



Not for publication

NETWORKS

PROGRESS REPORT – February 20, 2012

Chemistry Discipline Network

Lead institution:
Queensland University of Technology

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Please refer to the document [Project Management Information](#), available on the ALTC website, <http://www.altc.edu.au> for information on completing and submitting reports.

1 Progress against specified outcomes and deliverables

The project officer (James Mitchell Crow) has worked hard to increase our membership and we now have 87 members, representing 39 universities (all Australian universities that teach chemistry).

Four working groups have been formed:

- Website, chaired by Dan Southam (Curtin)
- Threshold Learning Outcomes (TLOs), chaired by Brian Yates (UTas)
- Resources, chaired by Siggie Schmid (Sydney)
- Mapping, chaired by Madeleine Schultz (QUT).

Each of these has made some progress, as follows:

- The website has been created (chemnet.edu.au) and new functionality is being added after surveying of the community. There are currently 35 registered users, representing 23 universities.
- The TLO group has begun work seeking institutions willing to pilot the use of the ALTC TLOs to map their chemistry degree.
- The resources group is developing the interface to allow learning objects to be added to the website.
- The mapping group has begun a pilot study, mapping all the chemistry taught at Australian universities. The pilot includes 7 universities, of which one is so far complete.

2 Review of progress

A major goal of the network is to be visible and we have achieved the following:

- We were featured in a full page article in Chemistry in Australia, the news magazine of the Royal Australian Chemical Institute. This resulted in two new people contacting the project officer about the Network, as well as generating discussion at universities that already had a member.
- We are co-organising a special issue of the Australian Journal of Education in Chemistry with the theme Exploring the Benefits of Networks in Tertiary Chemistry. Several important international network leaders have agreed to contribute articles and the issue is also open to submissions. The issue is due to appear in July. The process of inviting these international leaders in chemistry networks has achieved several purposes: they are aware of our Network, and we are more involved with their Networks. This includes IonicViper in the US and the UK Physical Sciences Centre, as well as the European Chemistry and Chemical Engineering Education Network. We hope to benefit from their experiences and learn from their challenges (see below).
- We are sponsoring a symposium to be held during the RACI Chemical Education Division conference in Adelaide in July on Benchmarking and standardised exams. Prof. Tom Holmes from the American Chemical Society Examinations Institute has agreed to be our plenary speaker. This symposium will include both tertiary and secondary educators, and some experts in benchmarking at the secondary level have also been invited.

2.1 Major achievements against schedule/network brief

Each of the working groups is achieving a specific goal of the network. However, the most important role of our Network is simply to allow the natural interactions that occur when people speak to one another within their teaching roles. For example, during meetings members have shared some of their frustrations and strategies in dealing with poorly prepared undergraduates. Others have shared practical

laboratory exercises and discussed their strengths and weaknesses. We are communicating within the community of chemistry academics in Australia and now we know who is going to which conference, we can more easily find others to collaborate on grants (such as the new OLT grants) and can share our experiences both in teaching and the scholarship of teaching and learning.

2.2 Lessons learnt

Everyone in the Network has a job so we are all very busy. It can be difficult to get people to do the tasks they have volunteered for, even though everyone has good intentions. Making a phone call is always more helpful than sending yet another email. The project officer has been invaluable in getting things moving and maintaining momentum.

2.3 Challenges met

The biggest challenge for our Network is the tyranny of distance. More face to face meetings will help a lot with progress. Some of the major achievements have occurred because people happened to be visiting other institutions and were able to arrange a face to face meeting.

We have solved the technological problems for skype meetings and have had up to 17 people participate in a meeting together.

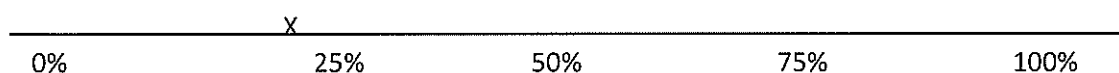
The development of the website to allow uploads and downloads has taken more time than anticipated. It has been challenging to liaise with some of the other groups (such as conference organisers) to make sure we are clear about our goals for the Network.

As described above, the Network is maintaining informal connections (and watching developments) with similar groups such as those listed above. In particular, the UK Physical Science Centre, has suffered severe funding reduction resulting in much reduced support for the discipline / subject centres. The status of the materials already gathered into various repositories to be available online and their future management is of much interest to our Network as we seek to establish the best way to sustainably provide for sharing teaching experience, methodology and developed materials.

2.4 Indicate if and how these challenges will impact on the outcomes, the timeline or the budget? Please specify.

No changes required.

2.5 In terms of the planned deliverables, what is your estimation of how far the network has progressed? Please indicate percentage below.



3 Formative evaluation

3.1 What formative evaluation processes are being used?

We are using a formal evaluation framework in the development of the website. The first iteration of data collection consisted of a series of open-ended questions that garner a series of needs for the online virtual community. The second iteration consists of a series of Likert scale questions drawn from the

qualitative responses to the first iteration, and will attempt to rank the importance of each component of the community. The subsequent iterations will attempt to refine the responses and assess the efficacy of the outcomes using Likert and open-ended questions. Curtin University administers human ethics concerns relating to data collection for development of the website (project number: SMEC 106-11). A “nuts and bolts” session was held at the Australian Conference on Science and Mathematics Education in Melbourne in 2011, also seeking input into desirable characteristics of the website from the community.

Other evaluation of our Network is informal, consisting of on-going discussions within the Network. Will Rifkin is a member of our Network and is on the steering committee of SaMnet (the Science and Mathematics educators network), so his input is particularly valuable.

For 2012 we plan to establish a reference group, including some of the international Network leaders mentioned above, to provide more comprehensive formative evaluation.

3.2 What have you learnt from these processes thus far?

The expectations of the community of the Network are still relatively low and we hope to exceed them once the website has the functionality required for full engagement.

4 Networking

Date of event	Event title and location	Brief description of the purpose of the event	Number of participants	Number of Higher Education Institutions represented	Number of other institutions represented	Brief description of the outcomes of the event
Sep 29, 2011	ChemNet first meeting (Melbourne)	To introduce the idea of ChemNet to members of the chemistry academic community and encourage people to join	31	20	none	We had a wide-ranging discussion about ChemNet and many people were enthusiastic to join
Nov 30, 2011	skype meeting	to update members on progress and keep communication channels open	8	7	none	reports from working groups, discussion of plans
Jan 10, 2012	Dan Bedgood visit to Brisbane	mapping pilot design	3	2	none	design of mapping spreadsheet, discussion of ChemEd Symposium
Jan 25, 2012	skype meeting	to update members on progress and keep communication channels open	17	15	none	reports from working groups, 5 more universities taking on pilot study
planned	skype meeting					reports from working groups, discussion of plans
last Wednesday of each month	skype meeting					
July 1-4, 2012	ChemEd conference, Adelaide	symposium on benchmarking and standardised exams			none	

5 Certification

Certification by Network Coordinator

I certify that this is an accurate representation of the progress of the project.

Network coordinator: Madeleine Schultz

Signature:  Date: 20/2/12

Certification by DVC/PVC (Academic), or equivalent, or their official delegate

I acknowledge submission of the Progress Report

Full name:.....

Position:.....

Signature:..... Date:.....

Please send report via email: learningandteaching@deewr.gov.au