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The Double Flip: Applying a Flipped Learning Approach to Teach the Teacher and Improve Student Satisfaction

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Abstract

This paper describes a professional development (PD) program for academics at an Australian university designed to model good blended curriculum design and effective use of contemporary learning technologies. It evaluates a case study from the pilot of this program involving a postgraduate psychology course to illustrate one of the most challenging examples and in turn the potential impact of the approach developed. Academic developers face known barriers, including time constraints, interdisciplinary miscommunication, and change resistance, when introducing academics to new approaches to learning and teaching. This PD sought to promote change by modelling a shift from “sage on the stage” to “guide on the side,” through use of flipped and blended learning approaches by the academic developer. The case study found the teacher gained confidence in these methods and student satisfaction ratings increased.

Keywords

Professional development, teaching the teacher, modelling, self-efficacy

Cover Page Footnote

The authors would like to acknowledge the support of the excellent learning and teaching teams that helped develop and refine the program described in this article. We would especially like to acknowledge Sam Teague, who conducted the qualitative interviews with participants.

The Double Flip: Applying a Flipped-Learning Approach to Teach the Teacher and Improve Student Satisfaction

Universities face increasing pressures to adopt innovative pedagogies to meet the needs of a more diverse student body and improve student learning (Bonk 2007; Henderson, Selwyn & Aston 2015; Porter, Graham & Spring 2014). Moreover, in most Anglophone countries (specifically, the UK, US and Australia), a shift towards corporatisation and student-driven financing of universities has lifted the importance of enrolments and student retention, making teaching quality of greater concern (Macfarlane 2013, pp. 50-51). Academics have, however, often been employed on the basis of their research competence, with teaching ability thought to extend from expert content knowledge (Becker & Denicolo 2013). Consequently, many academics have little to no formal training in – or knowledge of – modern pedagogies and curriculum design (Bexley, James & Arkoudis 2011; Brew, Boud & Namgung 2011, p. 51).

Although professional-development programs focused on learning and teaching (encompassing teaching, curriculum and learning design) have been designed in response to this situation (Chalmers & Gardiner 2015), many academics have limited time available to undertake professional development or achieve formal qualifications in learning and teaching (Light, Calkins & Cox 2009), and have fallen back on the “sage on a stage” model of lecturing and face-to-face tutorials (Laurillard 2002, pp.1-3; Morrison, Lorens & Bandiera 2014; Robson & Turner 2007). This creates well-known problems for academic developers trying to encourage more-innovative approaches, especially those that are delivered through the (less familiar) blended or online delivery modes (Morrison 2014). Academics tend to resist new approaches when they are unaware of their potential and effectiveness (Lortie 1975). Furthermore, few are familiar with higher-education pedagogy research, which has promoted arguments for “communities of practice” to overcome these barriers to engaging in innovative teaching (Feger & Arruda 2008). Many are uncomfortable with technologies that facilitate the new approaches (Moerschell 2009). Finally, without training in or knowledge of pedagogy, most have no reference point for best practice (Ortlieb, Biddix & Doepker 2010). Any one of these issues is a challenge in its own right, but they are exacerbated when the unit identified for redevelopment is an existing one where the academic feels attachment to the content, curriculum and teaching methods as they stand. These feelings of attachment or “ownership” can solidify resistance based on assertions of academic independence (Knapper 2016). Together, these four issues constitute a formidable nexus of obstacles that renders didactic instruction by developers ineffective and necessitates new thinking about, and practices of, professional development for higher-education teachers.

This article reports on a “double-flipped” workshop solution designed by academic developers at an Australian university. It was formulated specifically to overcome this fourfold nexus of problems:

- Unfamiliar higher-education language and concepts;
- Discomfort with using unfamiliar technology to educate students;
- Lack of familiarity with research in higher-education pedagogies; and
- Resistance to change due to the high value placed on academic independence.

This approach, called “the double flip”, was a semester-long, flipped-classroom program of professional development that modelled best practice in curriculum and learning design, assessment, and effective use of online tools for teaching. It simultaneously and non-didactically introduced academics to contemporary higher-education language. Our aim was to inculcate

participants with ideas like the flipped classroom and blended learning so that they would apply these techniques in their own teaching activities. Through a detailed case study, it will be shown that the “double-flipped” approach of role modelling best practice shows strong potential for successfully breaking down the barriers academic developers face in up-skilling academics in contemporary pedagogies and technologies.

The problem

Moore’s (1993) analysis of the transactional distance between teacher and student (i.e. the literal communicative space between them) and of how well a teacher’s expectations and instructions are communicated across this space is increasingly relevant. It is not only pertinent to those who teach purely online as university teachers, but also to those who teach on campus, in fully face-to-face and blended modes.

Second, many academics may be unaware of the extent to which the student body has diversified and the increasing challenges that universities now face retaining “atypical” students (Henderson, Selwyn & Aston 2015; Morgan 2013, p.31). The design of curricula, learning activities and communication between student and teacher must be carefully addressed to create multiple points of access to reach and retain these “atypical” students, who now form an ever increasing proportion of the higher education student cohort: the far-flung student who cannot afford to come in on a given day; the stay-at-home parent; the shift-worker (Morgan 2013, p.31; Northedge 2003). This disjuncture can result in misunderstanding university management’s motivations behind introducing new pedagogies. Advances in technology and approaches to higher-education teaching are often criticised as being purely cost-saving measures designed to lift enrolments without increasing staff numbers (Knapper 2016; De Swart 2010). In addition, the introduction of new technologies, approaches or concepts, such as “blended learning” and “learning gamification”, can elicit negative reactions because the seemingly overt rationale for them is that they are fashionable; poor management of their introduction reinforces this negative connotation (Bayne 2015; Birnbaum 2000).

