Making curriculum visible: Engaging students in learning outcomes and career relevance through a multi-dimensional, interactive map

2016 OLT National Teaching Fellowship

Final report, May 2018

Associate Professor Lisa B. G. Tee

Curtin University

https://www.mycoursemap.net.au/
Support for the production of this report has been provided by the Australian Government Department of Education. The views expressed in this report do not necessarily reflect the views of the Australian Government Department of Education.

With the exception of the Commonwealth Coat of Arms, and where otherwise noted, all material presented in this document is provided under Creative Commons Attribution-ShareAlike 4.0 International License [creativecommons/4.0/license]

The details of the relevant licence conditions are available on the Creative Commons website (accessible using the links provided) as is the full legal code for the Creative Commons Attribution-ShareAlike 4.0 International License [creativecommons/4.0/legalcode]

Requests and inquiries concerning these rights should be addressed to:
Learning and Teaching Support
Student Information and Learning Branch
Higher Education Group
Department of Education

GPO Box 9880
Location code C50MA7
CANBERRA ACT 2601

<learningandteaching@education.gov.au>

2019

Acknowledgements

I would like to acknowledge Curtin University for supporting my fellowship and the generous contributions of all who have participated in the fellowship activities and shared their experience and support for the successful completion of this fellowship.

My thanks go to my fellowship champions Dr Manuel Serrano Santos (QUT), Professor Ieva Stupans (RMIT), Dr Cindy O’Malley (RMIT), Associate Professor Simon Bedford (UOW), Dr Tin Fei Sim (Curtin), Angela Pollard (Curtin), William Tee (Victoria University), and Leanne McCance (Monash University) for providing inspiration and willingness to facilitate the fellowship workshops and acting as a conduit in engaging others at their institutions and disseminating the fellowship goals and conversation. Thanks to all the other champions for their interest in collaboration beyond the fellowship: Associate Professor Megan Dalton (Australian Catholic University), Dr Jennifer Scott (University Massey), Dr Katharina Wolf (Curtin), Dr Nabeel Albashiry (Auckland University), Helen Godwin (Curtin), Natalie Gasson (Curtin), Laetitia Hattingh (Griffith), Heather Pate (ECU), and Gerry Rayner (Monash University).

I am most grateful to my mentors – Professor Nicolette Lee (La Trobe University), Associate Professor Lynne Roberts (Curtin), Professor Dawn Bennett (Curtin), and Miles Burke (BAM Creative) – for their invaluable advice and support throughout the fellowship. Thanks also to my reference group: Professor Romy Lawson (Murdoch University), Professor Bev Oliver (Deakin University), Professor Geoffrey Crisp (University of New South Wales), and Miles Burke (BAM Creative).

Thanks to Dr Matthew Hilliers (Monash University) for organising the ASCILITE webinar to showcase the fellowship program and MyCourseMap, which has successfully generated national and international impact. Thanks also to Megan Philips for assisting with dissemination at the Prato conference. My thanks also go to HERDSA, ASCILITE, and ALTF for providing a digital platform to facilitate dissemination and impact.

I would also like to thank my amazing research assistant, Kristen Seaman, for her work in facilitating the workshops, data analysis, and preparing the fellowship report and journal articles for publication; Linda Lily for her assistance with the ethics application; and Dr Oksana Burford for supporting the program and designing flyers for dissemination.

Finally, I would also like to thank my fellowship evaluator, Dr Allan Goody, for his support in attending workshops and providing invaluable advice in relation to maintaining a strong focus on dissemination and impact; Professor Jill Downie (DVC Academic, Curtin) for her continuing support throughout the fellowship; and Professor Kevin Batty and the School of Pharmacy and Biomedical Sciences for their support and providing the opportunity to conduct academic conversation across other institutions in Australia and beyond.
List of acronyms used

ASCEPT  Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists
ASCILITE  Australasian Society for Computers in Learning in Tertiary Education
APSA  Australasian Pharmaceutical Science Association
CLO  course learning outcomes
ECU  Edith Cowan University
FGD  focus group discussion
GA  graduate attributes
HERDSA  Higher Education Research and Development Society of Australasia
MCM  MyCourseMap
QUT  Queensland University of Technology
TEQSA  Tertiary Education Quality and Standards Agency
UOW  University of Wollongong
VU  Victoria University
WAND  West Australian Network for Dissemination

Preface

Note that the name for courses varies across different institutions and states in Australia. Some examples are depicted in the following table.

<table>
<thead>
<tr>
<th>Degree of study</th>
<th>Subject within a degree of study</th>
<th>Example of institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td>Unit</td>
<td>Curtin University</td>
</tr>
<tr>
<td>Program</td>
<td>Course</td>
<td>RMIT</td>
</tr>
<tr>
<td>Course</td>
<td>Subject</td>
<td>UOW</td>
</tr>
</tbody>
</table>

To avoid confusion, in this report a degree will be referred to as a ‘course’ and the subject within a degree will be referred to as a ‘unit’.
Executive summary

Higher education students make study choices with a limited view of how their programs are structured. For students, inappropriate course selection bears a financial burden (Krause & Coates, 2008); for universities, it is linked to lower student engagement and retention rates (Thomas, 2012). It is essential that students understand the relevance of their units and course structure to support their engagement in their learning and successful degree completion. Communicating this information is of particular importance in a growing market-driven higher education sector with increasing degree costs. Prospective and commencing students would benefit from a holistic, programmatic approach to curricula to increase their awareness of the importance of graduate skills and capabilities to meet employability requirements and competency standards Building on from the work on curriculum mapping (Oliver, Jones, & Ferns, 2010), graduate capabilities (Oliver & Whelan, 2011), learning outcomes (Lawson, 2015; Owen, Stupans, Ryan, Woulfe, & McKauge, 2011), technology-enhanced learning (Laurillard, Oliver, Wasson, & Hoppe, 2009) and graduate employability (Dawn Bennett), the MyCourseMap tool was developed to present 'one-stop portal' degree information for students and staff showing the entire program with alignment to graduate attributes (GA) and learning outcomes using mobile touch technology.

