

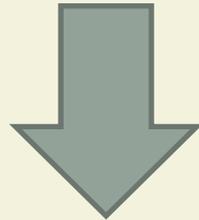
Disseminating scholarship of teaching and learning: using grass roots networking to share research and influence practice

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A study of how mathematicians and statisticians access information about teaching

- The information needs of mathematicians and statisticians
- Their preferred methods of accessing information
- The type of information they currently access



- How these can inform dissemination of SoTL



Why?

FYiMaths findings www.fyimaths.org.au

Information and expertise of peers was considered very important

But

many did not actively seek out information about teaching practices.

Master of Information Management at RMIT

Interviews with mathematicians and statisticians

- 13 semi-structured interviews with 11 mathematicians and 2 statisticians in Australian universities. Included early, mid and late career academics.
 - Across Australia including Go8, ATN, IRU and regional institutions.
 - Semester 2 2014.
- Questions about background in teaching, approaches to looking for information about teaching, reasons for needing information, sources used, relevance/usefulness.

Literature

- **Availability of resources** is one of key elements of effecting change in teaching and learning initiatives (Southwell et.al, 2010)
- **Knowing what didn't work is useful**, but won't usually be found in academic articles (Southwell et.al 2010)
- SoTL includes a **range of activities** that make up a shared teaching commons (Bennet & Dewar, 2012)

Literature cont.

- ‘linked their practice **very rarely to teaching and learning publications** ... sometimes to ideas from courses and workshops and often to the influence of colleagues’ (Viskovic, 2006, p.330).
- **Informal conversations** provide reflection and feedback and are significant source of information about teaching. (Thomson, 2013)
- **Developing teaching is a low priority for many and there has been little work done** in Australia on ‘scholarly approach to teaching a discipline’ (Probert, 2013, p. 39)

Perspective

- Patterns of *information seeking behaviour* help guide development of information services and resources.
- *Social learning* occurs at many levels and is recognised as an important aspect of professional development and capturing tacit knowledge.
- *Communities of practice* theory identified that social groups were the foundation of social learning.

Findings

All.....

- Teaching was learnt on-the-job, with limited formal training.
- People are the main source of information.
- Presentations are the preferred methods of accessing information.

Most.....

- Limitations on time prevented seeking information.

Some....

- Scepticism of the value of some information.

Learning on the job

- **Workplace culture shaped approach to teaching which developed through a process of trial and error, with some receiving more support than others.**
- *‘thrown in the deep end’*
- *‘if you sink, you sink’*
- *‘if you have experienced it (teaching) you can do it’*
- *‘the conversations (in the staffroom) were all about who was teaching what and how the students were going’*
 - *‘I inherited a lot from the local departmental culture’*

People as a source of information

- Colleagues, mentors, researchers in related fields, presenters at conferences and workshops, experts and supervisors.
 - **Accessible**
 - *'most people in a university will be relying on their colleagues ... finding out who might have done something a bit differently through word of mouth'*
 - **Reliable**
 - *'people appreciate other people's viewpoints'*
 - **Timely**
 - *'Eric Mazur came to give a lecture.... I saw the opportunity to implement something similar'*
 - **Relevant**
 - *'go into other universities and talk to them to find out what they do in their teaching.'*

Listening rather than reading

- Strong preference for attending presentations, over reading articles, such as seminars, conferences, workshops (both multi-disciplinary and mathematics specific)
- Easier and more efficient use of time
 - *'I find it a lot more useful if I go along to these workshops... better than browsing a website and hoping that there is going to be something there'*
- Visible and accessible
 - *'we pick up things along the way'*

Limitations

- **No need or interest in** researching teaching, rely on experience.
- **Lack of time** to actively research teaching practices or review current literature, even when they had keen interest and knew where to find relevant articles, they did not have time to read them.
 - *'I don't often get time to read articles, I wish I did.'*
- **Not knowing where to look**
 - *'I don't know where to look'*
 - *'it's that starting point that is really hard'*

Skepticism of value

- **Expectations of research not met** - Some (5) were concerned that research they had read was not evidence based.
 - *'it is not serious scholarship, it is really just sharing information'*
 - *'in science we would do control testing, but in education it's very difficult to do anything like that.'*
- **Not applicable for mathematics.**
 - *'a lot of things had no applicability to mathematics, and particularly maths taught in large courses'*
 - *'that's not transferable to my situation because I've got these rules and regulations'*

Conclusions

- The **information seeking behaviors** of mathematicians reflect strong interest in peer learning and mentoring.
- These are **ideal conditions for establishing communities of practice**, within schools/dept, institutions or disciplines.
- **Informal exchanges** of information are significant so networking should be supported.
- **Popularity of presentations** is related to having direct contact with researcher/peers.

Conclusions

- **Tackling limitations** of current SoTL dissemination
 - **Provide a starting point** for access to evidence based, discipline specific research.
 - **Presentations** at institutions, workshops or conferences are a key networking opportunity.
 - **Present research in accessible and practical formats.**
 - **Circulate widely**, via email lists, key websites and peak discipline organisations.
 - **Research that is evidence based** and clearly presented has more impact.

Questions

- How do other disciplines access information about teaching practices?
- How can professional development in university teaching improve access to current research and innovative teaching practices?
- Can university libraries play a role in providing access to SoTL resources?

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