In reality, there are excellent pedagogic reasons for introducing new learning and teaching approaches. If executed correctly, a blended curriculum or a flipped classroom enhances what higher-education teachers want from students: self-guided reading and research, discussion and critical reflection. As Gibbs (1992) argues, the aim of all university classes is not to transfer knowledge within the confines of the teaching space, but rather to motivate self-guided, reflective learning. The “Oxbridge model” of single, one-on-one, weekly tutorials followed by the student writing a paper maximises time spent by students in personal study and reflection. The transactional distance is minimised, and therefore the student has a better chance of understanding the teacher’s expectations.

The Oxbridge approach is also labour-intensive from a teaching standpoint and impossible at most higher-enrolment universities. Scaffolding of learning through the use of online technologies – such as online simulations, interactives, discussion forums, chat tools and rooms and self-guided assessments – reduces the transactional distance in higher-enrolment universities and provides structure for students to engage in the same behaviour, and gain a sense of peer support. Better student reflection and self-guided learning leads to improved results, which in turn increases satisfaction and retention (Brockbank & McGill 2007).

Despite these compelling arguments, academic developers still encounter resistance from academics to adopting contemporary pedagogy. Unfamiliarity with new approaches and their underlying educational rationale means many academics do not understand the language or concepts academic developers use. This is not an issue purely of interdisciplinary miscommunication that requires the minimisation of higher-education disciplinary jargon, but rather a fundamental disconnection in understanding between a developer and an academic. Wittgenstein's (2010) argument that mutual understanding emerges from agreement on the underlying constituent meanings of a word, term or concept is applicable here. It is not simply misunderstanding: academics often have a different idea of what underpins concepts like the "flipped classroom" or "blended learning" (Bayne 2015). For example, some may think that flipping a classroom simply means moving some face-to-face teaching to the online space, rather than maximising the interactive face-to-face time by building complementary online resources. This lack of mutual agreement on the meaning of important concepts in learning and teaching may push academics away from considering new approaches. Without a clear example of what is meant, it is easier to continue to teach in the traditional "sage on the stage" manner. As Booth (2013) suggests, many academics feel not only that the traditional approach worked for them as students, it seems to work for them in their teaching as well.

To successfully demonstrate the value of these new approaches, then, the academic developer must enable the academic to become fluent in the language(s) of contemporary higher education; show the academic how these new approaches will improve student learning and satisfaction; and create examples, exemplars and points of reference to show how these approaches can be implemented and why the technology that supports them is useful.

The double flip: a new approach to teaching the higher-education teacher

Questions remain about the key principles higher-education teachers must know today to design and teach effectively (Gibbs & Coffey 2000; Gibbs 2014). According to Chalmers and Gardiner (2015), comprehensive evaluation frameworks have only recently been developed. It is therefore unclear what works best. Nonetheless, the existing approaches fall into three broad categories:

- Informal support provided by peers and line-managers (Nicholls 2001);
- Learning and curriculum design workshops (Salmon 2015);
- Formal, accredited qualifications, such as graduate certificates in higher education or affiliation with accrediting bodies like the Higher Education Academy, which are currently most popular in the United Kingdom (Stewart 2014) but are increasingly gaining popularity in Australia.

The efficacy of each approach must be weighed against the well-recognised corresponding pressures on academics. High teaching loads, research demands and requirements for seeking grant funding reduce academics' time for professional development (Burston 2016). Insufficient time makes it difficult to generate positive engagement ("buy in") in professional-development programs (Light, Calkins & Cox 2009). For instance, one- and two-day design workshops are too time-consuming for many academics, so generating high rates of participation is difficult; motivating participation in formal qualifications even more so (Borko 2004). By contrast, peer support can be highly beneficial to teaching and curriculum design because teachers tend to trust their peers, but this approach relies on accessing peers skilled in contemporary pedagogy (Warhurst 2006). Time poverty and lack of resources create additional challenges alongside the

problems with each of these approaches by making it difficult for academics to use ongoing university support, and for the university to provide it (Light, Calkins & Cox 2009).

When developing our program, we sought to maximise the strengths of existing professional-development programs whilst minimising the countervailing obstacles. To that end, we curated the best elements from existing learning and teaching professional-development programs, particularly peer and managerial support, workshopping rather than didactic instruction and a well-scaffolded structure and schedule.

Time poverty was the most obvious countervailing force. Our professional-development program grew out of a university-mandated quality-assurance mechanism called the “Unit Improvement Process” (UIP); “unit” meaning a “single course” or “subject” in this context) that required academics to address student satisfaction, performance and retention in their units. Our program retained this name and formalised the approach. We recognised that if we were going to increase what many academics already saw as an additional burden we had to minimise the time commitment. We addressed this by “flipping” the delivery mode.

“Flipped classrooms” have been part of teaching for decades and, as Gaughan (2014) notes, many academics use some form of flipped learning even if they are unaware they are doing so. They set pre-lecture readings, formative tasks and assessments that allow maximisation of face-to-face teaching periods. The flipped approach has taken a new turn in recent years with the advent of “blended learning” (Picciano 2013) and more-diverse student bodies (Devlin 2013). Flipping the classroom has come to mean minimising the amount of face-to-face time, whilst maximising the instructional utility of this time by moving much of the content and many learning activities into the online, asynchronous space. If this sort of flipped delivery is designed correctly, it should maximise students’ periods of self-reflection and learning, and lead to better outcomes.

Flipping the professional-development program minimised the contact hours and allowed greater flexibility in scheduling those times. In a 12-week program, four one-hour workshops each dealt with a core aspect of contemporary pedagogy:

1. Learning outcomes and curriculum;
2. Assessment design;
3. Blended learning and online tools; and
4. Career advancement.