This fellowship allows academics and students to explore a whole-of-program, interactive map from the point of enrolment. The fellowship represents a sector-wide program of change using a unique curriculum visualisation tool — MyCourseMap. By presenting curriculum in a more student-centred and visible form, academics engage students as active participants in the negotiation of their study choices.

Fellowship objectives and approach

The fellowship aimed to generate a national conversation about the need to provide a more student-centred way to present ‘visible’ curricula to enhance students’ learning and engagement with their program of study. The fellowship offered access to an already developed interactive curriculum visualisation tool – MyCourseMap – built on digital-touch technology for all mobile devices and available for pilot across institutions. The Fellowship objectives were as follows:

1. **To stimulate strategic academic discourse on the importance of presenting ‘visible’ curriculum to students.**

   Workshops with staff and students were conducted in Queensland, Victoria, New South Wales, and Western Australia and facilitated by fellowship champions to generate academic conversation to engage the sector into thinking how they might better communicate curricula information to students to promote awareness of the value and importance of GA and course learning outcomes.

   The workshop activities were also designed to engage the sector to **explore innovative ways** to inspire and motivate students in their learning through engagement with the curriculum.
2. To provide the MyCourseMap tool for institutions as an example of how we can engage students in their learning using a multi-dimensional, interactive curriculum map built on modern technology.

Interactive, hands-on workshops were conducted to showcase the MyCourseMap concept and support the use of the tool through a comprehensive step-by-step user manual. Webinar and other video conferencing were further conducted to support the use of the MyCourseMap tool to further generate academic conversation around curriculum visibility.

**Fellowship output and impact**
The intended fellowship outcomes centre on stimulating academic discourse and systemic change in how institutions present curricula to engage students’ learning and to increase students’ awareness of the value and importance of GA and course (program) learning outcomes to the successful completion of a degree of study. Fellowship outcomes include:

1. The generation of academic conversation through over 35 events, which have engaged more than 250 students and over 800 academics and professional staff.
2. The development of collaboration and partnerships at national and international levels, which will continue the academic conversation beyond the fellowship.
3. The potential for instituting systemic change in how institutions present course information to prospective and commencing students. The fellowship program is timely as the sector is ready for innovative ways of presenting course information.
4. The creation of 48 MyCourseMap sites to date across seven Australian universities and three international universities, with continued expression of interest in MyCourseMap from 29 institutions in Australia and seven other countries. Participating institutions that implement the MyCourseMap have their own multi-dimensional, interactive curriculum for their students and staff.
5. Use of MyCourseMap for raising the profile of institutions through marketing during university open days and for the accreditation process.
6. The creation of a comprehensive step-by-step guide through which the broader sector will be able to adopt the tool.
7. The development of a template for importing data to assist with manual input into the MyCourseMap tool, with manual input being the main concern identified by participants.
8. The preparation of journal articles, in collaboration with fellowship champions, based on identified areas of needs, challenges, and other workshop outcomes.

**Fellowship recommendations for the sector**

- Consider a nationwide approach to unify nomenclature of degree of study and subject within the degree. Currently across Australia, degree of study is referred to as ‘course’ and ‘program’ and subject within a degree is referred to as ‘units’ and ‘course’.
• Education is costly for both students and the sector, hence the importance of increasing the visibility of curriculum to assist with decision-making in choice of study to mitigate numerous course switchings, deferrals, and withdrawals.

• Assurance of learning and graduate skills are paramount for graduate success and employability. Hence it is important to embed implicit and explicit graduate capabilities in curriculum through a collaborative approach working in partnership with students and academics for curriculum transformation.
# Table of contents

Acknowledgements .................................................................................................................. iii

List of acronyms used ........................................................................................................ iv

Preface ................................................................................................................................ iv

Executive summary ............................................................................................................. v

Table of contents ................................................................................................................ viii

Tables and figures .............................................................................................................. ix

Tables .................................................................................................................................. ix

Figures ................................................................................................................................. ix

Chapter 1: Are we there yet in making curriculum transparent to students? ....................... 1

1.1 Students’ learning experience and success: Decision-making in choice of study .......... 1

1.2 Graduate success: The importance of graduate skills for employability ....................... 1

1.3 The MyCourseMap concept: To increase curriculum transparency and visibility ........ 2

Chapter 2: Fellowship program ........................................................................................ 5

2.1 Fellowship goals ............................................................................................................. 5

2.2 Fellowship workshops to generate academic conversation ........................................ 5

2.3 Ethics application and evaluation of impact ................................................................. 1

2.4 Fellowship meeting with senior management team to influence systemic change ........ 1

2.5 Fellowship dissemination and impact at conferences and webinars ............................. 1

Chapter 3: Impact and outputs related to fellowship ....................................................... 4

3.1 ASCILITE Innovation Award .......................................................................................... 4

