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Peer Assisted Teaching Scheme – A way of creating, sustaining and developing new connections

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This paper outlines the Peer Assisted Teaching Scheme (PATS) that was trialled across seven faculties at Monash University, and supported by a 2010 ALTC Teaching Fellowship. The Scheme aims to build peer assistance capacity in faculties to improve student satisfaction of units. It achieves this by embedding Brookfield’s four lenses to engage teachers in a process of critical reflection and builds on the current research that highlights the benefits of Peer Assisted Learning (PAL) and mentoring programs but applies it to academic staff themselves. Data for this study was gathered using focus groups and written descriptions of the partners collective experience. A thematic analysis was applied to analyse the data. Findings illustrate the efficacy of PATS activities to create, sustain and develop new connections, and foster a culture of improving teaching and student learning.

Keywords: Peer Assisted Teaching, Building and sustaining connections

Introduction

The quality of teaching and learning in universities has recently become an important item on the Australian government’s agenda for higher education. Initiatives such as the establishment of a standards panel, creation of the Tertiary Education Quality and Standards Agency (TEQSA), and the introduction of compacts highlight its significance. The standard panel is charged with the development of new standards to underpin quality in higher education, TEQSA is the agency that will ensure quality is monitored and standards are met, and funding for institutions will be determined, in part, by the measurement of graduate satisfaction with teaching (DEEWR, 2011). As a result of these government measures there has been an increase in teaching quality initiatives, including the development of formal and informal programs aimed at improving teacher effectiveness (Ling, 2009) and the regular evaluation of courses, teaching, teachers and units.

The practice of evaluating teaching and courses in higher education is now widespread. Universities routinely evaluate courses, their teachers and units, and as the practice has grown a substantial literature has developed. Research studies have included: discussions around student evaluations of teaching from a multidimensional perspective (Marsh & Dunkin, 1997); a comparison of the ‘myths’ to the ‘actual facts’ surrounding student evaluations (Aleamoni, 1999) and surveys to identify features of exemplary teaching Feldman (1996, 1997, 2007). Although there is some concern in the academic community about the use of such surveys, there are studies that show that course evaluation questionnaires provide reliable and valid measures of teaching effectiveness (Marsh, 1987, 2007; McKeachie, 1997). Confidence in these instruments has led to individual teachers and units being evaluated by Student Evaluation of Teaching and Unit (SETU) instruments on a regular basis. Results collected from SETUs are analysed to provide a “snapshot” of students’ perceptions of their teachers, the unit and their learning. Typically,
students rate a unit on a five point Likert scale, and are given the opportunity to express the best aspects of the unit as well as areas for improvement. For units that rate poorly there is little, if any, central support that can be continuously sustained without considerable financial strain. In Australia, the predominant model to support academics with their teaching is via centrally delivered programs, though some faculties, usually those that are well funded, may have one or two staff specifically appointed to support teacher training. Centrally delivered programs are usually designed for early career teachers so they often neglect the needs of non-early career teaching staff that have performed poorly on their unit evaluations. Generally, these programmes do not include discipline specific content nor do they provide individual, tailored, and on-going support to faculty staff.

This paper describes a Peer Assisted Teaching Scheme to 1. improve teaching and unit quality, measured via student evaluation results, and 2. to build leadership capacity amongst academics using currently recognised outstanding teachers. A synthesis of the current research that offers tools and practices to support good and excellent teaching provides a framework for PATS. This includes: Stephen Brookfield’s (1995) four lenses for critical reflection, the benefits of peer assisted learning (PAL) (Ashwin, 2003) and peer mentoring programs (Gratch, 1998; Hall, Smith, Draper, Bullough, & Sudweeks, 2005; Leidenfrost, Strassnig, Schabmann, Spiel, & Carbon, 2011).

PATS integrates Brookfield’s (1995) four lenses to engage teachers in critical reflection on practice. Brookfield’s lenses provide different perspectives on one’s teaching, ranging from systematic self-reflection, reflecting on student feedback, engaging in peer observation, and learning from scholarly literature. The ‘self lens’ requires teachers to focus on their experiences as a teacher in order to reveal aspects of their pedagogy that may need adjustment or strengthening; the ‘student lens’ requires teachers to engage with the student feedback and become more responsive teachers; the ‘peer lens’ requires teachers to liaise with colleagues to generate innovative solutions to teaching problems; and the ‘scholarly literature lens’ exposes academics to vocabulary for teaching practice, and offers different ways to view and understand their teaching. PATS provides a framework in which academics can cogitate upon these processes as a foundation for good teaching and as the means to becoming an excellent teacher.

