

## A brave new world in Accounting: Changing curriculum design to support learning outcomes and improve student retention in first year accounting

### OVERVIEW: SUMMARY OF CONTRIBUTION AND CONTEXT

This nomination outlines and evidences my success in redesigning the curriculum of the first-year subject, *Accounting Principles and Systems*. Introductory accounting is a challenging subject area due to the volume of technical and skills-based material required, which often leads to lower grades and higher failure rates (Lento 2016). In 2012, students attended a 2-hour traditional didactic lecture and 1-hour tutorial class. While students may have been physically present at classes they were often unprepared and didn't engage in the subject content. The inability to apply core concepts and foundation skills was highlighted when 42% of the class cohort failed the overall assessment. This subject has a diverse student cohort with a high proportion of students, on average 59%, who are First in Family (FiF) and 24% of students, on average, who are classified as low socio-economic status (LSES). FiF and LSES are linked to the academic and cultural capital these students bring to their first university experience. Students from these backgrounds are often not as confident and are frequently unsure of university expectations (Devlin, 2013), which further hinders their successful transition to university. The challenge I faced was how could I improve student achievement for a diverse cohort of first year university students? I have used a constructive pedagogical approach to the curriculum redesign of this subject to create a supportive learning environment that focuses on active learning and engagement. This has been achieved within a blended learning environment. As part of the learning innovations, I adopted a flipped classroom approach in 2013 and was one of the first academic staff to pioneer this teaching method at James Cook University (JCU). Through continual reflection of student feedback, Peer Review of Teaching (PROT), and personal reflections from my teaching experience, I have amended assessment and created digital learning objects to foster academic habits to assist first year students with their transition to the expectations of university life. The success of my curriculum redesign is evident from the subject results and student satisfaction scores (Table 1) which are ranked in the top 10% at JCU.

**Table 1:** 2013 – 2016 Student Evaluation Ratings, highest score 5/5.

Relevant Student Evaluation Questions	My Score 2013	JCU Avg 2013	My Score 2014	JCU Avg 2014	My Score 2015	JCU Avg 2015	My Score 2016	JCU Avg 2016
Overall, I was satisfied with this subject.	4.5	3.9	4.5	3.8	4.6	3.9	4.7	3.9
Overall, I was satisfied with the teaching of this staff member.	4.5	4.1	4.5	4.1	4.8	4.2	4.7	4.1

### CRITERION 2: DEVELOPMENT OF CURRICULA, RESOURCES AND SERVICES THAT REFLECT A COMMAND OF THE FIELD

**My challenge — how could I engage the unengaged to improve student learning outcomes?**

#### FLIPPED CLASSROOM





In 2013, the Bachelor of Business moved to an online/external offering. While new technology and pedagogy requirements of teaching in an online environment challenged me, it also presented an opportunity to be innovative and engaging with my on-campus student cohort. I abandoned traditional didactic lectures and instead chose to adopt a 'flipped classroom'. The external online recordings, innovative topic overviews, and 'chunked' recorded lectures formed the pre-class content for the flipped class: *"These videos are an excellent way to prepare for the Workshops and a much better idea than delivering the content in a lecture"* (Student Evaluation, 2016). The face-to-face classes became an active learning environment workshoping the technical and foundation skills required for introductory accounting (Bergmann & Sams, 2014). The learning activities I created over the past 4 years have incorporated the use of online quizzes to gauge pre-learning, collaborative peer activities, and accounting based problems. I no longer lecture to my students; instead, I have created a supportive learning environment where I facilitate and encourage students to work individually or collaboratively to complete my class activities. The flipped classroom has resulted in a highly engaged and participative classroom: *"the flipped classroom was very interactive and really helped in understanding the content"* (Student Evaluation, 2014); *"Completing in class as opposed to homework helped me to better grasp and understand the accounting concepts"* (Student Evaluation, 2015); *"allowed for*

*bonding and the creation of networks between fellow students in the field*" (Unsolicited Student Feedback, 2016).

### SUPPORTIVE DIGITAL LEARNING OBJECTS

With a diverse cohort of students new to university, how do you orient them to an innovative style of classroom teaching? Invite them into the structures! I created Study Plans for each topic to provide guidance on the completion of pre-class content, in-class activities, and assessment to foster the development of strong academic habits. This is important because students from FiF and LSES may not have the relevant cultural capital or familial experience to enable them to respond to implicit expectations of university life (Devlin, 2013). The Study Plan<sup>1</sup>, Figure 2, is a graphic organiser based on a constructivist approach and provides a cognitive map or framework for the learning and application of content (Aslani, 2013).

Figure 2: Study Plan

Topic 5 – Accounting Systems, Special Journals			
<b>WATCH &amp; LISTEN</b> 	<b>READ</b> 	<b>DO</b> 	<b>ACCESS SUPPORT</b> 
Listen / watch the lecture video recordings for topic 5.	Read prescribed textbook : Hoggett & Edwards - chapter 7	1. Using the notes you took from the online recordings, highlight sections of your textbook noting key terms.	Make a list of any questions you have from this week's topic to take to tutorial classes.