3.2 Conferences and webinar broadened national and international impact ..................... 4

3.3 Student evaluation ....................................................................................................... 5

3.4 Staff evaluation ............................................................................................................ 6

3.5 The effects of trialling MyCourseMap: What the students and staff say ..................... 7

3.6 Barriers to implementation ......................................................................................... 9

3.7 Champions case studies: Tool for engaging student learning and accreditation ............ 10

Chapter 4: Review and reflection on the fellowship ....................................................... 11

Appendix A: Certification by Vice-Chancellor ................................................................. 13

Appendix B: References ..................................................................................................... 14

Appendix C: External evaluation report ........................................................................... 16

Appendix D: Fellowship poster ....................................................................................... 20

Appendix E: Student Qualtrics Survey .......................................................................... 21

Appendix F: Staff Qualtrics Survey ................................................................................. 25

Appendix G: EOIs generated .......................................................................................... 29
Tables and figures

Tables

Table 1. Comparison of nomenclature for degree and subjects in Australia iv
Table 2. Workshops working in collaboration with fellowship state champions 5
Table 3. Fellowship dissemination and impact 2
Table 4. Expression of interest generated from the fellowship website and ASCILITE webinar showcasing MyCourseMap 5
Table 5. List of MyCourseMap features presented to students 6
Table 6. Primary job role of staff 6
Table 7. Percentage agreement for effectiveness of MyCourseMap in enhancing awareness 8
Table 8. The most valuable thing learned while trialling MyCourseMap 8
Table 9. Best aspects of the MyCourseMap tool 8
Table 10. Barriers to implementation 10

Figures

Figure 1. Comparison of graduate, employer, and course team perceptions of capabilities perceived as more demonstrated or developed 2
Figure 2. One-stop portal for course information with filters for course learning outcomes, graduate attributes, year of study, and discipline areas (Tee et al., 2015) 3
Figure 3. The unit information page displaying details of units including syllabus, unit learning outcomes, graduate attributes, assessment, and testimonial videos (Tee et al., 2015) 3
Figure 4. Are we there yet in making curriculum visible to students? 2
Figure 5. ASCILITE Innovation Award 4
Figure 6. Students’ ‘agree’ responses to MyCourseMap performance compared to their university’s current method 6
Figure 7. Staff’s ‘agree’ responses to MyCourseMaps performance compared to their university’s current method 7
Chapter 1: Are we there yet in making curriculum transparent to students?

1.1 Students’ learning experience and success: Decision-making in choice of study

First-year students face greater difficulty at university during their transition from secondary to tertiary education (Kember, 2001). Significant difficulty is associated with a mismatch of expectations, for example, on timely feedback, the level of autonomy required, and amount of time required for each unit, which poses difficulties with work-life balance (Brinkworth, McCann, Matthews, & Nordström, 2009). Course information provided by universities is often complex and may be difficult for high school students to navigate (James, Baldwin, & McInnis, 1999; Tee, Hattingh, Rodgers, Ferns, Chang, & Fyfe, 2015).

First-year students report difficulty with course selection; a 2004 Australian survey indicated 60 per cent of first-year students felt inadequately prepared to choose a course directly from high school (Krause, Hartley, James, & McInnis, 2005). In later research, this figure dropped; however, 51 per cent of first-year students still reported feeling ill-prepared (James, Krause, & Jennings, 2010). For students, inappropriate course selection bears a financial burden (Krause & Coates, 2008); for universities, it is linked to lower student engagement and retention rates (Thomas, 2012).

1.2 Graduate success: The importance of graduate skills for employability

Graduate skills, also known as ‘soft’ or ‘transferable’ skills, are regarded as skills or personal attributes that, irrespective of discipline, all university graduates should possess (Treleaven & Voola, 2008). Although all Australian universities make claims in policy and curriculum documentation about developing graduate attributes (GA) and course learning outcomes (CLO), the process has been somewhat intangible and ‘invisible’ to students, resulting in students not fully engaging with course expectations (Oliver, 2010; Taylor et al., 2009).

According to Tomlinson’s (2008) research with graduates from the United Kingdom, final-year students are aware of the importance of graduate skills to employability; however, other research conducted with first- and second-year university students indicates employability, thus awareness of and engagement with GA, may not be as important at this stage (Moreau & Leathwood, 2006; Tymon, 2013). Such student perspectives work in opposition to university and teaching agendas, where the need to embed GA begins at the start of the degree. As such, research highlights the importance of creating engagement between all students and GA (Tomlinson, 2008; Treleaven & Voola, 2008). Furthermore, a delineation of graduate perspectives from that of employers and course teaching teams regarding the extent graduate capabilities have been developed and demonstrated are highlighted in Figure 1 (Tee, Ferns, & Hughes, 2018).
Focus group discussions (FGDs) with students and staff indicate that students are generally not aware, or appreciate the importance, of GA and CLO (Tee et al., 2015). It is essential that students understand the relevance of their units and course structure to support their engagement in their learning and successful degree completion. Building on from the work on curriculum mapping (Oliver, Jones, & Ferns, 2010), graduate capabilities (Oliver & Whelan, 2011), learning outcomes (Lawson, 2015; Owen, Stupans, Ryan, Woulfe, & McKauge, 2011), technology-enhanced learning (Laurillard, Oliver, Wasson, & Hoppe, 2009) and graduate employability (Bennett, 2018), the MyCourseMap tool was developed to present ‘one-stop portal’ degree information for students and staff showing the entire program with alignment to GA and CLO using mobile touch technology.

