Developing a Model of Student-Centred Teaching which Enhances Active Engagement

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Abstract: This study sets out to explore a change in curricula in response to an observed decline in student engagement. It traces the steps of the first author who observed increased diversity of student backgrounds, larger classes and declining engagement in her tertiary classes. The action learning methodology provided a sequence for introducing student-centred learning, assessing the changes based on the feed-back and reflection on one’s own practice, refining the intervention and re-trialling it. This paper reviews literature that discusses the rationale for introducing more student-centred classes as an effective strategy for engaging students from a variety of backgrounds. It highlights ways to facilitate student learning and the implication for the role of the teacher and students and provides examples of how this approach might be incorporated into a curriculum and reports on preliminary outcomes.

Keywords: Peer Assisted Learning, Facilitation, Student-Centred Teaching, Active Engagement

Introduction

This paper is written to share a journey with both new and experienced teachers in tertiary institutions on re-examining effective techniques for tertiary learning. The result is a reaffirmation of the principles of good teaching practice that must involve meaningful learning in order to engage students. It sets out a rationale for moving away from the traditional teacher-centred approach to more learner-centred approaches in classroom teaching. Strategies are shared on how this may be implemented and the likely impact on various learning environments, activities and the role of the teacher and student.

Background

Since 2001, the 2nd year Macroeconomics Unit Panel observed a growing group of students who were struggling to successfully complete the unit. It was observed that a majority of these students were adopting a more passive approach to their learning. They were less inclined to ask questions in lectures and tutorials, less likely to attend one-to-one consultation times, to review their tutorial answers and/or discuss their assessments with teachers. Students usually minimised their on-campus time by arranging all classes over one or two days. Simultaneously, University extra-curricula activity organisers complained of low student involvement in university run events, sports teams and clubs etc. The lack of engagement with university activities was often due to competing family, peer or financial pressures as reflected in the following quote:
Students show signs of inertia, find it difficult to get motivated, Otherwise occupied in paid work and juggling multiple commitments' (Krause, 2005, 12).

The above scenario coincided with increasingly diverse students entering the Bachelor of Business at an Australian university from a broad range of educational and cultural backgrounds. Australian universities have been subject to reduced Government funding over the past decade resulting in greater competition for students. Competitive pressures have encouraged universities to relax some aspects of their entrance requirements and offer generous exemptions as part of their recruitment policy. The impact of this within the classroom has been increasingly diverse expectations, ability levels, prior knowledge and skills. At the same time, university faculties have been managing larger student cohorts, using more casualised sessional tutors and reduced face to face contact hours. Sessional tutors have limited access to professional development needed to build their pedagogical skills essential in improving teaching strategies that actively engage students in the learning process. Managing cost pressures and increased student numbers have also meant that there has been increased use of Information Communication Technologies (ICT) including the use of Learning Management System (LMS) to provide more content online.

Student readiness for tertiary studies has declined owing to generous exemptions, with many students arriving directly into 2nd year units, meaning students are often not only ill-prepared for studying at university; they also lack critical pre-requisite knowledge. These multiple influences have required a review of current curriculum practices, in particular the teaching approach to assist students to become more engaged. As suggested by the comment below, focus needs to be on motivating the student:

‘The really difficult part of teaching is not organizing and presenting the content, but rather doing something that inspired students to focus on that content to become engaged’ Robert Leamson (2000).

Research Objectives

The objectives of this research are to:

1. Redesign lectures, tutorials and assessments in the Macroeconomics unit (HBE220N) in a manner which would facilitate student-centred teaching and learning.
2. Evaluate the effectiveness of the measures taken in (1) above.