Apart from using Brookfield’s perspectives to critically reflect on practice, two other key components of the scheme are the element of mentoring by a colleague and peer support to develop and enhance learning. Gratch (1998) explores the positive relationship that develops from mentors and beginning teachers, and Hall et al. (2005) highlight the positive contribution of peer mentoring for academic success. Boud (2001) argues that peers can help each other to negotiate new directions and to present their developing ideas and arguments. Topping (2001) also claims that active support among status equals or matched companions is essential for peer assisted learning and the acquisition of knowledge and skill. Arendale (2004) concludes that peer cooperative learning programs that embed study strategy practice within their activities have demonstrated higher student outcomes including increased student persistence towards graduation. Many studies have indicated that PAL can be situated across the broad spectrum of the higher education disciplines including nursing (Loke & Chow, 2007), medicine (Hodgson, 2009) and mathematics (Cheng & Walters, 2009). Given these insights into PAL, it does not seem unusual to take elements of PAL and apply them to teachers themselves, so that participants can improve teaching whilst building and sustaining connections.
Peer Assisted Teaching Scheme

The original PATS process was introduced by Carbone (2011) and has since been refined as outlined in Figure 1. PATS is a developmental process in which two or more colleagues, within a faculty, collaborate to improve the quality of a unit. Partners work together setting goals for improvement in the unit. Using a collegial approach, strengthened through a series of centrally delivered workshops and informal discussions over coffee, the partners develop strategies to achieve the set goals. Informal student feedback and peer observations are used during the semester as tools to teachers unravel their practice.

Details of the PATS process are provided below:

- **Recruitment/Partnerships**
  Engagement formally in the scheme will commence through the normal practice of identifying units within faculties that need improvement and those which have are meeting aspirations. Once two academics from the same faculty agree to take part in the scheme they are partnered. Typically one of the academics is recognised as an outstanding teaching, such a partnering offers a pathway for recognised high quality teaching academics to lead improvements in learning and teaching within their schools and institutions – a key recommendation in Israel’s (2011) ALTC National Teaching Fellowship report.

- **Sessions with the Fellow**
  An initial briefing between the teaching fellow and the participants takes place prior to the semester. During this briefing session, an overview of the scheme is presented with the roles and expectations of the mentor/mentee relationship clarified.
  A mid semester meeting occurs with the fellow to discuss progress. This is followed by a debriefing session at the conclusion of the semester, which covers the appropriateness of the process and activities, the participants’ experiences, and ways to improve the scheme for future participants. The Teaching fellow introduces the scheme but can then provide Faculties with the tools and structure to embed the scheme in the faculty. Once it is embedded, the Teaching Fellow can be replaced by academic from within the faculty or a central learning and teaching support unit.

- **Meetings/Interactive activities**
  Partners meet on several occasions. To encourage participation in these meetings faculties provide partners with incentives (e.g., coffee vouchers) to facilitate discussions. These meetings are an opportunity for academics to share and develop their theory and philosophy about teaching and learning in higher education as well as cover the activities...
involved in PATS. The PATS activities have been designed to help academics through the process of improving their unit. The *PATS Participant Instruction Workbook* (PATS website, 2011) provides step-by-step instructions with each task carefully chosen for the purpose of guiding academics through their journey of improvement. Partners are requested to work on activities prior, during and after the semester.

- **Workshops**
  Initially three PATS workshops were organised that included: *Planning your Teaching, Interactive Lecturing, Peer Observation of Teaching*. Later, a new unit was developed as part of the teacher preparation program in which participants received an invitation. In these workshops academics are exposed to the literature and engage further with the material by participating in peer discussion. Discussions require academics to review studies and comment on its implications for learning and teaching practice.