1.3 The MyCourseMap concept: To increase curriculum transparency and visibility

MyCourseMap is an interactive visual curriculum map that supports students in understanding the structure and integration of units in their chosen or prospective degree and assists them in appreciating the relevance of individual units of study to the profession or discipline (Tee et al., 2015). In a single view, MyCourseMap provides staff and students a visual picture of the horizontal and vertical integration across the curriculum (see Figure 2). It allows users to identify the desired graduate capabilities with links to the degree content, and provides a tool that can also be used for curriculum review and renewal by embedding horizontal and vertical integration within a program of study. It embeds peer, graduate, and employer stories (through text, audio, and video) to demonstrate the relevance of the course structure and content (see Figure 3). The following comment comes from a secondary school student upon being presented with the Bachelor of Pharmacy visual degree map as an example of a curriculum map:

*This map will show me the entire degree that I will embark on. With references from videos of students and professionals telling me about the units that I will be taking in the entire degree, I will be more confident and with increased confidence, I will perform better.*

Aligning with the trend that negotiates students as consumers, and one that supports
informed choice, it is becoming increasingly important to understand and facilitate students’ decision-making processes when enrolling in university (Brown, Varley, & Pal, 2008). Overall, the field notes an increased need to enhance student engagement with the curriculum (Brinkworth et al., 2009; Hagel, Brown, Mathew, Wooll, & Tsu, 2014). MyCourseMap offers a way to facilitate accessible and transparent decision-making for students during course selection, as evidenced by student focus group responses to a prototype developed for the Bachelor of Pharmacy. For example, MyCourseMap was regarded as user-friendly, easy to navigate, and particularly useful for first-year students as it provides a holistic picture of the degree (Tee et al., 2015). Treleaven and Voola (2008) found that engaging in ‘constructive alignment’, whereby GA were specifically mapped against unit content and assessment, and then directly outlined to students, led to an increase in subjective assessment of competency for those skills. MyCourseMap provides opportunities to enhance this engagement by creating a transparent and accessible course outline. This enables students to accurately assess whether a course interests them and, through a clear outline of acquired graduate skills, whether the course will improve their desired job prospects.

Figure 2. One-stop portal for course information with filters for course learning outcomes, graduate attributes, year of study, and discipline areas (Tee et al., 2015)

Figure 3. The unit information page displaying details of units including syllabus, unit learning outcomes, graduate attributes, assessment, and testimonial videos (Tee et al., 2015)

The MyCourseMap concept is summarised in Appendix D and as follows:

- One-stop portal for course information – showing immediate relevance of study
- Horizontal and vertical integration of curriculum – holistic view; a whole-of-program approach to show the big picture
- Peer, graduate, and employer stories – to motivate and inspire students’ learning
• Explicitly links learning outcomes to assessments – to engage students in learning, building on students’ behaviour of ‘assessment drives learning’

• Explicitly links content to CLO – assurance of learning complying with competency and accreditation standards

• Explicit view of graduate capabilities – making course content visible and meaningful to student.
Chapter 2: Fellowship program

2.1 Fellowship goals

The fellowship has two primary aims:

1. To stimulate strategic academic discourse on the importance of presenting ‘visible’ curriculum to students.

2. To provide the MyCourseMap tool for institutions as an example of how we can engage students in their learning using a multi-dimensional, interactive curriculum map built on modern technology.

2.2 Fellowship workshops to generate academic conversation

Workshop activities working in collaboration with fellowship champions from different states (see Table 2) aimed to generate a conversation to engage the sector into thinking how they might better communicate curricula information to students to promote awareness of the value and importance of GA and CLO. Workshops were presented in three parts: (a) showcase, (b) evaluation, and (c) academic conversation through FGD. Workshop activities showcased the MyCourseMap concept and supported the use of the tool through interactive workshops. Participants were provided with an opportunity to trial the MyCourseMap tool in an additional workshop supported with the provision of a comprehensive step-by-step user manual and/or special MyCourseMap trial workshop or online meetings using Skype, ZOOM, and other online platforms.

Table 2. Workshops working in collaboration with fellowship state champions

<table>
<thead>
<tr>
<th>Date</th>
<th>Workshops</th>
<th>Workshop facilitator – state champion</th>
<th>Workshop expressions of interest (EOI)</th>
<th>Number attended</th>
<th>EOI for piloting</th>
</tr>
</thead>
</table>
| 13 Apr 2017 | Staff workshop, QUT, Brisbane  
1. Showcase & FGD  
2. MCM trial | Manuel Serrano Santos, QUT | 26 | 11 | 7 |
| 19 Apr 2017 | Staff workshop, RMIT, Melbourne  
3. Showcase & FGD  
4. MCM trial | William Tee, VU | 33 | 15 | 11 |
| 21 Apr 2017 | Student evaluation workshops  
5. First year Pharmacy, RMIT  
6. Fourth year Pharmacy, RMIT  
7. Year 1–3 Biomedical Science, RMIT | Ieva Stupans, RMIT  
Cindy O’Malley, RMIT | N/A | Approx. 250 | N/A |
| 23 Jun 2017 | Staff workshop, UOW  
Showcase, MCM trial, & FGD | Simon Bedford, UOW | 7 | 5 | 3 |
| 11 Oct 2017 | Staff workshop, Curtin (Nursing)  
Evaluation workshop & FGD | Helen Godwin, Curtin | > 20 | 9 | N/A |
### 2.3 Ethics application and evaluation of impact

The National Teaching Fellowship and associated materials were approved by the Curtin University Human Research Ethics Committee (HREC) on the 16 November 2016 (HREC number HRE2016-458). The surveys (see Appendix E and F) were used to generate participants’ perceptions of the MyCourseMap tool showcased during the workshop. Staff and student surveys were administered via Qualtrics and available for completion during the workshop on provided iPads or as a link sent via email. The focus group questions required participants to elaborate on concepts asked in the survey, such as a brief evaluation of MyCourseMap, the best aspect of the tool, barriers for use, how it may be relevant to teaching/learning, and further suggestions for improvement.

