

Office for Learning and Teaching

Networks

Progress Report – February 2013

Chemistry Discipline Network SI11-2118

Queensland University of Technology

Dr Madeleine Schultz

Queensland University of Technology
madeleine.schultz@qut.edu.au

Dr Glennys O'Brien

University of Wollongong
gobrien@uow.edu.au

Please refer to the document *Project Management Information*, available on the OLT website <http://www.olt.gov.au/grants-and-projects/project-management> for information on completing and submitting reports.

1 Progress against specified outcomes and deliverables

Since our Stage 1 report in September 2012, we have increased our membership further to 130 members representing 37 Australian and 4 international universities. We realised that our members are our greatest resource and have developed a way to share our teaching strategies and information through a spreadsheet of members indicating interests and expertise; the spreadsheet has been released to the membership. We have held two further workshops (December 12, 2012 and February 4, 2013) with attendance of 15 and 25 of our members, respectively, to discuss making concrete standards from the chemistry TLOs. A paper detailing our first 12 months of operation has appeared in a special themed issue of the Australian Journal of Education in Chemistry, which Co-Director Madeleine Schultz guest edited. The theme of the special issue was the benefits of networks in tertiary chemistry education, and contributions from 4 international network leaders were also in the issue.

2 Review of progress

The progress is very healthy and the Network is moving towards its final months with the ability to deliver on most of its aims.

2.1 Major achievements against schedule/network brief

The workshops held at the University of Sydney on December 12 and February 4 were extremely vibrant and productive, with energetic discussion in small groups on aspects of refining and using the TLOs. Further workshops, likely in May, are planned with funding from other sources.

The special issue of the Australian Journal of Education in Chemistry gave us more publicity within Australia, as well as ensuring that related international networks are aware of our work.

Recent monthly meetings have included active participation from isolated members from regional universities and campuses.

The preliminary TLO mapping of the full chemistry degree at four universities is close to completion and should be released before the end of May.

2.2 Lessons learnt

We have learnt to accept all opportunities that come our way, and that it may not be the most direct route that leads members to productive output within the Network. Several newer active members were first contacted through the workshops, which were advertised as widely as possible. We have also had articles published in Chemistry in Australia (the magazine of the Royal Australian Chemical Institute) and the newsletter of the Higher Education Research and Development Society of Australasia. All of this publicity is valuable for the growth and work of the Network. We learnt that expecting members to log in to the website to share their expertise was optimistic and instead we have now shared a spreadsheet of our interests and contact information so that people who wish to access knowledge can contact others directly.

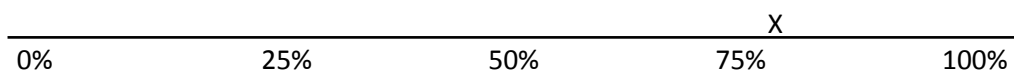
2.3 Challenges met

It has been difficult to include all management committee members in the latest meetings, and this difficulty will continue with one member (Brian Yates) taking on a new role at the ARC. It has also been very time consuming organising the large face to face meetings with many interstate members attending. The project officer has been working hard to keep on top of the administrative matters, such as reimbursements and bookings.

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

No expected impacts, although the further contributions of Brian Yates will be limited.

2.5 In terms of the planned deliverables, what is your estimation of how far the network has progressed?



3 Formative evaluation

3.1 What formative evaluation processes are being used?

We are using informal discussions with the wide variety of members from a diverse range of institutions, during meetings and by email. At the monthly skype meetings, new participants are asked to explain their motivations for attending. The ensuing discussions give an excellent barometer of the value of the Network.

3.2 What have you learnt from these processes thus far?

It is clear that while the recent thrust of the Network has been around the TLO to standards work, this is not the most important aspect of the Network for some of our members. The main value of the Network for many of our members is as an informal space to discuss ideas and philosophies about teaching chemistry and our teaching challenges in our various institutions. It has also been useful to see the increased understanding of SoTL from some of our members and a broader range of people involved in applying for T&L grants (including from the OLT). Thus we have learnt to keep our minds open about what the Network is.

4 Networking

Date of event	October 3, 31; November 28; January 30, Feb 27
Event title and location (city only)	regular monthly skype meetings
Brief description of the purpose of the event	to update members on our activities and obtain feedback on their views of the Network, informal discussions
Number of participants	8 - 12
Number of Higher Education Institutions represented	8 - 12
Number of other institutions represented	none
Brief description of the outcomes of the event	on-going work of the Network, organisation of workshops, dissemination of results of workshops, increased communication between institutions, conference participation and symposium sponsorship discussion

Date of event	December 12, 2012
Event title and location (city only)	TLO to standards workshop, Sydney
Brief description of the purpose of the event	to articulate the concepts and principles of chemistry for TLO 2.1 with a broad participant base and ownership from the chemistry academic community
Number of participants	15
Number of Higher Education Institutions represented	12
Number of other institutions represented	none
Brief description of the outcomes of the event	this meeting focussed entirely on the body of knowledge (TLO 2.1) as expressed in eight phrases or "big ideas" in the first of the TLO explanatory notes (p24 appendices, LTAS Sci). To flesh these out, a two tier structure was envisaged where a series of 4 or 5 points was required to underpin each of the big ideas. Thus the four discussion groups each thrashed out 4-5 points as a set of enduring understandings (Holme T. 2012. J Chem Educ 89, 715-720) which would be regarded as threshold for each of the big ideas. Common ground among the groups was evident in the resultant tabulated points.