Literature Review

The theory underpinning this study draws on the pedagogical literature including that relating to increasing ‘student engagement’ through promoting ‘deep learning’. Biggs’ research has its roots in the belief that the best way to understand learning is to study how students learn, rather than focusing on the educational system, the teacher, or learning goals. The focus on student learning originated in Sweden with Marton and Saljo’s study (1976), where students read and were questioned on the meaning of a passage. One group ‘skated over the surface of the text’ and the other tried to understand the meaning of the text. The first was described as taking a ‘surface’ approach to learning and the latter as taking a ‘deep’ approach to learn-
ing (Marton and Saljo, 1976). This study was a landmark and has been a catalyst for the work of Entwistle in the United Kingdom, who worked both independently and jointly with Ramsden, (Entwistle, 1984, 1988; Entwistle and Ramsden, 1983; Ramsden, 1998, 2003) and Biggs in Australia and Hong Kong (Biggs, 1987, 1990, 1999, 2003). Franke et al. (2001) have remarked:

‘When individuals learn with understanding, they can apply their knowledge to learn new topics and solve new and unfamiliar problems’ and also ‘Learning with understanding is not only a matter of connecting new knowledge to existing knowledge, but also includes reorganising knowledge to create rich integrated knowledge structures’ In this situation, ‘learners see learning as driven by their own inquiry.’ (p. 656)

All of the above research has been of particular interest in understanding the implications for designing learning for students at a tertiary level. Students are more likely to take on a deeper learning approach when they have to take more responsibility for their learning. As suggested by Saulnier (2008, 2) “we seek to develop in our students adequate professional preparation coupled with the ability and desire to join others in an arena of mutual respect to explore, probe, and engage in our increasingly global cultural and intellectual heritage.” This requires teachers to move from a teacher-centred to a student-centred approach and forces teachers to “change the way they think about their profession. They find it threatening to give up some of their control and power.” (Saulnier, 2008, 2)

The need for a paradigm shift consistent with a student-centred learning approach was proposed more than a decade ago (King, (1993) cited in Saulnier (2008)). The claim was developed further by describing a shift from ‘an instructional paradigm to a learning paradigm’ (Barr and Tagg, 1995). Since then, there have been more specific prescriptions on increasing student activity and principles to guide instructors on how to develop student-centred learning (Weimer (2002), Fink (2003) and Bain (2004)).

The definition of student engagement provides a practical guide to improving learning outcomes ‘students’ involvement with activities and conditions likely to generate high quality learning’. (ACER 2010, 3). This concurs that student engagement is enhanced when having to learn actively (Biggs 1999, 57). Engaged students actively build on previous knowledge and construct new understanding that has meaning for them. Active engagement in class work involves asking and responding to questions; explaining to others; problem solving; discussing and debating. The ACER study also identified tertiary students’ interaction with their institution as integral to student engagement. In the 2010 survey two of the six criteria positively correlated with ‘engagement’, Active Learning and the second criteria, Student Staff Interactions (ACER, 2010, 7). These two criteria are linked positively with learning activities that are student-centred. The following quote correlates student engagement to subsequent learning outcomes;

‘In short, measures of student engagement provide information about individuals’ intrinsic involvement with their learning, and the extent to which they are making use of available educational opportunities. Such information…can be a reliable proxy for understanding students’ learning outcomes.’ (ACER, 2010, 4)
There are several necessary pre-conditions to incorporating active learning practices to sustain student engagement. Students are more likely to engage with peers and teachers if there is a clear structure, relevant content, and learning is designed so that students’ prior knowledge and experience can meaningfully be adapted to the new learning. Also students’ engagement increases when they are required to make sense of their learning, demonstrate their understanding in practical ways, and are challenged to use higher order cognitive skills such as evaluation and analysis. When teachers link and apply theoretical concepts to real world examples relevant to a broad range of student interests and needs, students are more likely to remain engaged and integrate the new learning to existing understanding (Biggs, 1999, 2003; Ramsden, 1998; Entwistle, 1988).