These face-to-face workshops were embedded in the middle of four self-paced learning modules, each to be completed over three weeks, and were preceded and followed by reflective tasks and learning assignments designed to bolster critical discussion in the workshops. The process is presented in Table 1.

Table 1. The 12-week Unit Improvement Process (UIP) *

Module Title and Topic	Week	Activities
“Scope for Change” Learning outcomes and curriculum alignment	1	Pre-Workshop Tasks
	2	Workshop 1
	3	Post-Workshop Tasks
“Assessment is Learning” Assessment design and alignment with learning outcomes	4	Pre-Workshop Tasks
	5	Workshop 2
	6	Post-Workshop Tasks
“High-Impact Blended Learning” Use of technology	7	Pre-Workshop Tasks
	8	Workshop 3
	9	Post-Workshop Tasks
“Evaluation and Professional Development” Career advancement	10	Pre-Workshop Tasks
	11	Workshop 4
	12	Post-Workshop Tasks

* Note: “Unit” means a “single course” or “subject”.

The overarching structure of this program followed Wiggins and McTighe’s (2005) “reverse design” model by urging participants to think about their unit backwards. They would first critically reflect on the broad aims for the students before working backwards through assessments, learning activities and questions of how best to deliver the teaching (online and face-to-face, synchronous and asynchronous). This approach to curriculum design ensured that the program would achieved its intended aims and that there was constructive alignment between these aims, the assessments and the activities. It was also meant to create a clear, connective narrative for the unit that students could understand. Our participants were provided with an online description of the Wiggins and McTighe approach in the first week and informed about it in the first face-to-face session in Week 2. We explained that the professional development was designed to help participants develop the best unit they could. The narrative for the PD program therefore became building a unit that the participants and their students could be satisfied with. Through modelling this process, we intended to show our participants the value of having clear objectives and a narrative that students could understand, and that in turn carried them through the difficult stages of instruction and self-reflective learning.

With a clear narrative established for the professional-development program, the program itself was in turn set up like a typical university course of study. We aimed to model best practice in flipping the classroom, and in the use of asynchronous learning activities and online tools. Participants engaged with the content on a weekly basis through the university’s online learning management system (LMS), Blackboard. The LMS site was carefully designed to look good and be easy to use. Its structure, icons, colour scheme and artwork could be copied and used for the participants’ units if they chose. Tasks were presented weekly through the LMS. Some included introductory videos and connection to external tools that could aid the reflective learning process. We placed each participant in an online group with other members of their academic discipline so that each could receive asynchronous peer support whilst progressing through the program. We also created a public portfolio space on the LMS for participants to upload their work and share it with their colleagues (if they chose to do so) once they finished.

Participants undertook the program alone, but establishing groups and creating portfolio spaces aligned with our other aim for it to become a space for fostering communities of practice that could cement participants’ learning and propagate it more widely across the faculty. Communities of practice have been shown to aid the uptake of innovative learning and teaching practices (De

Swart 2010) and support academic engagement with professional-development programs (Feger & Arruda 2008; Ortleib, Biddix & Doepker 2010). Therefore, participants were encouraged to invite disciplinary colleagues along to the workshops for support. These colleagues could assist with questions around content, and help with the pre- and post-workshop tasks. It was intended that these groups would then continue discussing learning and teaching within their disciplines, once the participant had finished the professional-development program.

By flipping our professional-development program and modelling best practices, it was hoped that we could in turn flip participants' thinking, and their approach to designing and teaching their own units. This double-flip was not didactic, but creative and exploratory. We aimed to stoke curiosity and therefore self-initiated innovation, thereby increasing "buy-in".

Case Study: *Health Psychology Unit*

One of the most challenging tasks academic developers face is helping an experienced research academic who is new to teaching and has encountered poor results due to their lack of teaching experience. We encountered this situation when piloting the double-flipped professional-development program. One participant taught a difficult postgraduate psychology unit and was referred for assistance in the first semester of 2016 because of poor student satisfaction and performance in delivery the prior year. Since 2015, this academic has coordinated a unit teaching Health Psychology in a postgraduate clinical psychology program. She came to the university after spending 30 years as researcher in the health sector and was appointed as a full professor on the basis of this research track record and industry experience, yet she had virtually no track record in teaching. She had previously given the occasional guest lecture and developed and delivered communication-skills training workshops for health professionals, but had never coordinated a unit, led a tutorial group or undertaken any formal teacher training. She had little knowledge of the logistics of unit coordination, including setting assignments, granting extensions, dealing with student complaints or any of the myriad other – often unspoken – tasks of a teaching academic.

The participant was inexperienced and unprepared for tertiary teaching generally, let alone the additional challenges posed by a student cohort that is exhausted – identified in the literature as "burned out" (Schaufeli, Martinez & Pinto 2002) – and therefore challenging to engage. This Health Psychology unit is the last requirement for the university's post-graduate masters and doctoral clinical-psychology programs. Both programs qualify graduates for practice as clinical psychologists ("psychologist" is a legally protected term in Australia). The unit covers principles of psychology and behaviour change in applied general healthcare settings, with a focus on the bidirectional relationships between biological, psychological, behavioural and social determinants of health and illness. The topics include health promotion and public-health campaigns; coping with chronic or life-threatening illness; understanding the health system and doctor-patient communication; survivorship and rehabilitation; and pain and palliative care.

Given the high incidence of physical and psychological comorbidity, it is critical that clinical psychologists have an in-depth appreciation of the relationship between physical and mental health. However, the lack of overt connection to students' future careers created challenges for teaching, a problem compounded by the unit's place at the end of the program. Students in the masters program complete at least six years of tertiary study before taking the unit. Those in the doctoral program complete at least seven. The students are focused on their forthcoming post-study careers as clinical psychologists. Moreover, the vast majority study part-time because to be accepted into either program requires experience working in a clinical environment, and nearly all

are provisionally registered as psychologists in Australia. In the time frame covered by this paper, classes were delivered weekly in the evening from 5:30 pm to 8:30 pm over the winter months.