- **Deliverables**
  Partners are expected to produce four deliverables, these include: a *strategy plan* – identifying issues to be addressed and how they will be addressed, a *summary of student feedback* – areas of improvements suggested by the current cohort of students, a *peer observation of teaching* – a summary of good practice observed and other issues that need attention, a *critical reflection piece* – a personal summary reflecting on achieving the goals for improvement

- **Rewards and Acknowledgements**
  Each faculty determines its own incentive for participation in PATS. Apart from small incentives such as coffee vouchers issued to each participant to encourage regular meetings, additional incentives include time relief to participant and financial rewards.

**Viewing PATS through Brookfield’s lenses**

The PATS Scheme provides a framework in which participants can interrogate unit evaluations, student and peer feedback, and personal goals and outcomes, to reveal aspects of their pedagogy that may need adjustment or strengthening. This is achieved by aligning PATS tasks with Brookfield’s four perspectives on reflective teacher practice: *self, students, peers and theoretical literature*.

**The ‘self’ lens**

According to Brookfield, the self lens, is the foundation of critical reflection. Opportunities to reflect are embedded in the three pre-semester task and the two post semester tasks. Each pre-semester task is designed to sharpen the academic’s focus and get them organised and prepared to make changes to their units. The two post-semester tasks provide academics with an opportunity to reflect on their plan and progress so these can be incorporated into their professional development plan. The self lens could be strengthened if academics kept a weekly journal entry. Although this is advised, it is not made mandatory.

**The ‘student’ lens**

For Brookfield (1995), the *student lens* “helps us teach more responsively. Knowing what is happening to students as they grapple with difficult, threatening, and exhilarating process of learning is of the utmost importance; without this foundational information it is hard to teach well” (p. 35). Both self-reflection and engaging with student feedback reveals teaching habits that may need adjustment. In PATS, academics collect informal feedback from their students, following the four step process:-
1. Decide how to gather informal student feedback
2. Gather feedback
3. Discuss feedback with your mentor
4. Deliver a summary of feedback back to the students

Partners initially discuss how they will collect feedback from their students. The feedback collection can be via an online survey or handwritten during the class. Brandenburg (2010) provides many strategies in which to collect and use informal student feedback. Partners discuss students' responses and considered what can be addressed/improved, and what remains unchanged. Collaboratively they develop a summary of the feedback and deliver the key challenges back to the students in a sincere manner at the start of the next lecture.

The ‘peer’ lens
Excellent teachers look to peers for mentoring, advice and feedback. For Brookfield (1995), “our colleagues serve as critical mirrors reflecting back to us images of our actions that often take us by surprise” (p. 35). Peers can highlight hidden habits in teaching practice; suggest innovative solutions to teaching problems and “provide us with a great deal of emotional sustenance” (Brookfield, p. 36). In PATS, partners conduct a peer observation of each other’s teaching during the semester using one from a choice of peer review instruments (Bell, 2010; Rowe, Solomonides, & Handal, 2010; Danseath, 2010). Partners follow a four stage process:-

1. Decide what to observe
2. Perform a peer observation of teaching
3. Discuss observation with your peer
4. Produce a joint statement

Deciding what to observe occurs during an initial discussion between the partners about the nature and aims of the activity so both can benefit from the experience. The observer records their observations about the various interactions between the teacher and the students. Following the observation, the observer provides feedback in the form of constructive criticism and suggestions for improvements. To conclude, a short summary containing a log of who was observed by whom, a good practice observed and any other issues.

The ‘theoretical literature’ lens
The fourth lens to foster critically reflective teaching is by engaging in the scholarly literature. Brookfield believes that teachers, who research, present or publish scholarly literature display an advanced vocabulary for teaching practice. He claims that “studying theory can help us realise what we thought were signs of our personal failings as teachers can actually be interpreted as the inevitable consequence of certain economic, social and political processes” (Brookfield, p. 36). An engagement with both colleagues and scholarly literature clarifies the contexts in which they teach. To engage academics’ in the scholarly literature three PATS workshops were included-

• Interactive lecturing - introduces participants to the concept of ‘interactive learning’ between themselves and addresses a condition called ‘lecturalgia’ (painful lecture), which McLaughlin and Mandin (2001), have described as “a frequent cause of morbidity for both teachers and learners”.
• Planning your teaching - introduces the core components of a teaching plan and the process for developing a plan for teaching, including Bloom’s taxonomy (Bloom, Englehart, Furst, Hill, & Krathwohl, 1956) to provide a framework for planning units to incorporate low
to high-level thinking activities; Biggs’ (1996) constructive alignment to align teaching, assessment and learning objectives, and Biggs’ SOLO Taxonomy (Biggs, 1982) to map levels of understanding to the intended learning outcomes, and to create the assessment criteria or rubrics.