**Theoretical Framework**

A useful way to think about moving from a teacher-centred approach to student-centred approach is to consider using the theory of ‘constructivism’ suggested by the cognitive constructivists, Dewey (1938), Piaget (1932) and later the social constructivist theory devised by Vygotsky (1962). Using a constructivist theoretical approach, teachers encourage students to build on their prior knowledge and skills, and make new learning personally meaningful to the learner being actively involved in the learning process. Savery and Duffy (2001) characterise the philosophical view of constructivism in terms of three primary propositions:

1. **Understanding is in our interactions with the environment.** What we understand is a function of the content, the context, the activity of the learner and most importantly, the goals of the learner.

   According to Carlson (2003, 1) ‘learning occurs most effectively when the individual actively processes the information in a way that is meaningful to him/her, and not simply passively incorporates information unchanged from its original form’. Curriculum is designed considering how students best learn. Curriculum design needs to provide for students to relate new learning to prior knowledge and reflect on the new learning experience to re-build understanding to form new cognitive structures.

2. **Cognitive conflict is the stimulus for learning and determines the organisation and nature of what is learned.**

   Students are actively engaged when learning is “…situated, deliberate, learner-directed and activity-oriented efforts to seek divergent solutions to authentic, personally meaningful problems through multiple interactions amongst problem solvers, tools, and related resources” (Kim and Hannafin 2010, 404). Van Merrienboer et. al., (2002) suggest that problem solving activities should involve “concrete, authentic, whole-task experiences” and that the role of the teacher is to supply supportive information that “provides the bridge between learners’ prior knowledge and the learning tasks” (2002, 43). Students research or apply theories to form their own conceptualisations on a solution, skills and techniques.

3. **Knowledge evolves through social negotiation and through the evaluation of the viability of individual understandings.**

   When students work collaboratively with peers (social constructivism), they learn collaboratively, combine their collected knowledge, and assist each other to make personal meaning from their collective learning experiences (Dalgarno, 2001). The critical skills
that can only be developed in a facilitated student-centred learning environment include practice in explaining concepts or sharing ideas, and constructive response to peer queries. Peer interaction not only maximises opportunities for students to learn from each other, it also develops communication and social skills (Biggs, 2003).

In line with the above discussion, the constructivist theoretical framework for this research study is depicted in Figure 1:

![Figure 1: The Constructivist Theoretical Framework Adopted for this Research Study](image)

**Research Methodology-Action Learning**

An action learning methodology was used as a collaborative framework for teaching staff to address learning issues and to improve student engagement within a business faculty. A major contribution to action learning theory was made by Revans (1982), and this methodology is particularly useful for tertiary teachers who have common learning and teaching issues and are prepared to work collaboratively to review and reflect on the curriculum and practice as illustrated in Figure 2. Action Learning is a useful methodology to research, implement and evaluate an educational innovation with the support of a group of peers. According to McGill and Brockbank (2004), the action learning group, “or ‘set’ of colleagues working on real issues, with the intention of getting things done” (2004:11), were an actual group of tertiary teachers who in 2010 shared a common concern as they were developing innovations related to a faculty strategy to increase student engagement. The set of colleagues (group set) members regularly met to share their individual challenges, resources and insights in order to refine their specific “hunches” as to how to approach addressing the issue of student engagement. This methodology provided a safe space for tertiary teachers to review their current practice, as well as learning and teaching issues, and share progress on any new approaches being trialled.
Figure 2 traces through a response to the faculty identified issue of enhancing student engagement, identifying three phases, and following the sequence used in this research project.

- **Phase 1** includes identifying the particular learning issue, pursuing a ‘hunch’ that student engagement required more student-centred active learning opportunities. This would involve a move away from the more traditional teacher-centred “transmission” style learning and teaching approaches. It was then necessary to identify a potential strategy to advance the hunch. The strategy was confirmed by reflecting and discussing the situation with group set members. Group members met regularly to share individual challenges, resources, and insights and to refine their “hunches” through providing feedback to each other. The group set provides a valuable resource for reviewing current practice and providing an input for individual reflection. The other influences that contributed to clarifying the direction of the intervention was the literature review; the positive learning patterns observed from 2001-current in peer learning groups, where students became more confident and achieved improved academic performance relative to the rest of the cohort; and the need to discuss and involve the unit teaching panel in contributing to the intervention. The unit teaching panel consisted of two full time and two sessional tutors who all tutored in Macroeconomics. The panel considered how increased student-centred learning activities might be incorporated into the curriculum (See Tables 1–3).