Throughout their long duration of study, these students also experienced a highly competitive study environment, having consistently been at the top of a narrowing field of high performers. In Australia, only about 6% of students qualify to study for an honours year (fourth year), completion of which is necessary for entry to the post-graduate psychology programs. Only about 14% of honours graduates achieve sufficiently high grades to gain entry to these postgraduate programs.¹

Taken altogether – the end of long period of study, evening classes combined with professional work and high levels of competition – contribute to a student cohort exhibiting signs of burnout. Burnout is the hypothesised opposite of engagement (Schaufeli, Martinez & Pinto 2002). It tends to narrow student focus, making teaching difficult. A systematic review of medical programs found that many students were fixated on leaving university, which precluded deeper reflection on their potential careers (IsHak, Nikraves & Lederer 2013). Similar exhaustion has been found in law students in Australia (Bergin & Pakenham 2015), and may apply to psychology students (De Vibe, Solhaug & Tyssen 2013).

Teachers dealing with this level of student exhaustion struggle to encourage engagement, let alone convey the professional value of the content (IsHak, Nikraves & Lederer 2013). Innovative approaches to curriculum and learning design are required when dealing with burned-out students. In fact, Dyrbye, Thomas and Harper (2009) found the learning environment, including curriculum and learning design, was “critical” for improving such students’ engagement and their satisfaction.

Evident “burn out” combined with the participant’s inexperience teaching led to negative student feedback when she first taught the unit in 2015. She undertook our double-flip professional development program as a result. Some of the problems were immediately apparent. In 2015, the delivery was didactic and focused on content, and lacked constructive alignment between the learning outcomes and the assessment. The unit was timetabled as a weekly, three-hour face-to-face seminar from 5:30pm to 8:30pm. The vast majority of time was devoted to content delivery. The participant covered in detail all the topics required by the Australian Psychological Accreditation Council, with a strong focus on the research evidence related to these topics. Students were then assessed on their content knowledge and briefly on motivational interviewing, a skill required by the Council that was taught in one seminar by an outside expert.

The participant worked throughout the professional-development program on revising the learning objectives and aligning the curriculum. In the first workshop, she identified that the key goal of the unit was for the students to understand the powerful interplay between physical illness, psychological well-being, health behaviour and social context. Clinical psychologists must know how to understand the “biopsychosocial” interplay within a client’s life, and the ramifications of this for their psychological practice became the narrative around which the rest of the curriculum was built.

To that end, the participant reorganised the curriculum in 2016 so that the focus of the learning activities was the application of evidence-based knowledge in health psychology to real-world clinical problems. The participant also adopted a “blended” approach to teaching the unit, flipping the classroom in much the same way as the professional-development program had modelled.

¹ Calculated from 37 psychology clinical graduate programs in Australia and an average of 10 places per program, versus 70 places per program in honours and postgraduate diploma fourth-year places.

Face-to-face seminars were reduced from three hours to two, and shorter seminars were roughly divided into halves: an interactive seminar and small-group work. Students engaged with the necessary, relevant content prior to coming to class through pre-set self-directed learning. Classes were then devoted to, first, extending the relevant content via the interactive seminar and, second, applying knowledge to a practical problem related to their “clients”. Examples included: a) role-playing in pairs using motivational interviewing skills to counsel a person in health-behaviour change; b) working in small groups to apply the principles of health promotion to design a public-health initiative for alcohol harm minimisation; and c) again, working in small groups to design a brief, group-based psychotherapy for people completing curative treatment for cancer based on understanding of cancer survivorship and group therapy.

The assessments were redesigned to support the new curriculum. The first assessment became a small case study worth 10%. Students created a “client” from either a real client (identity protected) or an invented one, and described the potential bidirectional relationship between a serious, chronic illness and the patient’s psychological state and social context. The second assignment, a critical-review essay, was worth 60%, which was scaffolded by drawing directly on the work conducted in the first small assignment. According to the instructions, the student was to “present and critically evaluate the research evidence relating to either risk factors/prevention *or* management/treatment related to one biopsychosocial aspect of the chronic medical condition from [the] case study in assignment 1”. This assignment allowed the student to explore the psychological manifestation of physical ailments more deeply, but also to see how the research presented in the unit directly related to their clinical practice.

The third assignment related even more explicitly to the students’ roles as future clinical psychologists. To test their abilities in motivational interviewing, each student was to write an “individual care report”, in which they “describe[d] an approach to addressing the health risk behaviour articulated in the case from assignment 1 using motivational interviewing techniques”.

Together, a new narrative for the unit, a blended approach and more closely related assessments were excellent foundations for improved outcomes, which included a rise in student feedback scores and positive qualitative feedback about improvements in the clarity and relevance of the learning experience

Evaluating the impact of the double-flipped approach

Four sources of data were used to analyse the effects of UIP in the participant’s unit, Foundations of Health Psychology: two quantitative and two qualitative. The quantitative data is from the student feedback surveys (SFS) conducted by the university at the end of each semester, and the participant’s records of class attendance. The qualitative data is from the students’ comments in the SFS, and the participant’s observations as recorded in a qualitative interview conducted by a research assistant.

Quantitative data:

The SFS data was collected for 2013-2016. During 2013 and 2014, the unit had a different convener. The participant took over in 2015. The numerical response data for all four years was collected and tabulated to show the impact of changing the convener in 2015, and the results of the UIP in 2016. The attendance data was also tabulated and reported as complementary indicator of student engagement.