Date of event	February 4, 2013
Event title and location (city only)	TLO to standards workshop, Sydney
Brief description of the purpose of the event	(i) coming to agreement on the 4-5 statements for each big idea from the December 12 workshop, (ii) considering how to express these as standards to be met and (iii) considering how to evidence achievement or competence for each of the statements and big ideas
Number of participants	25
Number of Higher Education Institutions represented	19
Number of other institutions represented	none
Brief description of the outcomes of the event	This day continued from the 12 th Dec discussions, taking the two tier commentary gathered and refining this into what, with final editing, will be an agreed set of two tier statements covering the "body of knowledge" TLO 2.1. These statements are being generated with the understanding that alterations and possible additions of other principles in the future are not excluded. In the afternoon, discussion focussed on the ways and means of assessing or demonstrating that students have achieved the outcomes and to what level. Thus the focus shifts to assessment and levelling. The "body of knowledge" TLO 2.1 statements will be distributed widely and the next discussions are currently being planned.

Date of event	February 22, 2013
Event title and location (city only) (Melbourne)	ACDS Advancing the Science TLOs meeting
Brief description of the purpose of the event	(i) coming to agreement on the 4-5 statements for each big idea from the December 12 workshop, (ii) considering how to express these as standards to be met and (iii) considering how to evidence achievement or competence for each of the statements and big ideas
Number of participants	48
Number of Higher Education Institutions represented	25
Number of other institutions represented	none
Brief description of the outcomes of the event	Participants addressed the current state of the Science TLOs to standards and assessment process. The workshop was opened with global perspectives discussed by Prof Alan Robson, Higher Education Standards Panel. All science disciplines were represented, sharing their activities, progress and outcomes to date. The five ChemNet members attending gained much from the commentary and shared experiences. Some of the processes used by other disciplines are clearly worth consideration by the TLO working party for possible adaptation and use. Further collaborative work on more generic TLOs is still some way off, as all the discipline groups work on the more discipline specific TLOs. This type of collaboration will be supported by the ACDS Learning Centre. One very informative activity was an evaluation of an assessment, with participants considering both the assessment task and the students' responses and the match to specific TLOs. This provided us all with some insight into design / processes necessary to ensure assessment fit for purpose.

Planned events over the next six months.

Date of event	Mar 27, April 24, May 29, June 26, July 31, Aug 28
Event title and location (city only)	regular monthly skype meetings
Brief description of the purpose of the event	to update members on our activities and obtain feedback on their views of the Network, informal discussions
Number of participants	8 - 12
Number of Higher Education Institutions represented	8 - 12
Number of other institutions represented	none

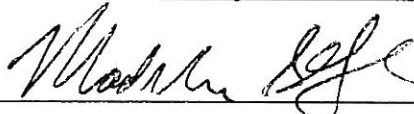
Date of event	May (TBA)
Event title and location (city only)	TLO to standards: assessment, Sydney

Brief description of the purpose of the event exemplars	to work from the TLO work to assessment
Number of participants	ca. 20
Number of Higher Education Institutions represented	ca. 20
Number of other institutions represented	none
Date of event	July 3 - 5
Event title and location (city only)	Eurovariety in Chemical Education Conference, Limerick, Ireland
Brief description of the purpose of the event	dissemination of our Network's activities
Number of participants	100
Number of Higher Education Institutions represented	30
Date of event	June 9 - 14
Event title and location (city only)	Gordon Research Conference on Chemical Education Conference, Rhode Island
Brief description of the purpose of the event	dissemination of our Network's activities
Number of participants	100
Number of Higher Education Institutions represented	30
Date of event	September 19
Event title and location (city only)	Discipline Day of ACSME meeting, Canberra
Brief description of the purpose of the event	general Network meeting
Number of participants	35
Number of Higher Education Institutions represented	30

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: 5.3.13

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

I acknowledge submission of the Progress Report.

Full name: Stephen Towers
 Position: A/ Deputy Vice-Chancellor (Learning and Teaching)
 Signature:  Date: 6/3/13

Please upload to the OLT Portal: [Portal Log-in](#)

Financial statement of acquittal of funds

All expenditure reported in whole dollars, exclusive of GST.

	Stage 1		
	Budget \$	Actual \$	Balance \$
Personnel			
Project officer	52500	44601	(7899)
Sub total			(7899) ¹
Network support			
Printing/publishing	1400	400	(1000)
Website costs	2100	743	(1357)
Sub total	3500	1143	(2357) ²
Network activities			
Member travel	14000	25421 ^{3,4}	11421
Sub total	14000	25421	11421
Institutional overhead levy			
Sub Total			
Total Stage 1	70000	71165	1165

Footnotes:

1. The project officer was not recruited until part-way through the project's first year, and originally received a lower salary than was budgeted for
2. Project support costs were lower than anticipated
3. As it became clear that personnel and network support costs would be lower than originally anticipated, we were able to offer additional travel support for members from across the country to attend the TLO discussion days held in Sydney on 12/12/12 and 04/02/13
4. Of this figure, 15041 has been paid, and we are awaiting invoices for a further committed 10200