Excerpt of a weekly Study Plan (Study Plan is a full A4 page)

The Study Plan explicitly states the tasks students need to complete on a weekly basis. It also suggests a timeframe to complete the recommended 10 hours of study per subject, per week, incorporating revision and reflection. Students embraced the use of the Study Plan: *"Use the study plan it works!!"* and *"[I]t challenged me to keep up to date with my work and set a goal for me to achieve each week"* (Unsolicited Student Feedback, 2015). After the successful implementation of the Study Plan in this subject, I developed Study Plans for my other subjects that have been adopted at the Brisbane, Cairns, and Singapore Campuses of JCU. Other colleagues have also adapted my Study Plan for use in their subjects. Rachel Hay, lecturer in Marketing stated, *"My students became reliant on Jodie's Study Plan early in the semester as they found it extremely useful"* (2016).

I introduced the use of in-video quizzes in 2016. Given the distraction and reliance on social media I was unsure how much of the pre-learning content was watched and absorbed by students. This formative assessment fosters development and improvement by combining a passive activity (watching video content) with engagement and participation in a quiz embedded in the video content. Vural (2013), found that students who use question-embedded interactive videos spend more time engaging with the learning materials. Their interaction also correlated with their overall achievement. Students appreciated the learning experience gained from participating in the in-video quizzes while watching the video lectures: *"The quizzes were a good way to test your understanding of the video, and to reinforce what was just discussed"* (Student Evaluation, 2016). The in-video quiz instills confidence in students, which is important given the high percentage of FiF and LSES, and/or identifies the necessity to re-watch the video content. This also prepared students for the pre-learning quiz used at the commencement of each flipped workshop.

To direct student's progression through *Accounting Principles and Systems*, I developed a navigational map or 'Trip Sheet' for the subject's Learning Management System (LMS). My 'Trip Sheet' (Figure 3) is contextualised to a learning journey, based on a cruise theme, and provides hyperlinks to weekly subject content and assessment. To develop positive academic habits for students new to university, the cruise ship visually demonstrates a student's weekly progress through the learning journey. It provides

Figure 3: 'Trip Sheet'



Navigational Tool used on the subject LMS

<sup>1</sup> A copy of the Study Plan is available [here](#), outside of the subject LMS.

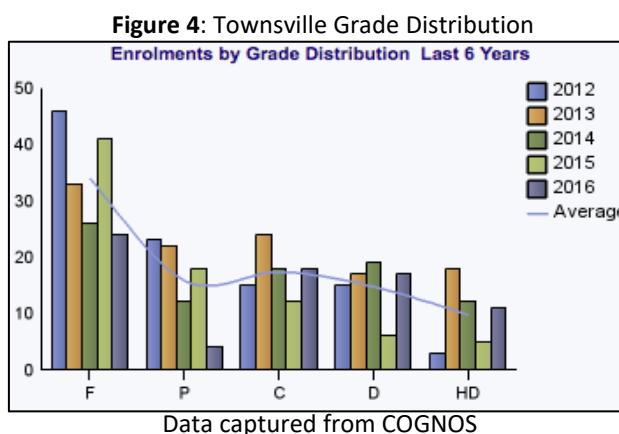
a structured approach to their study and highlights often overlooked key dates such as census date, assessment submissions, et cetera. I employed this concept based on Scherl (2012) who found students navigated content more meaningfully when using concept map-based navigation. First-year students, new to university systems and policies, find my 'Trip Sheet' an important learning tool that fosters academic awareness of the topic progression and simplifies the navigation of the LMS: *"[I]t made things more interesting...allowed me to see where everything was on a time line. It made me aware of what I needed to prepare for and what events were coming"* (Unsolicited Student Feedback, 2016).

### ASSESSMENT REFORM

Students tend to focus on the topic content and do not often see the relationship between topics and the flow of information through the accounting system. I have worked with Wiley Publishing to develop several online accounting practice sets. The first, introduced in 2014, is based on a real-world scenario and required students to complete the entire recording process from the initial recording of transactions through to the preparation of financial reports. The tasks are completed as content is learned in class, which further illustrates the application of concepts learned. Feedback is provided immediately after the first attempt, identifying the correctness of the student answer. A second attempt provides students with the opportunity to revise and correct errors. This supports student learning by enhancing their knowledge and application of the recording process (Kift & Moody, 2009): *"The assignment allowed you to get feedback and identify areas to review. A brilliant practical application of what we learnt"* (Student Evaluation, 2014).

Based on my reflection, feedback from accounting student focus groups, and an external PRoT, in 2016, I redesigned the assessment to incorporate timed online weekly quizzes. The use of timed weekly quizzes encourages students to learn content throughout the study period, further supporting the development of strong academic habits. The quizzes also provide timely feedback to further aid student learning which O'Connell (2010) identified as an important factor for accounting students. It also identifies students that may need additional learning support (Kift & Moody, 2009). This is particularly important given the diverse student cohort enrolled in this subject: *"The weekly quizzes have really helped me with my preparation for the exam, because not only am I more confident that I understand the subject content, but I also know that I can easily complete the exam within the allocated time period"* (Unsolicited Student Feedback 2016).