Table 2 shows the results of responses to three key questions on the SFS from 2013 to 2016. The SFS posits assertions about the unit, which students respond to via Likert scales. The surveys were simplified in 2015. Therefore, Table 2 presents the mean of responses to two statements for each of the four years: “Overall, I am satisfied with this unit” and “The unit is well organised”. A third statement, “The assessment requirements were clear”, was included for 2015 and 2016. This question was not asked in 2013 and 2014, and was therefore not included for those years.

Table 2. Results by mean of student feedback for Foundations of Health Psychology, 2013-2016

Student Feedback Item Coordinator →	2013	2014	2015	2016
	Another Unit Mean/Faculty Mean*	Another Unit Mean/Faculty Mean*	The Participant Unit Mean/Faculty Mean*	The Participant Unit Mean/Faculty Mean*
Overall, I am satisfied with this unit	9 (8.10)**	9.33 (8.03)	4.86 (7.76)**	9.88 (8.38)
The unit is well organised	9 (8.27)	8.67 (8.22)	6.29 (7.79)	9 (8.23)
The assessment requirements were clear	Not Used	Not Used	6.71 (7.77)	9 (8.31)
<i>n</i> =Respondents	<i>n</i> =6 (<i>n</i> /23)	<i>n</i> =3 (<i>n</i> /22)	<i>n</i> =7 (<i>n</i> /24)	<i>n</i> =16 (<i>n</i> /24)

* For each, the mean across the faculty is provided in brackets. The number of respondents (*n*) out of the total student cohort is also provided.
 ** The university changed the Likert scale in 2015 from a six-point scale (1 = “Strongly Disagree” to 6 = “Strongly Agree”) to a 10-point scale (1 = “Strongly Disagree” and 10 = “Strongly Agree”). To display the data consistently, the distributions in the original six-point scales used in 2013 and 2014 were converted to the 10-point scale by multiplying the data by 1.67, rounding to the nearest whole number and redistributing. So, a 6 on the 2013-14 scale indicating “Strongly Agree” became a 10 on the 2015-16, 10-point scale (6 x 1.67=10.02, rounded to 10).

The student feedback data shows the impact of an inexperienced and, in the participant’s words, “disorganised”, new teacher. Despite a very low number of respondents, student assessments of the unit had been high in previous years: 9/10 for 2013 and 9.33/10 for 2014. Students also perceived the unit to be well organised then (9/10 for 2013 and 8.67/10 for 2014), showing a strong correlation between satisfaction and perceived organisation. All of these responses exceeded faculty averages.

Student satisfaction dropped to 4.86/10 when the participant took over in 2015. Perceptions of organisation fell to 6.29/10. Students also found that the assessments lacked clarity (6.71/10). These responses were below faculty averages.

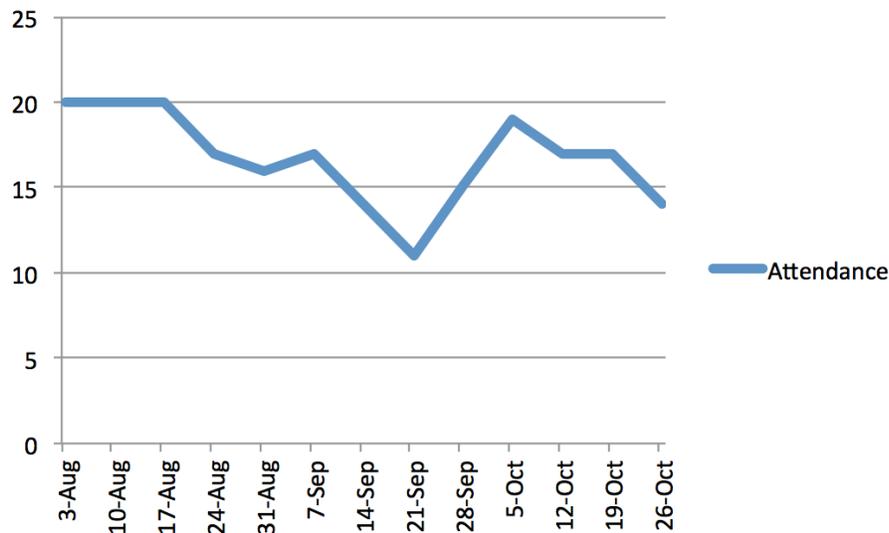
The number of respondents was low in 2015. Only seven out of 24 students completed the SFS. From the participant’s observations, the low response rate suggests a lack of engagement in 2015, and aligns with the students’ poor evaluations of the unit. She also saw low student attendance in weekly seminars. However, it is important to note that there were also low response rates in 2013 and 2014, when student feedback was positive. We therefore cannot know if response rates are a good indicator of engagement in all cases.

All figures improved in 2016 following the UIP intervention, including the student response rate, which rose from seven out of 24 to 16 out of 24. This increase aligns with an improved student satisfaction score of 9.88/10 (against a faculty average of 8.38/10).

The participant observed higher attendance in classes during 2016. In 2015, the number of students attending sometimes fell as low as five out of 24 (by the participant’s memory). But weekly sign-up sheets recording attendance in 2016 revealed consistently stronger participation

(Figure 1). As observed in other studies, student attendance waned throughout the semester. Even at their lowest points (Week 7 before the mid-semester break and Week 12 before the end of semester), the numbers were still stronger than in 2015, supporting O’Flaherty’s and Phillips’s (2015) finding that attendance is improved in higher education when teachers develop more-inviting learning environments.

Figure 1. Student attendance in Foundations of Health Psychology, 2016



Qualitative data:

The qualitative data is useful for analysing why student satisfaction dropped in 2015, and then improved in 2016 following the UIP. No qualitative data is available for 2013 and 2014, when a different person convened the unit.