### 2.4 Fellowship meeting with senior management team to influence systemic change

With the goal of instituting systemic change in how institutions present course information to prospective and commencing students, the fellowship activities included discourse with key institution management teams at Curtin University, ECU, Murdoch University, RMIT, Monash University, and UOW to explore innovative ways to inspire and motivate students in their learning through engagement with the curriculum, and for assurance of learning. The management team participants included but were not limited to the DVC education, dean and directors of learning and teaching, IT manager, manager of academic governance, director of learning design, and academic registrar. The external evaluator for the fellowship, Dr Allan Goody, was present in meetings with Curtin, ECU, and the RMIT team and provided an evaluation of the process.

### 2.5 Fellowship dissemination and impact at conferences and webinars

Dissemination of the fellowship program was through the fellowship website ([https://www.mycoursemap.net.au/](https://www.mycoursemap.net.au/)), conferences, webinar, video conferencing, newsletters, and blog postings, as depicted in Table 3. Another planned activity to disseminate an innovative way to present course information and institute systemic change across the education sector using digital technology was the presentation and submission of the MyCourseMap tool for the ASCILITE Innovation Award for 2016. Further dissemination was through invitation to submit blog posts to the ASCILITE and ALTF ([http://www.altf.org](http://www.altf.org)) websites. An example is presented in Figure 4.
‘Are we doing enough to increase visibility of graduate capabilities, program learning outcomes and curriculum intent to students? Why students are not provided the whole of curriculum details at the point of enrolment? Current students are able to access course information online, but the information frequently lacks relevant detail and is presented such that there is minimal student perception of relevance. Students rarely see a course-wide view of their studies, and yet their courses are developed with just such a holistic view. And yet, clearly defined course learning outcomes and graduate attributes are essential for producing graduates with the skills necessary to be proficient employees and contributors to society.’

**Figure 4. Are we there yet in making curriculum visible to students?**

**Table 3. Fellowship dissemination and impact**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event title</th>
<th>Number attended/EOI for piloting</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 July 2016</td>
<td>HERDSA 2016 in Perth Presenting fellowship using digital platform</td>
<td>Approx. 50</td>
</tr>
<tr>
<td>Oct 2016</td>
<td>ASCILITE Innovation Award Commended for outstanding innovation</td>
<td>&gt; 200</td>
</tr>
<tr>
<td>Nov 2016</td>
<td>HERDSA Rekindle, Curtin University, Perth</td>
<td>Approx. 20</td>
</tr>
<tr>
<td>Nov 2016</td>
<td>WAND Sharing Day Poster presentation, Murdoch University, Perth</td>
<td>Approx. 50</td>
</tr>
<tr>
<td>2017</td>
<td>Featured in the National Teaching Fellowships winners article in HERDSA News, volume 39(2), Autumn 2017.</td>
<td>N/A</td>
</tr>
<tr>
<td>Dec 2016</td>
<td>Australian Pharmaceutical Science Associate Conference, Brisbane</td>
<td>Approx. 30</td>
</tr>
<tr>
<td>Feb 2017</td>
<td>Teaching and Learning Forum, Curtin University</td>
<td>Approx. 30/9 EOI for pilot</td>
</tr>
<tr>
<td>Apr 2017</td>
<td>ASCILITE News blog</td>
<td>N/A</td>
</tr>
<tr>
<td>June 2017</td>
<td>Featured fellow in the ATFL website</td>
<td>N/A</td>
</tr>
<tr>
<td>28 Jun 2017</td>
<td>HERDSA Sydney Conference Co-presented with champion Simon Bedford</td>
<td>Approx. 30/15 EOI for pilot</td>
</tr>
<tr>
<td>7 Jul 2017</td>
<td>Monash Pharmacy Education Symposium, Italy</td>
<td>&gt; 10</td>
</tr>
<tr>
<td>30 Aug 2017</td>
<td>ASCILITE Assessment Transforming Webinar Co-presented with champion Simon Bedford</td>
<td>38 attended webinar, 96 EOs 108 YouTube hits 858 hits on session recording</td>
</tr>
<tr>
<td>28 Sep 2017</td>
<td>HERDSA Rekindle, ECU, Perth Co-presented with champion Simon Bedford</td>
<td>Approx. 20</td>
</tr>
<tr>
<td>30 Nov 2017</td>
<td>TEQSA forum – panel presentation: ‘How to empower academics to live and breathe quality’ The panel consisted of Elizabeth Toy and the following fellows – Angela Carbone, Nicolette Lee and Romy Lawson, Kevin Ashford-Rowe</td>
<td>Approx. 50</td>
</tr>
<tr>
<td>30 Nov 2017</td>
<td>Informal meeting with student leaders at TEQSA</td>
<td>Approx. 10</td>
</tr>
<tr>
<td>8 Dec 2017</td>
<td>‘APSA-ASCEPT Joint Scientific Meeting’ Co-presented with champions Manuel Santos and Ieva Stupans</td>
<td>Approx. 50</td>
</tr>
</tbody>
</table>
Dissemination of the fellowship program at 11 conference events engaged over 700 participants. Fellowship champions who have developed their MyCourseMap interactive curriculum continue the academic conversation of curriculum transparency in their institutions. Champions broaden fellowship impact by co-presentation at conferences, showcasing the usefulness of the MyCourseMap as a curriculum visualisation tool to convey explicit alignment of content to CLO, GA, and accreditation standards. It is clear from the themes of the HERDSA (Curriculum Transformation) and TEQSA (Students, Quality, Success) conferences that the sector is ready to explore ways to enhance curriculum transformation and enhance curriculum transparency for students. In these conferences students were invited as leaders in reshaping curriculum. This presents an invaluable opportunity to add informal meetings with student leaders as part of fellowship activity. One student leader commented:

*Some students have changed courses more than four times, and this is costly.*
Chapter 3: Impact and outputs related to fellowship

3.1 ASCILITE Innovation Award

The ASCILITE Innovation Award aims to recognise innovative projects and initiatives ‘undertaken by an individual or team of people in support of the exemplary and research informed use of technologies for learning and teaching in tertiary education’ – ‘something original that “breaks into” teaching and learning in the tertiary sector’ (http://ascilite.org/get-involved/awards/). In 2016, the MyCourseMap tool was commended for the ASCILITE Innovation Award (see Figure 5).

![Figure 5. ASCILITE Innovation Award](image)

3.2 Conferences and webinar broadened national and international impact

In collaboration with ASCILITE’s Transforming Assessment, a webinar showcasing the fellowship initiatives of enhancing curriculum transparency through the use of an interactive multi-dimensional map, the MyCourseMap tool, was hosted on 30 August 2017 involving 38 participants. This webinar is available in the Transforming Assessment session recording page (http://transformingassessment.com/events_30_august_2017.php) as well as YouTube (https://www.youtube.com/watch?v=5NLP3aKi8Cc&feature=youtu.be).

To date there are 108 hits on the YouTube link and 858 hits on the session recording page. The fellowship website and the ASCILITE session has had significant national and international impact, engaging participants from Australia, Canada, Japan, New Zealand, Saudi Arabia, Singapore, the United States of America, and the United Kingdom (see Table 4 and Appendix G).
Most participants expressed that their institute’s current method lacks transparency for students; that is, students do not know what their course looks like over the degree, nor understand the importance of graduate skills embedded within units for their future success. Student leaders commented on the challenge associated with choosing the right course of study and financial burden, with some students course switching over four courses. Common methods of providing information to students included online course books, websites, and open days; however, some participants felt that students do not engage with these materials. Participants expressed a clear desire to find a system that would allow a review of the whole course in one view, make curricula more accessible, increase students’ awareness of the importance of course outlines, improve student engagement, and be user-friendly.

### 3.3 Student evaluation

When students access course material at the point of enrolment and during their course of study, the way that course material is displayed may affect their engagement with the curricular information and their learning. Following a showcase of the interactive curriculum map created using the MyCourseMap tool, students were provided with an opportunity to interrogate their respective curriculum map and provide feedback through the Qualtrics survey (see Appendix E). A list of features (see Table 5) of the MyCourseMap that aim to improve the visibility of the curriculum was given to participants. Students were then required to compare the feature in their current institution to MyCourseMap.

Students felt that all of the features to enhance the visibility of the curriculum in MyCourseMap outperformed their current system (see Figure 6). The top three features perceived by students as the most important to enhancing their engagement were (1) the entire course map in one screen, (2) easy access to information about the course structure and content, and (3) interactive features showing the relevance of the course.

---

**Table 4. Expression of interest generated from the fellowship website and ASCILITE webinar showcasing MyCourseMap**

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of institutions</th>
<th>Number of EOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>29</td>
<td>37</td>
</tr>
<tr>
<td>Canada</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>United States of America</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>New Zealand</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Singapore</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

---
Table 5. List of MyCourseMap features presented to students

<table>
<thead>
<tr>
<th>Features to enhance visibility of curriculum to students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ease of access: Information about course structure and content is easy to access</td>
</tr>
<tr>
<td>2. Whole course in one view: The entire course can be seen in a single screen/page/view when accessing course information</td>
</tr>
<tr>
<td>3. Graduate attributes: Graduate attributes are visible in the course material</td>
</tr>
<tr>
<td>4. Course learning outcomes: Course learning outcomes are visible in the course material</td>
</tr>
<tr>
<td>5. Relevance of units to course as a whole: The relevance of a particular unit to overall course structure is clear in course material</td>
</tr>
<tr>
<td>6. Relevance to career: Course material at my institution shows the relevance of units to career choices and progression</td>
</tr>
<tr>
<td>7. Testimonials: Testimonials from students and industry partners talking about units of study are included in course material</td>
</tr>
</tbody>
</table>

Figure 6. Students’ ‘agree’ responses to MyCourseMap performance compared to their university’s current method

3.4 Staff evaluation

Most staff who participated in workshops were learning and teaching centre staff, followed by unit coordinators, and teaching support staff (see Table 6). After the workshop, participants were required to complete a workshop evaluation survey (see Appendix F: Staff Qualtrics Survey).