- **Phase 2** includes planning and implementing the pilot stage. Discussions with the group set and unit panel members led to a deeper reflection on the way the unit was currently
structured. Reflecting on teaching practice increases self awareness by critically analysing the most effective way to engage and enable students to learn. A consensus emerged from discussions with the group set and unit teaching panel that the process of constructivism is more effectively achieved through facilitation rather than teacher-centred learning and was adopted as a preferred approach. The trialled changes were piloted in semester 2, 2010. These involved incorporating some of the peer study session approaches that were student led sessions involving answering and posing questions to peers and teachers; contribute actively to class discussion; respond critically to video clips of economic news sources which were analysed by students.

Feedback on the student learning outcomes and motivation was collected from tutors and students, which assisted an evaluation of the trialled curriculum intervention.

- Phase 3 includes reflecting on the findings from the feedback including that of a wider Faculty group in a ‘Teaching and Learning’ focused workshop. Led by the Deputy Dean Teaching and Learning, the group provided insights into the expected Faculty outcomes both educationally as well as the expected resource implications of the project. Considering all these inputs, a re-trial on a new cohort of students was refined and improved. The way these changes have been operationalised are explained and illustrated below.

**Operationalising the Process**

The next section describes the operationalising of the process, providing examples of how student-centred learning may be achieved, using practical examples of how the teacher and students’ roles and activities change in lectures, tutorials and assessments. These are outlined below in three brief discussions and summaries in Tables 1, 2 and 3.

**Changing Role of the Teacher in a Student-Centred Learning Environment**

Tertiary students come from diverse backgrounds, bringing with them a range of knowledge, experience and motivations for learning and tertiary teachers are required to adjust their approaches in this diverse context. Focusing on student-centred learning requires that a tertiary teacher understands that their role changes to facilitate others’ learning. The role for a lecturer and tutor change in this context from ‘delivering’ prescribed content to ‘designing’ for learning. This involves identifying any learner scaffolding needed to aid effective learning, and facilitate learning through the development of a range of student-centred activities that engage students in learning and apply new concepts in a variety of learning situations.

Facilitation is defined as ‘*a technique by which one person makes things easier for others*’ (Kitson, et.al. 1998, 152). How does the role of ‘lecturer’ or ‘teacher’ differ from that of a learning facilitator, who rather than ‘teach’, ‘designs’ a learning environment where students take on more responsibility for their own learning? Facilitation as a professional practice was developed in fields such as counselling and health training and has often been referred to as moving teachers from being the “sage on the stage to the guide on the side.” (Harvey, et.al. 2002, 580). The practice of the facilitator in any context is to ‘enable others’ which is;

‘*developmental in nature, seeking to explore and release the inherent potential of individuals*’. (Harvey.et.al. 2002, 581)
Table 1 provides a summary of the difference between the traditional teacher-centred lecture and a more student-centred approach, and provides some guidance as to how the various learning processes have been re-designed.

**Table 1: Redesigning Lectures for Student-Centred Learning**

<table>
<thead>
<tr>
<th>The Traditional Teacher-Centred lecture</th>
<th>Redesigned Student-Centred “lecture”</th>
<th>Changes to curriculum and practice may involve:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Teacher expounds on prescribed content, may include linking theories to real life events. Content, pace, and depth are pre-determined;</td>
<td>• Teacher becomes a curriculum designer. Content delivery is more flexible, providing a choice of place, pace and time;</td>
<td>• Curriculum is accessed by students in a variety of ways when and where needed;</td>
</tr>
<tr>
<td>• Students are required to attend and absorb the information and make it meaningful for themselves. (Marsh, 2009).</td>
<td>• The teacher facilitates interactive sessions, providing expert guidance, linking theoretical underpinnings and providing opportunities for students to have greater input throughout the session. This allows taking advantage of a diverse student cohort;</td>
<td>• Variety of current information sources that are relevant to the curriculum;</td>
</tr>
<tr>
<td></td>
<td>• Students are expected to take more responsibility to review content prior to learning sessions which may be face to face and/or online.</td>
<td>• Explicit linking of information sources and learning requirements to the purpose of the unit;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Large group facilitation skills developed for online and face to face teaching;</td>
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<tr>
<td></td>
<td></td>
<td>• Wider range of teaching and learning strategies used to take advantage of new educational technologies.</td>
</tr>
</tbody>
</table>