Responses for 2015: Student comments from 2015 suggest they struggled to see the relevance of the content to their clinical practice. For example, one student wrote of the need for “more relevance to clinical psychology and skills-based learning beyond simple repetition”. Another “felt the lectures were quite research-heavy and too long”.

Student comments reveal an overarching sentiment that the content did not align with their expectations of a clinical-psychology program. The first wrote, “This unit did not have any practical application/opportunity to practice skills. This is a critical part of postgraduate training and simply covering theory during every lecture, I felt was a bit basic and more suitable to undergraduate training.”

A second student commented: “For a postgraduate degree for clinical psychology students, it is really important to have a clinician presenting in each class, to give us some practical clinical examples and ‘in the field’ knowledge. Although the research studies were interesting, this is not the sort of knowledge I/we were after unfortunately”. The lecturer is not a clinical psychologist, so in 2015 relied on the students making the connection between the content presented and their clinical practice.

Not all the comments were negative. The same students did note the lecturer was “extremely enthusiastic”, “very dynamic” and “a fantastic lecturer”. However, these positive assessments of her personally did not translate into good SFS scores. Instead, the misalignment of the content with their expectations affected the students’ overall assessment of the unit.

Responses for 2016:

There was a marked change in the student comments in 2016. The participant was seen as “enthusiastic and passionate”, “enthusiastic and well organised”, “very kind and accommodating...always enthusiastic and really funny at times”, “dynamic and engaging” and “excellent”.

The areas students identified for improvement similarly capture improved perceptions of the unit. After a positive initial comment, one student suggested, “some more clinical focus on the course content”. Another, after saying the participant was “excellent”, similarly asked for “just a bit more practitioner and a bit less research focus please” and included a smiley face: ☺. These comments may reflect a continued misalignment between the taught content and the students’ desires; but the absence of an effect on the SFS scores suggests an improved overall assessment of the unit that diminished the relative importance of such desires.

The participant’s observations:

The participant was interviewed by an independent researcher using a semi-structured, qualitative interview, as part of a wider investigation into the effectiveness of UIP. This interview lasted for approximately 40 minutes and covered her personal history, prior teaching experience, teaching experience in the Health Psychology unit and her perceptions of UIP. (She consented for her identity to be disclosed to the developers of UIP and for her identifiable data to be used for this article.)

The participant identified a profound change in her own teaching experience from 2015 to 2016 after participating in UIP. The changes based on self-articulated categories are described in Table 3: approach to teaching; method of delivery; and content selection.

Table 3: Participant’s assessments of her teaching experience, 2015 vs. 2016

Area of Teaching/Unit Coordination	2015	2016
1. Approach to teaching	“I was too nice. I would change due dates etc. when students asked.” “I was inconsistent.”	“Students need boundaries and need to know what they’re doing.” “A teacher needs to be organised.” “Teaching is the highest expression of human endeavour.”
2. Method of delivery	“I’m a researcher, so I was giving them three hours of didactic lectures. It was all I knew.”	Regarding a blended approach: “It is working like a dream.” “Engages students.”
3. Content selection	“I taught them what I knew.”	To engage students, “content must be made relevant to what [the students] perceive they will be doing in a professional context.”

In 2015, her approach to teaching was “too nice”. For example, she gave extensions whenever students asked and changed due dates to suit perceived disgruntlement in the cohort. As she acknowledges, the result was that she “was inconsistent”. This lack of consistency likely translated into perceived disorganisation. In 2016, however, she imposed boundaries, recognising that students required a teacher who is organised. Perceived organisation has been shown to positively

affect student satisfaction online (Swan 2001), and likely translates into reassurance in the face-to-face and blended environments as well.

The participant's understanding of how to deliver a unit changed between 2015 and 2016. She moved from didactic lectures, which were "all [she] knew", to a blended approach (online content and in-class activities) that "worked like a dream". The three-hour seminars were reduced to two hours. Students engaged with the content prior to class, and then undertook learning activities in class, such as mock-motivational interviews in which one student played the role of a cancer patient and the other the therapist. This approach brought the content to life for the students and demonstrated its relevance to their professional careers as clinical psychologists. This change is reflective of a broader shift in higher education, which Nixon has described as "a view of learning not as something that happens to the students, but something that they themselves make happen" (Nixon 1992, p.10).

The participant's approach to content selection also changed. Rather than just teaching the students "what [she] knew", in 2016 she recognised that content must be made explicitly relevant to the student cohort.

Discussion

Our aim was to create a professional-development program that addressed a well-known skills gap for many academics: they are content experts, but lack formal teacher training, which affects the quality of their units, instruction and, consequently, student learning. Professional-development programs for academic teaching face known problems. These start with 1) the well-known issue of academic time poverty, which makes it difficult for academic developers to motivate participation in professional-development programs (Light, Calkins & Cox 2009); 2) lack of familiarity with higher-education research and terminology, which hinders communication between academic developers and academics. As Yan and Berliner (2013) show, language barriers between teacher and student make student confusion and anxiety, and teacher frustration, more likely. The same applies when teachers *are* the students; and 3) a lack of familiarity with higher-education language, which strengthens existing academic resistance to adopting new learning and teaching practices (Knapper 2016).

In response to these barriers, we extended the Wiggins and McTighe (2005) "reverse design" model and took academic time constraints into consideration by "flipping" the program. We also let the participant guide the process so that the learning was ultimately empowering. The program addressed a unit the participant was teaching with the aim of enhancing its curriculum design, assessment and use of technologies to improve the student experience.