Table 6. Primary job role of staff

<table>
<thead>
<tr>
<th>Primary job role</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning and teaching centre staff</td>
<td>18</td>
</tr>
<tr>
<td>Unit coordinator</td>
<td>17</td>
</tr>
<tr>
<td>Other</td>
<td>15</td>
</tr>
<tr>
<td>Teaching team member</td>
<td>14</td>
</tr>
<tr>
<td>Administrative support</td>
<td>12</td>
</tr>
<tr>
<td>Course coordinator</td>
<td>11</td>
</tr>
</tbody>
</table>
Participants were provided a list of features central to MyCourseMap (see Table 5) and prompted to consider if they were available at their institution. Staff responses closely reflect students’ evaluation (see Figure 7), which demonstrates that staff also perceived that MyCourseMap outperformed their current institution’s method in the provision of all features.

Like students, staff valued the ability to have the entire course map in one screen the most, followed by that information about course structure and content is easy to access. The third most important feature to staff was that the relevance of a particular module/unit to overall program/course structure is clear.

![Improving student engagement with the curriculum – staff opinions](image)

**Figure 7. Staff’s ‘agree’ responses to MyCourseMaps performance compared to their university’s current method**

### 3.5 The effects of trialling MyCourseMap: What the students and staff say

Participants were asked five questions about their experience trialling MyCourseMap to ascertain if it enhanced students’ awareness of course curricula. The responses from both students and staff are presented in Table 7.
Table 7. Percentage agreement for effectiveness of MyCourseMap in enhancing awareness

<table>
<thead>
<tr>
<th>Survey questions</th>
<th>Student</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhance awareness of graduate attributes</td>
<td>100</td>
<td>39</td>
</tr>
<tr>
<td>Enhance awareness of course learning outcomes</td>
<td>100</td>
<td>36</td>
</tr>
<tr>
<td>Enhance understanding of how graduate attributes relate to employability</td>
<td>85.7</td>
<td>28</td>
</tr>
<tr>
<td>Enhance understanding of the importance of course learning outcomes for graduate success</td>
<td>94.7</td>
<td>52.2</td>
</tr>
<tr>
<td>Effectiveness of workshop in enhancing understanding of how different aspects of the curriculum affected their learning/engagement with their course</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Participants were also prompted to respond to the following open-ended questions in the survey and FGD: ‘What was the most valuable thing you learned while trialling MyCourseMap and why?’ (see Table 8) and what are the ‘best aspects of the MyCourseMap tool’ (see Table 9).

Table 8. The most valuable thing learned while trialling MyCourseMap

**What the students say:**
- How my course is structured and the insight into what I’m in for
- That all the units are integrated
- The link between different years subjects
- How courses link together and about graduate attributes and learning outcomes I didn’t know previously

**What the staff say:**
- That there is a possibility of having the curriculum made more engaging for both staff and students – we don’t have to be stuck with the tools and spreadsheets we have now – there are other opportunities!
- How easy it is to set up and implement
- This is an extremely useful tool for students and academics alike
- I learned that various institutions face similar problems in planning and implementing their courses/programs. But, the most important thing that I learned was there is a tool to minimise those problems

Table 9. Best aspects of the MyCourseMap tool

**What the students say:**
- Easy to access all of the relevant information and how it is presented in an easy to view format. As I didn’t know a lot of this information existed
- Much more simple to find relevant information than other sites
- The ability to view the whole course map in one screen, and to filter units based on area of pharmacy or year
- You get to see how each unit links to other units and how our knowledge is being built up
• That it’s interactive and easy to access

<table>
<thead>
<tr>
<th>What the staff say:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• It has the potential to provide students with a one-stop view of their intended learning journey within their program. It provides a possible roadmap</td>
</tr>
<tr>
<td>• Clarity of structure and relevance of content to prospective and first year students to increase retention and improve performance</td>
</tr>
<tr>
<td>• The ability for both students and staff to see how each unit relates to the overall program</td>
</tr>
<tr>
<td>• Interactive nature of the tool allows for students and staff to understand where each unit sits in relation to the overall course</td>
</tr>
<tr>
<td>• The tool fosters dialogue between course/unit coordinators and allows them to visually see where each course/unit is located relative to the whole program</td>
</tr>
<tr>
<td>• Clear, easy to use, provides whole-of-course perspective on CLOs, grad attributes, assessment, employability skills</td>
</tr>
<tr>
<td>• Holistic view, interactive, ability to filter by LOs, GAs, etc.</td>
</tr>
<tr>
<td>• Clean and user-friendly visuals</td>
</tr>
<tr>
<td>• As the tool is built on WordPress, there is a degree of familiarity, therefore would make the transition/learning process easier</td>
</tr>
<tr>
<td>• Innovative one-stop shop</td>
</tr>
</tbody>
</table>

The positive comments regarding MyCourseMap may assist to explain why 38.46 per cent of staff said they would ‘definitely’ use MyCourseMap in their own course and 23.03 per cent said they would probably use the tool. Only 30.77 per cent were unsure, 7.69 per cent said probably not, and zero responded ‘definitely not’.