The role of a teacher as an expert guide and learning facilitator involves the development of a spectrum of tools and techniques that ‘support’ and ‘enable’ students to become independent learners. A good learning facilitator provides a rich supportive learning environment and an *enabling* structure and program that allow students to construct their knowledge in a meaningful and productive manner. The teacher provides relevant resources (multi-modal) combined with expert advice and guidance. After reviewing resources (including current broadcast news clips), the teacher asks for responses and questions students. Students are able to contribute to the learning of others by sharing and explaining their answer to the group. Peers can also provide commentary and critique on other students’ comments and reflections.

Table 2 provides a summary of the difference between the traditional teaching-centred approach and how the student-centred approach has been applied in a small group teaching session (tutorials) and provides guidance as to how the various learning processes have changed to move to a more student-centred approach.
Table 2: Redesigning Tutorials for Student-Centred Learning

<table>
<thead>
<tr>
<th>Traditional Teacher-Centred tutorial sessions</th>
<th>Revised approach incorporating greater Student-Centred approaches</th>
<th>Changes to curriculum and practice may involve:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Tutorials are instructor-led with pre-determined activities. Students research and present topics which are then assessed by the tutor;</td>
<td>• Students are encouraged to lead more, by taking on previously assigned tutor responsibilities such as giving examples, summarising discussion, solving problems, explaining, drawing diagrams, and graphs; (Weimer (2002) in Saulnier (2008))</td>
<td>• Develop face to face and/or online facilitation skills;</td>
</tr>
<tr>
<td>• Tutors may invite or ask questions, to seek responses from students.</td>
<td>• Students explore, discuss and ask questions about aspects of the content. They are expected to identify their own learning needs, support each other and explain concepts to each other through peer learning;</td>
<td>• Design student-led activities;</td>
</tr>
<tr>
<td>• Those with specific interests are provided with opportunities to research them individually or in groups and present their findings in student led class discussion;</td>
<td>• Those with specific interests are provided with opportunities to research them individually or in groups and present their findings in student led class discussion;</td>
<td>• Develop peer assessment tools;</td>
</tr>
<tr>
<td>• The Convenor encourages tutors to facilitate student-led activities rather than instructor focused activities. Tutors provide suggestions for research and expert guidance and mentoring as required.</td>
<td>• The Convenor encourages tutors to facilitate student-led activities rather than instructor focused activities. Tutors provide suggestions for research and expert guidance and mentoring as required.</td>
<td>• Greater flexibility to allow student-led inquiry rather than planned activities;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Manage a less familiar content base;</td>
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<tr>
<td></td>
<td></td>
<td>• Support the process of inquiry as significant as the findings themselves;</td>
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<tr>
<td></td>
<td></td>
<td>• Mentor tutors to better facilitate student-centred learning;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Rely less on local, familiar examples and include new broader global perspectives from a variety of sources, including from the students;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Make opportunities for students to learn from each other and gain from the diversity of student backgrounds and experiences.</td>
</tr>
</tbody>
</table>