Rather than didactically instructing the participant, the academic developer took a guiding role. The formative learning and design occurred outside the face-to-face sessions and was facilitated by online activities and relevant literature. The academic developer's face-to-face time with the participants was limited to four one-hour workshops. We hoped to promote flipped design by having the participant experience flipped learning; thus modelling best practices invoked a "double flip". Flipping the program allows the academic developer to move to the side and become facilitator rather than instructor (Morrison 2014). Participants are guided to think about their unit in a new way, but the formative design and rethink occurs outside the face-to-face space and is aided by reflective tasks. This approach models and facilitates a reflexive-reflective learning

cycle for the participant, which is aided by direct experiences. This experiential approach to learning bolsters the participant's knowledge, comfort and, ultimately, confidence to put learning into practice.

This building of the participant's self-efficacy is vital to the professional-development program's potential for success, as was clearly evident in the pilot case described in this paper. One of the problems the participant faced initially – and which reflects the experience of many academics (Bexley, James & Arkoudis 2011; Brew, Boud & Namgung 2011, p.51) – is that she was a content expert, yet lacked skills and confidence in teaching. Self-efficacy is a key concept in behaviour change and a useful means for understanding why teachers adopt new practices. Self-efficacy is defined as a person's belief in his or her ability to succeed in a given task. The higher one's self-efficacy, the more likely one is to engage in a particular behaviour and succeed (Bandura 1997). According to Bandura (1997), an individual's self-efficacy derives from four sources. First, *mastery experience* is a reflection and analysis of one's actions in relation to the task. Second, *social modelling* refers to gaining self-efficacy through observing others succeed at the task. Third, self-efficacy can be promoted by *social persuasion* or encouragement from others. Fourth, *physiological and affective reactions*, such as feeling composed and assured, can influence a person's confidence in achieving a task.

The UIP successfully addressed each of these four aspects of self-efficacy. This was important because senior faculty management encouraged participation in the UIP when a unit received low student-satisfaction ratings (social persuasion). Employing the “double flip” model with self-directed blended learning in the professional-development process demonstrated the new pedagogical techniques (social modelling). In the pilot case, qualitative interview data indicates that the participant felt “more organised” and calm in her teaching approach (physiological and affective reactions). The subsequent student evaluations indicated that student satisfaction had risen after the UIP learning experience (mastery).

A participant-guided, flipped professional-development process also allowed the participant to become familiar with the language of contemporary higher education. One of the major obstacles academic developers face is overcoming the language barriers that exist between the higher-education discipline and other areas of academia. This problem is partially alleviated by building the participant's confidence, thus making the “double-flipped” approach stronger. Our approach went beyond just up-skilling the participant; it also provided the tools to put the best ideas into practice.

This case study shows the potential for “double-flipped” professional-development programs that seek to simultaneously model best practices and empower participants in their teaching. It minimises didactic instruction during academic development, which aids receptivity. In this case, the participant was able to turn around a poorly rated unit with burned-out students, dramatically improving student satisfaction and outcomes. A major limitation of this work is that we are reporting on the outcomes of a single highly motivated participant. UIP may not demonstrate the same level of success with less-motivated individuals. Consequently, further evaluation of the UIP is required to demonstrate the efficacy of this approach in a larger sample of academic participants, and a longer-term assessment of student responses is required to show the effects. This work is currently underway. Nonetheless, these initial findings are promising.

Conclusions and future directions

Currently in higher education, student diversity is increasing, along with demands to adopt contemporary, innovative and effective approaches to learning and teaching. There are known barriers to spreading these approaches amongst largely research-focused academics. This paper has demonstrated the efficacy of a professional-development program for academic teachers that models best practice in curriculum and learning design by using a flipped approach. Further evaluation is underway of other cases in which this approach was employed. In all, 30 academics across the university have now been exposed to variations of this approach, and further assessment of their experiences and the corresponding outcomes for students in their classes will enhance our understanding of its efficacy. What is clear, however, is that this “double-flipped” model for up-skilling academic teachers can bridge the gap between academic developers and academics new to teaching, and helps to build self-efficacy in participants. Both of these outcomes are vital for their adopting new approaches to teaching. From the pilot described in this paper, this program also shows potential to improve student outcomes. Future research should expand to examine institutional receptivity, comparisons of impact on different units and the long-term effects on student outcomes.

References

- Bayne, S 2015. What's the matter with ‘technology-enhanced learning’? *Learning, Media and Technology* 40(1), pp. 5-20.
- Becker, L & Denicolo, P 2013. *Teaching in higher education*. Sage, New York.
- Bergin, A & Pakenham, K 2015. Law student stress: Relationships between academic demands, social isolation, career pressure, study/life imbalance and adjustment outcomes in law students. *Psychiatry, Psychology and Law*, 22(3), pp. 388-406.
- Bexley, E, James, R, & Arkoudis, S 2011. *The Australian Academic Profession in Transition: Addressing the Challenge of Reconceptualising Academic Work and Regenerating the Academic Workforce*. Centre for the Study of Higher Education, Melbourne.
- Birnbaum, R 2000. The life cycle of academic management fads. *The Journal of Higher Education*, 71(1), pp. 1-16.
- Bonk, C J & Graham, C R 2012. *The Handbook of Blended Learning: Global Perspectives, Local Designs*. John Wiley & Sons, New York.
- Booth, T 2013. *Policies for Diversity in Education*. Routledge, New York.
- Borko, H 2004. Professional development and teacher learning: Mapping the terrain. *Educational Researcher*, 33(8), pp. 3-15.
- Brew, A, Boud, D, & Un Namgung, S 2011. Influences on the formation of academics: The role of the doctorate and structured development opportunities. *Studies in Continuing Education*, 33(1), pp. 51-66.

