, spanning the entire program)
  - Other (please specify)

- Category
o Reflective practice and continual improvement (including teaching portfolios);

o Understanding the role of assessment in learning (including grading student work);

o Student focused teaching (including knowledge of learning theories and implications for teaching);

o Awareness of diversity in student cohorts and implications for teaching (including ethical issues);

o A scholarly approach to teaching and learning;

o The development of a community of practice;

o Teaching skill development;

• Resource addresses a different topic (please indicate topic)

• Mode of use
  o Face to face
  o Online
  o Offshore
  o Other

• Special resources required (List any special resources such as computer lab, specific software)

• Rights holder(s)

• Creative Commons
  o This work is licensed under a Creative Commons Attribution - Noncommercial - No Derivatives 3.0 License.

• Additional comments

• Resource
  o The link could go to the resource itself on a third party web site.
  Alternatively this might link to a pdf of the actual resource, or a more detailed description of how to use it stored in the repository. Where this is the case and additional documents are stored in the repository, they should be appropriately branded with the Institution’s logo.

• Supporting documentation (e.g. word docs, PDFs, websites with instructions or additional material)

• Comments – Interactive space for users’ comment (and encouragement to comment on Strengths/areas for improvement/how it can be adapted)
Appendix B – Process for submitting new resources

1. Where does the invitation to be a reviewer sit? On PATHE website or on Resources?

2. Where do the instructions for how to submit, the guidelines for writing up a resource sit?

3. The form to fill in is on the PATHE database at ECU.

**PATHE resources database** (located on PATHE project website at Bond)

**Description and link to PATHE**

**ALTC Xchange**

**LISTSERVE**

**Foundation colloquium website**

**Project**

**Group**

**Resource**

**PATHE group**
Appendix C – Overview of Colloquium Session

Preparation of Academics for Teaching in Higher Education (PATHE) Resources Subproject

Colloquium session: Resources supporting the teaching in Foundations program
11 am - 12 noon, Tuesday 30th September, 2008

Abstract
Considerable time is invested in developing Foundations programs and keeping them up to date. This sub-project seeks to identify and make available resources to support this practice. The intention is to:

- identify and select resources currently used in Foundations programs;
- develop a mechanism for sharing resources;
- identify any gaps in resources.

As a community of practice we are very good at sharing informally and adopting and adapting ideas from our colleagues for our own Foundations contexts and needs. This subproject seeks to support that process and at the same time acknowledge the contributions by individuals and teams in the Foundations community.

A review of the documents produced in the earlier stage of the PATHE project has identified a number of ‘Big Ideas’ in Tertiary Teaching that are taught across most Foundations programs.

This workshop is designed to

- find out what resources you use in your Foundations programs to teach these ‘Big Ideas’, why you think they work and your willingness to share them.
- identify areas where you have a need for resources or are planning to develop resources.

What’s in it for you? Opportunities to

- get acknowledgement for the work you have done in relation to developing, adopting and/or adapting resources for use in a Foundation program;
- see how others use and adapt resources;
- share the resources you have developed, adapted, and tested.
- access to other people’s good ideas.