An example of how tutorial work has changed is that students choose from a list of economic issues and a group of students (preferably with similar country interests) research a problem and its history, prepare a short case study to present in tutorials. After the group presents to the class there is discussion, peers and teacher provide feedback that is incorporated in a final write-up of the report. An example of a suitable topic is: What has been the recent levels of inflation/unemployment in your country and how has it contributed to economic growth, distribution of income, trade balance and government policies? Provide evidence to support your arguments.
Weekly tutorial or application questions are deliberatively constructed to ask open-ended questions, provide international data and identify issues to explain how the economic problem evolves and develops into a major problem. Gains from student-peer interaction have been attributed in relation to general academic progress and the development of critical thinking, analytical and problem-solving skills (Astin 1993; MacKay & Kuh 1994). Astin (1993) considered that students’ peers were the single most important source of influence on learning and development. Students learn more effectively from peer learning because it is non-hierarchical and informal. Normally quiet or passive students are more inclined to actively participate by initiating questions and explaining to others. Peer learning is practised in workshops where small groups answer unseen questions by discussing and writing answers as a team. Assessment needs to be closely aligned to learning objectives and coverage.

Table 3 provides a summary of how assessment practice assists when moving from a teacher-centred to a student-centred approach.

Table 3: Redesigning Assessments for Student-Centred Learning

<table>
<thead>
<tr>
<th>Assessment with Teacher Centred approach</th>
<th>Assessment with Student-Centred approach</th>
<th>Changes to curriculum and practice may involve:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The Convenor designs, sets and assesses students according to the unit design and accreditation requirements. These are linked and aligned to the learning objectives and activities of the unit;</td>
<td>• Assessment approaches are more varied and flexible;</td>
<td>• Design assignment questions that enable new skill levels by asking questions requiring critical analysis;</td>
</tr>
<tr>
<td>• There are a range of formative and summative assessments;</td>
<td>• Tutors and peers are more involved in formative assessment and feedback to assist learners;</td>
<td>• Design assessment approaches that provide greater flexibility and test a range of skills;</td>
</tr>
<tr>
<td>• Clear assessment criteria are provided to students;</td>
<td>• Alternative assessment strategies to meet a wider cohort of learning needs, such as negotiated learning contracts, self-initiated research projects, work-based learning projects;</td>
<td>• Use more formative approaches to assessment;</td>
</tr>
<tr>
<td>• Convenor and tutors are responsible for all aspects of assessment.</td>
<td>• Assessment criteria are explained prior to students starting the assessment and are included in a marking/feedback rubric;</td>
<td>• Negotiate self and peer assessment criteria;</td>
</tr>
<tr>
<td></td>
<td>• Students are guided to devise self assessment. Ultimately the Convenor makes final judgements but students have a greater input.</td>
<td>• Provide feedback early in the semester and develop a variety of support for students to self and peer critique;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Model answers to students by talking aloud (or online) as the teacher moves through the steps, revealing their own thinking process.</td>
</tr>
</tbody>
</table>

Criteria and weightings for each assessment are discussed and explained to students prior to the assessment. Students are provided with feedback early in the semester from a tutorial
exercise, after which tutors review common mistakes and mentor students who want to improve. Feedback from peers in discussion and after presentation, enable students to identify gaps and strengths in others and their own knowledge. In order to build confidence, students are encouraged to answer practice assessments in their own time in preparation of the next assessment. The key change is that all students are encouraged to actively engage in the formative assessment process and to view all assessment as a normal part of the learning process, rather than a final judgement on their learning.

Outcomes of a Trialled Intervention of Curriculum and Practice Changes Designed to Facilitate Student-Centred Learning

The influences of growing student diversity has made a positive contribution to student-centred learning by allowing students to explore topics as they affect their own country and hence bring a range of perspectives to the class room. They offer scope in lectures where international and exchange students summarise economic conditions at home as well as outline differences in approaches to learning in their home country compared with Australia.

In response to student passivity and tendencies for rote learning it was decided that curriculum and practice changes needed to be explored. Lecturers and tutors work collaboratively in finding a variety of techniques for students to ‘work it out for themselves’, and develop critical thinking skills. New strategies of allocating a range of tasks for students to work through in tutorials each week helps reduce student expectation of the tutorial providing a mini lecture or mechanically answering set questions. A weekly meeting with the Convenor ensures consistency in tutorials and provides feedback and opportunities for discussing key issues such as the differences between ‘teaching’ and ‘facilitation’ which heightened the Convenor and tutors’ awareness of the differences in application and outcomes in a student-centred context.