The success of the change in curriculum design over the 4-year period indicated both strong and challenged students benefitted from the active learning strategies I developed. Figure 4 highlights the significant improvement in the grade distributions over the 4-year period. The 2015 results are an anomaly, with the high failure rate experienced across all first-year subjects indicating this is a cohort related and not subject specific result. Overall, there has been a significant decline in the failure rates for *Accounting Principles and Systems*. This is a noteworthy improvement for student success and retention in the accounting major. The focus on active learning and engagement with the subject content has resulted in awarding on average, a greater proportion of high distinctions (15%) and distinctions (22%) than is traditionally experienced in this subject.



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### RECOGNITION FROM FELLOW STAFF, THE INSTITUTION AND/OR THE BROADER COMMUNITY

Recognition and dissemination of my curriculum design and development of digital learning objects has been recognised within my College, University, and wider academia. In 2015, I received a *JCU Citation for Outstanding Contributions to Student Learning* for my flipped classroom and strategies to improve learning outcomes and success rates. In 2016, the curriculum design and flipped model I developed was implemented in the Cairns offering of *Accounting Principles and Systems*. The Cairns Lecturer for this subject, Dale Wadson, wrote, *"Attending and participating in the flipped workshop was directly related to the outstanding attendance rate across the semester. This increased engagement saw a drop in overall failure rates from over 50% in 2015 to 19% in 2016"* (2016). The success of my flipped classroom approach and blending for

interactive learning were featured in two video presentations<sup>2</sup> in the JCU Learning Spaces SNAPSHOT Project in 2013-2014. My subject LMS, flipped classroom approach, and montages of my video and digital resources have been used to promote blended learning by the JCU Teaching and Learning Development Unit and for the promotion of the Bachelor of Business Online Program. I have also showcased these resources at staff induction training seminars and at the 2016 Australian Business Deans Council Conference, where I was invited to present my innovations in teaching at the University of Melbourne for the purpose of 'inspiring' staff. My subject LMS and curriculum development have also been presented to other universities, for example, Professor Phil Hancock, Associate Dean (Teaching and Learning, University of WA) and project leader on 'Achievement Matters'; Associate Professor John Medlin, Associate Head of School, UniSA; and Associate Professor Jonathan Tyler, Deputy Head of Accounting and First Year Transition Coordinator. All of the academics who have reviewed my LMS have commented on how impressed they were with the site development. Jonathan Tyler, in particular wrote, "*I was particularly enthralled with your 'map' for students in your subject and how it links to all the online material and your videos. You have obviously put a lot of time, thought and creativity into creating an inspirational learning environment for your students*" (2016).

In late May and August 2014, I presented my 'Flipped Classroom', and designed simulated workshops, for the Guidance Officer National Conference and the national Blackboard Conference. One conference participant commented, "*Your session on Flipping the classroom at the Blackboard conference last week . . . was streets ahead of any other presentations I saw in terms of relevance and actual content. Very engaging and enjoyable!*" (2014). Due to my focus on student engagement, Wiley Publishing invited me to give the keynote address at their Wiley Faculty Network 'Insights into delivering digital learning experience in accounting' in early May 2014. Attendees were from USQ, University of Queensland, QUT, University of Sunshine Coast, Bond University, and JCU. This forum provided the first opportunity to discuss the use of my flipped classroom, the overall success, and hints and tips for creating and developing digital learning resources. Wiley Publishing also invited me to be one of the co-authors on Financial Accounting 9<sup>th</sup> Edition, one of their leading first year accounting university textbooks, prescribed at Universities in Australia, New Zealand, and Asia. This text is currently in production for the 10<sup>th</sup> edition and is due to be released later this year. Mark Levings from Wiley described my work and value in the following statement: "*[Jodie is an invaluable partner in informing Wiley Australia's development of an online practice set, and in advising how we could optimise the student experience in terms of the on-screen work area. You have also made a substantial contribution in terms of the development of the educational content for the forthcoming Hoggett et al Accounting Learning Space project]*". My contribution to the Hoggett et al Learning Space project provides an opportunity to further improve teaching methods in accounting for all educators.

## CONCLUSION

The success of my curriculum redesign over the 4-year period is evident not only in my student results but also in the student satisfaction surveys. I applied innovative classroom techniques and created a unique suite of enabling tools and habits that provide the foundation mindset needed for their entire degree. My curriculum, resources and services demonstrate a command of the field as reinforced by presentations to academic colleagues at JCU, the wider academic community, and through my collaborative work with Wiley Publishing. My curriculum design and innovations in digital learning increase student participation and ultimately improve student retention; this opens a brave new world in teaching accounting.

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<sup>2</sup> JCU Learning Spaces – The Snapshots: [Using technology in a Collaborative Theatre](#) and [Blending for interactive learning](#)