- Brockbank, A & McGill, I 2007. *Facilitating Reflective Learning in Higher Education*. McGraw-Hill Education, London.
- Burston, J 2016. Realizing the potential of mobile phone technology for language learning. *IALLT Journal: A Publication of the International Association for Language Learning Technology*, 41(2), pp. 56-71.
- Chalmers, D & Gardiner, D 2015. An evaluation framework for identifying the effectiveness and impact of academic teacher development programmes. *Studies in Educational Evaluation*, 46, pp. 81-91.
- De Swart, SM 2010. Learning fellows seminars: A case study of a faculty development program using experiential learning theory to improve college teaching. Case Western Reserve University, Cleveland, OH.
- De Vibe, M, Solhaug, I & Tyssen, R 2013. Mindfulness training for stress management: a randomised controlled study of medical and psychology students. *BMC Medical Education*, 13, pp. 107-118.
- Dyrbye, L N, Thomas, M R & Harper, W 2009. The learning environment and medical student burnout: a multicentre study. *Medical Education*, 43(3), pp. 274-282.
- Feger, S & Arruda, E 2008. *Professional Learning Communities: Key themes from the Literature*. Education Alliance, Brown University, Providence, RI.
- Gaughan, J E 2014. The flipped classroom in world history. *History Teacher*, 47(2), pp. 221-244.
- Gibbs, G 1992. Control and independence. Teaching large classes in higher education: How to maintain quality with reduced resources. *Teaching Large Classes in Higher Education*, Graham Gibbs & Alan Jenkins (eds.), Kogan Page, London, pp. 37-59.
- Gibbs, G 2014. Graham Gibbs on teaching lecturers to teach. Could training schemes for teachers help to improve student learning? Asks Graham Gibbs. *Times Higher Education*. Viewed 7 July 2017 at <https://www.timeshighereducation.com/news/graham-gibbs-on-teaching-lecturers-to-teach/2016202.article>.
- Gibbs, G & Coffey, M 2000. Training to teach in higher education: A research agenda. *Teacher Development*, 4(1), pp. 31-44.
- Henderson, M, Selwyn, N & Aston, R 2017. What works and why? Student perceptions of “useful” digital technology in university teaching and learning. *Studies in Higher Education*, 42(8), pp. 1567-1579.
- IsHak, W, Nikraves, R & Lederer S 2013. Burnout in medical students: systematic review. *Clinical Teacher*, 10, pp. 242-245.
- Knapper, C 2016. Does educational development matter? *International Journal for Academic Development*, 21(2), pp. 105-115.

- Laurillard, D 2013. *Rethinking University Teaching: A Conversational Framework for the Effective Use of Learning Technologies*. Routledge, New York.
- Light, G, Calkins, S & Cox, R 2009. *Learning and Teaching in Higher Education: The Reflective Professional*. Sage, New York.
- Lortie, D C 1977. *Schoolteacher: A Sociological Study*. University of Chicago Press, Chicago.
- Macfarlane, B 2013. *Intellectual Leadership in Higher Education: Renewing the Role of the University Professor*. Routledge, New York.
- Moerschell, L 2009. Resistance to technological change in academia. *Current Issues in Education*, 11(6). Viewed 2 February 2017 at <https://cie.asu.edu/ojs/index.php/cieatasu/article/view/1578/622>.
- Moore, M G 1993. Theory of transactional distance. *Theoretical Principles of Distance Education*, 1, pp. 22-38.
- Morgan, M 2013. *Supporting Student Diversity in Higher Education: A Practical Guide*. Routledge, New York.
- Morrison, L J, Lorens, E & Bandiera G 2014. Impact of a formal mentoring program on academic promotion of Department of Medicine faculty: a comparative study. *Medical Teacher*, 36(7), pp. 608-614.
- Nicholls, G 2014. *Professional Development in Higher Education: New Dimensions and Directions*. Routledge, New York.
- Nixon, J 1996. Professional identity and the restructuring of higher education. *Studies in Higher Education*, 21(1), pp. 5-16.
- Northedge, A 2003. Rethinking teaching in the context of diversity. *Teaching in Higher Education*, 8, pp. 17-32.
- Ortlieb, E T, Biddix, J P & Doepker G M 2010. A collaborative approach to higher education induction. *Active Learning in Higher Education*, 11, pp. 109-118.
- Picciano, A G, Dziuban, C D & Graham C R 2013. *Blended Learning: Research Perspectives*. Routledge, New York.
- Porter, W W, Graham, C R & Spring, K A 2014. Blended learning in higher education: Institutional adoption and implementation. *Computers & Education*, 75, pp. 185-195.
- Robson, S & Turner, Y 2007. "Teaching is a co-learning experience": academics reflecting on learning and teaching in an "internationalized" faculty. *Teaching in Higher Education*, 12(1), pp. 41-54.
- Salmon, G 2015. Carpe Diem – A team based approach to learning design. Viewed 15 August 2017 at <http://www.gillysalmon.com/carpe-diem.html>.

- Schaufeli, W B, Martinez, I M & Pinto, A M 2002. Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology*, 33, pp. 464-481.
- Stewart, C 2014. Transforming professional development to professional learning. *Journal of Adult Education*, 43(1), pp. 28-33.
- Van Waes, S, Van den Bossche, P & Moolenaar, N M.2015. Uncovering changes in university teachers' professional networks during an instructional development program. *Studies in Educational Evaluation*, 46, pp. 11-28.
- Warhurst, R P 2006 "We Really Felt Part of Something": Participatory learning among peers within a university teaching-development community of practice. *International Journal for Academic Development*, 11, pp. 111-122.
- Wiggins, G P & McTighe, J 2005. *Understanding by Design*. ASCD, Alexandria, VA.
- Wittgenstein, L 2010. *Philosophical Investigations*. John Wiley & Sons, New York.
- Yan, K & Berliner, D C 2013. Chinese international students' personal and sociocultural stressors in the United States. *Journal of College Student Development*, 54(1), pp. 62-84.