The adopted implementation was based on moving away from a teacher-centred paradigm to a student-centred approach which started in semester 2, 2010 and has continued throughout 2011. The methodology of action learning includes an important role for reflecting on teaching practice. Reflection on how to achieve desired outcomes, critically analyse changes implemented and how to improve these outcomes, increase self awareness and understanding of engaging and enabling students to learn. The process is both personally and educationally valuable. It has been underpinned by the well thought out theoretical principles of constructivism that has meant revising practice and curriculum, has resulted in much more active student involvement in the whole learning process.

Since the implementation, there have been an increased percentage of students gaining credits, distinctions, and high distinctions. This is consistent with student feedback collected at the end of each of the past two semesters where more students acknowledge the relevance of the unit content. Unfortunately however, there has not been a similar reduction in the overall failure rate, which suggests that the better students appear to be benefiting from the changes, but the poorer students are yet to show a real improvement in learning outcomes. It has been observed also that attendance rates in tutorials have increased slightly. Using current media (TV News etc.) and contemporary examples in classes have addressed a broader range of interests in the class and heightened the awareness of many students to the relevance of topics being studied. This in turn has motivated some passive students to take
a more active role in initiating questions both in lectures, tutorials and extra classes. (Tutor feedback semester 2, 2010).

Student feedback surveys in semester 2, 2010 reinforce the findings that many students enjoy learning when they have a better understanding of how to apply theories being taught in the unit to real live events in the media. There were a number of positive experiences reported.

The Convenor...

‘Encourages class participation…’ and asks probing questions to increase student’s confidence when responding in class’ ‘Focuses on students’ study approach’… ‘Guidance on how to study for assessments was great. The feedback on assessments has proved to be very helpful’ (student comments HBE220, 2559, 2563, 2565).

A focus group was undertaken in January 2011, to provide an opportunity to probe student feedback relating to the changes that have been implemented in more depth. The themes that emerged were the benefits of using many examples to illustrate a theoretical claim. These examples could be complemented using relevant video clippings. Students also saw the benefits of learning in groups with meaningful problems and questions to answer. Collaborative peer learning has been given greater prominence in classes and assessments, and student comments from the focus group suggest that they see this as a useful way to assist their learning. The focus group feedback also suggests that some students have gained ongoing interest and confidence in discussing economic events. One member stated ‘My boy friend says I should write a letter to a paper because I have an opinion on many issues’

As a result of involvement and observing peer assisted study sessions, feedback from students and leaders, it was observed that the engagement demonstrated by students in these sessions was higher than those in regular classes. The Convenor realised that the interactive, informal characteristics of peer study sessions needed to be incorporated into the regular tutorials and lectures. Discussion and sharing of feedback with the tutors encouraged them to rely less on ‘transmitting answers’ and more on creating a flexible and interactive session where students were more likely to ask and answer questions posed as exemplified in the following quotations from peer leaders:

‘I just shaped the conversation but they took control of it....Since they all knew each other well now the pairing worked well, they discussed their problems to a deeper level’ (s1, 2010).

‘I always hand over my pen to students and let them to speak or explain. When they are having heated discussions, I would always walk around and take part in that as well’ (Ys2_2010).

Adapting the effective techniques of interactive, group, and students demonstrating answers to their peers in lectures and tutorials as identified by peer leaders are core parts of normal practice in Macroeconomics now. Learning from and adapting the student-centred approach in response to the strengths and weaknesses observed from practice so far, is the final stage of action learning. Adjustments that respond to this stage come from tutor comments and suggestions from focus groups. Continuous reflection and review will inform future adjustments to be implemented in next semester’s program.
Future Research and Limitations

This research has been supported by a faculty innovative learning grant for a period of two years, 2010–2011. The grants provide time release for research and planning of an innovative intervention, trialling and evaluating the implementation, and reflection on the impact of this intervention for future developments. Modifying the first semester’s intervention provided the opportunity to refine and improve the original changes in response to stake holder feedback.