- **Peer observation of teaching workshop** - provides support to potential reviewers and reviewees. It aims to develop teaching practice through undertaking all phases of peer observation of teaching. Several guides are introduced as a resource for peer observation, including HERDSA guide “Peer Observation Partnerships in Higher Education” (Bell, 2005), and “How to collaborate with Peer Observation: Learning from each other” (Rowe et al., 2010)

**Method**

This section outlines the project context and the data collected. The scheme was piloted in 2009 in the Faculty of Information Technology (IT) at Monash University with IT units and academics. It was used to determine whether unit evaluations would improve for units needing critical attention. Improvements in unit evaluation results and the general success of the scheme led to the project being supported by an Australian Learning and Teaching Fellowship (2010,) extending it to all faculties at Monash. The project was approved by the Monash University Standing Committee on Ethics in Research involving Humans (SCERH).

**Data collection methods**

Data collection in the Teaching Fellowship program included:

- Recording of quantitative unit evaluation results in 2009, 2010 and 2011. These were used to determine whether there were any improvements to the students’ overall satisfaction rating of the unit after the PATS process was complete. Results for ICT units have been reported in Carbone, Wong and Ceddia (2011).
- Collating qualitative unit evaluation comments. A thematic analysis of these comments revealed common areas for improvements across ICT and ENG units in need critical attention. The broad categories for improvement are reported in Carbone and Ceddia (2012).
- Surveys of participants involved in the pilot study. This explored the influence of PATS on staff’s teaching practice. The participants were asked a specific questions that highlighted the benefits and opportunities of the scheme. These results have been reported elsewhere (Carbone, 2011)
- Focus group interviews exploring the mentors’ and mentees’ perception of the scheme. Topics included: the recruitment process into the scheme, the ease or difficulty in identifying issues with the units, approaches in gathering student feedback, conducting a peer observation of teaching, building a relationship with partners, positives and negatives of the scheme, and whether the PATS process would be suitable as a professional development component for new teaching staff. The focus group sessions were recorded and transcribed.
- Written cases of the PATS partners’ collective experience.

**Data analysis**

This paper specifically reports on the efficacy of PATS activities to build peer assistance capacity in faculties using data from the written cases and focus groups. Results are discussed under Brookfield’s lenses to develop insights into how new peer connections are created, sustained and developed over the semester.
Results and Discussion

Seven of Monash’s ten faculties (Information Technology, Engineering, Education, Pharmacy, Science, Arts, Business and Economics) participated in the trial. A total of 38 participants trialled PATS. Of those 38, 23 attended the focus group sessions: 12 mentees and 11 mentors.

The ‘self’ lens
Individuals and partners were provided with an opportunity to reflect on their teaching and the PATS process. Two illustrative comments are provided below:-

"That’s the thing I learned from PATS and I will always do, that is from PATS I’ll always do week 4 and week 8 student anonymous survey. You know what is the best thing of this unit or what is the worst thing. How can it be? ... I always do that!. And it’s really helpful. In week 4 I could know what they’re not happy with, what they’re happy with. And I can address it by week 8... Students who are lecturers in their own country, they say, “it’s really good that you have this before week 8, I will use it when I go back to my country”. And I got a nomination for a Faculty Teaching award from students comments and say the teacher likes getting feedback from us. They like to be heard."

IT Mentee participant focus group

"We spend about an hour each week, usually over coffee at the campus centre (away from emails and the phone), talking about the lectures, how to present derivations, how to use examples as well as how to mark and quickly return 150 assignments to students whilst still giving them some kind of personal feedback. We also did a peer observation of teaching and watched each other’s lectures for feedback, ideas and alternative ways to do things. Each week we would also talk about issues that had come up during the week... The PATS scheme forced us to make time to be collegial and to mentor and develop new teaching staff... We would definitely participate again and recommend the program to anyone who wants to develop their teaching."