As the changes in teaching approach started in semester 2, 2010, only one semester’s outcomes have been analysed, so the full impact on student learning, and observed engagement and motivation to learn will continue to be assessed over 2011. Data from semester 1, 2011 has been collected and will be analysed and combined with those of semester 2, 2011 to inform modifications for 2012.

Gaining evidence on the value of student-centred learning has led to related issues of investigation. For example, what could be included in training for facilitating, compared to teacher training? What other technologies are appropriate to extend the effectiveness of student-centred learning? What are the potential efficiencies from using and extending technologically accessible examples when applying economic principles to real world problems? For example, is there potential to reduce contact hours with technological applications and examples developed. The value of using case studies for learning on-line will also be investigated in terms of reducing cost and increasing student engagement.

A strength of the study is that data has been collected from three semesters’ results and should provide richer data to track the direction and impact of more pro-active and engaging learning experiences. The Action Learning methodology supported tertiary teachers who formed the unit teaching panel to make changes within a dynamic support group setting in non hierarchical classroom context. A limitation could be if tutors who have trained skills and experience of facilitation as well as trust and rapport as a unit panel change involvements. The two year project depended on a specific group set of supporting teachers that may not continue after 2011.

Also focus group data, feedback from tutors and reflection on students’ views provided a proxy for measuring qualitative aspects of the responsiveness of each student group. Although there are several additional safety nets available for students who need support, there are still students ‘falling through the cracks,’ who need to be identified early and mentored more closely through the unit.

Conclusion

Universities have changed considerably over the past two decades and this is particularly reflected in the growing diversity of our students. This growing diversity has provided richness in the class environment; however it has also created increased challenges for tertiary teachers to keep students engaged in learning. Changes to university funding and the introduction of new technologies have also altered university teaching modes, and the latter has been used advantageously in the intervention described.

As a result of reflecting on the various funding pressures and growing diversity, innovative practices were modelled on the observed engagement demonstrated in peer study sessions, where peer leaders are facilitators and the study sessions are highly student-centred. This
journey began by taking an action learning approach involving reviewing the pedagogical literature, reflecting on the interactive student-led learning practices inherent in the peer study support methodology and a realization that this could be adapted and incorporated into current teaching practice. The action learning cycle was used to initiate the intervention, and to provide a framework for reflecting on the various phases when moving from a teacher-centred to a student-centred approach. The Macroeconomics classroom has been rejuvenated for student learning, and teaching experience for the Convenor and tutors in the unit. Tables 1–3 provide a summary of ways changes have been made to lectures, tutorials and assessment practices. To move from a teacher-centred approach to a student-centred approach, teachers have found ways of being facilitators of student learning and designed activities that require student input, to insure student are at the centre of the learning process where they learn best. The teachers do more listening and assisting to enable students to enjoy and take more responsibility for their learning. The effectiveness of the traditional teacher-centred approach is superseded by available technologies which when combined with well designed active learning techniques, provide a more contemporary stimulating learning environment.

The unit panel is more cohesive and active which results in more consistent tutorial and lecture activities and coverage. Tutors regularly consult with students and are available to support students. The ‘tail’ of students who are at risk of failing are identified earlier in the semester through a week four tutorial exercise. Students who are dissatisfied with their performance are individually approached by their tutor and encouraged to avail of the consultation opportunities, peer sessions and discussion board.

It is clear from student and tutor responses as well as the unit achieving above five for the first time (on a scale of 0–6) in its score for semester 2, 2010, that these changes have not only been appreciated but have also engaged students beyond the unit of study. The initial findings have been very encouraging as a way of improving student engagement and learning outcomes and are considered to be worth pursuing in both improving the current intervention and expanding its applications to other tertiary units in the future.
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