Written case from the Engineering partners’ collective experience.

The ‘student’ lens
Eight partners gathered informal student feedback. Each partner approached the gathering of informal student feedback differently. The approaches ranged from:

- A form being distributed at the start of the lecture by the lecturer
- A form being distributed in a tutorial as the attendance rate was much higher than in a lecture
- A form being distributed at the end of the lecture

Even though there was variety in the way informal student feedback was collected, in all cases, the mentees found the early informal student feedback very informative. Mentees mentioned that the students really appreciated being heard and acknowledged. The summary of feedback to the students also provided an opportunity for the academic to let the students know that there were some things outside of their control, and brought to the attention of the Head of School or Associate Dean Education.
The ‘peer’ lens
Ten partners conducted a peer observation of teaching (POT) and found the exercise to be useful. POT provided an opportunity to observe and learn from their partner and also to reflect on their own teaching. The peer observation was a critical element in building a supportive partnership and increasing an academic’s repertoire of teaching strategies. It provides academics with the opportunity to critically reflect on their unit and their practice of teaching. These informal conversations with peers contributed to improved teacher motivation, increased collegiality and excellent teaching and learning outcomes. Some partners jointly decided not to conduct a POT, as they felt it would not provide any useful information about ways to improve the unit, or there just wasn’t enough time to organise one.

The ‘theoretical literature’ lens
All workshops were well attended, with between 18-25 participants. They were rated as high to very high in meeting the needs and interests of an educator. Respondents felt the Planning your Teaching workshop developed their skills and confidence in planning future teaching sessions, and indicated a high overall satisfaction with the quality of the workshop. The Interactive Lecturing workshop developed their skills and confidence in planning future teaching sessions, and respondents rated a high overall satisfaction with the quality of the workshop. Participants considered peer observation as a data reflection tool, and would consider incorporating it as part of their normal teaching practice after attending the Peer Observation of Teaching workshop.

Overall impression
Overall, the general impression of PATS from mentees and mentors was positive.

PATS mentees described the scheme as: a good idea, non-invasive, supportive, collegial, putting more priority to teaching, scheme to improve teaching, learning from a successful and genuinely enthusiastic teacher, friendly, excellent, professional and cordial, understanding, constructive, and respectful. The mentees were appreciative to have the support from a colleague in their discipline. Typical comments included:

- It is helpful having someone to talk to, ask questions and seek advice from”
- Great having a mentor for support”
- The scheme allowed the mentee to build relationships with the students”
- Provided a chance to share ideas and receive feedback”

Mentors enjoyed the collaborative, mutual problem solving aspect of the scheme, and received personal satisfaction in helping someone wanting to improve their unit. Their attitude towards the scheme was expressed as: effective, valuable, structured, useful, improving quality, supportive, respectful, non-intimidating/judgmental, constructive and purposeful, enjoyed thoroughly, and a sense of accomplishment. Some positive comments expressed by the mentors included:-

- Helped to build up leadership skills
- Felt gratification in being recognized by a colleague
- Broadened education and increased skills
- Gaining personal satisfaction in helping someone who really wants to improve, and makes the effort to do so.
Conclusion and implications

All universities want to develop a culture that is focussed on enhancing the quality of the student learning experience. PATS provides a vehicle for institutions to achieve this, by harnessing the benefits of reflective practice, peer assisted learning and mentoring. PATS provides academics with an opportunity to reflect on their own teaching that may not have occurred outside of the scheme without the support of a mentor and a clearly defined process. It opens opportunities for academics to engage with, and be mentored by, exceptional teaching colleagues expanding their professional network in an environment that is collaborative and fosters mutual problem solving. It also introduces academics to the scholarly work in learning and teaching and offers them opportunities to apply such research into their everyday teaching practice.

If universities don’t have policies and practices to provide tailored, ongoing professional support for staff to stimulate teaching and unit improvement discussions in a non-threatening environment, they should consider PATS. PATS is a low cost inspirational endeavor that facilitates support, solidarity, the sharing of experiences, innovation and good practice in learning and teaching.

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References


Rowe, A. Solomonides, I., & Handal, B. (2010). *How to collaborate with peer observation: Learning from each other.* Sydney: Macquarie University.


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