3.6 Barriers to implementation

Staff discussed three main barriers to the implementation of MyCourseMap at their universities: acceptability, cost, and replication. The various views are highlighted in Table 10. Overall, staff hold concerns that institution-wide acceptability, cost, in terms of money and time, and the potential for replication will be obstacles to the implementation of MyCourseMap.
Table 10. Barriers to implementation

- The school/college/university would need to want to use this
- The course coordinator would need to agree to implement MCM
- Existing policy and procedures
- Time cost demand may be an issue, together with entrenched ‘always-done-it-this-way’ attitudes
- Cost of implementation
- Manual input [of data] for academics that are already busy
- Time and resources to input detail manually
- I believe a possible problem will be the inability of the tool to connect to [university] internal systems or the learning management system in that matter
- Duplication of information with [universities] website
- Keeping the information up to date
- Uncoordinated or missing data
- When the system can ‘pull information’ that would be more purposeful

3.7 Champions case studies: Tool for engaging student learning and accreditation

Fellowship champions who have trialled the MyCourseMap provided feedback on the usefulness of the tool. As pilot users, champions described MyCourseMap as ‘easy to set up’, ‘very inductive, even without any prior experience using it’, and ‘a simple tool to add information’. Discussions of piloting experiences quickly morphed into outlining the benefits of MyCourseMap, and most feedback was similar to the staff evaluation in Table 8 and Table 9. For example, the MyCourseMap capability to highlight course structure to students was well received:

MyCourseMap is a very clean and simple way to demonstrate to students their entire program structure and make explicit that courses build upon others and visualise that the knowledge and skills from earlier courses will be used as a foundation for later studies.

However, concerns were raised that this simple visualisation rested upon the input of data, and barriers to implementation perceived by champions is similar to that presented in the staff evaluation in Table 9. The main concern is the ‘lack of integration to the data warehouse or CMS – curriculum management systems’. Another common concern is ‘culture change across university and difficulties securing consistency in its use’.

These barriers may be overcome by the eventual integration of the MyCourseMap with learning management systems – ‘I think when the MyCourseMap is able to integrate some teachers would be encouraged to pilot it’ and the fact that ‘the scalability [of MyCourseMap] is there’ – which increases the likelihood of consistent and widespread use. Finally, the required culture shift for students may be promoted by the presence of a ‘much-needed initiative for a curriculum visibility and student engagement’ such as MyCourseMap.
Chapter 4: Review and reflection on the fellowship

This fellowship has been a real privilege, providing an invaluable platform for academic conversation, for which I sincerely thank the Office for Learning and Teaching (OLT), and I am inspired to continue this work beyond the lifespan of this fellowship. It is pleasing and inspiring to see the tremendous synergy amongst the OLT teaching fellows in our effort to generate academic conversation around curriculum transformation to enhance the visibility and importance of graduate skills and CLO for graduate success and employability.

The fellowship provided many positive outcomes and identified areas that may need improvement to increase the transparency of curriculum and importance of GA. The feedback from fellowship champions, institution senior management teams, and workshop participants suggests that the fellowship is a very timely piece of work that provided operational strategies for institutions to use in practice.

Although the main focus of the fellowship is to stimulate academic conversation on how students are engaging with curricula and to explore innovative ways of presenting curricula to increase curriculum transparency, a significant extent of the conversation is around the facilitation for accreditation process. Participants commented on the challenges in the documentation process for accreditation and complying with TEQSA assurance of learning requirements. One champion employed the MyCourseMap tool in the accreditation process and commented:

*Another advantage of MyCourseMap is that it visualises the graduate attributes and PLOs which is great for accreditation purposes and is also a good way to begin the conversation with students about what they are really learning at university.*

Others commented that it is a ‘must have tool and we need it now’ as a powerful visualisation and crosschecking tool to ensure correct alignment with CLO and GA. In a couple of cases, the curriculum underwent review following the use of the MyCourseMap tool to correct the misalignment and discrepancies in institution curriculum mapping systems. In another case, an elective unit was later assigned as a capstone unit following clear visualisation that the elective unit had addressed all CLO and required accreditation standards.

The MyCourseMap tool was used as an example of how institutions can present transparent curriculum to students and staff; it was not the focus of the fellowship to have institutions adopting the tool. However, it was clear that there was an appetite for the uptake of the tool, but the main barrier and concern is the requirement for manual input of data and the need for integration with institution databases. The landscape of education has changed significantly with digital and other innovative technology. Indeed, most institutions are currently reviewing their learning management and curriculum management systems in an effort to address and comply with TEQSA requirements for assurance of learning. Perhaps in the future institutions may be ready for such integration to allow similar visualisation tools to increase the transparency of curriculum for students at the point of enrolment.

What is clear in my mind is the importance and need to continue the fellowship academic conversation to institute systemic change in the way the sector is presenting course
information to enhance students’ engagement. It is particularly important to present students with the entire course of study at the point of enrolment so that they can make informed decisions on a course of study to reduce their and the sector’s financial burden. Prospective and commencing students would benefit from a holistic programmatic approach to curricula to increase their awareness of the importance of graduate skills and capabilities to meet employability requirements and competency standards. The students’ voice is a powerful tool to influence and enable change at institutional and national levels to ensure student and graduate success.

*Once you can see the big picture you can put the puzzle together and understand how each unit is linked to the next; in that way, you have the confidence and will perform better.*
Appendix A: Certification by Vice-Chancellor

Certification by Deputy Vice-Chancellor (or equivalent)
I certify that all parts of the final report for this OLT fellowship provide an accurate representation of the implementation, impact and findings of the project, and that the report is of publishable quality.

Name: Jill Downie, Deputy Vice-Chancellor (Academic), Curtin University

Date: 30 May 2018
Appendix B: References


Appendix : External evaluation report

Independent evaluation report for the OLT-funded National Teaching Fellowship Making curriculum visible: Engaging students in learning outcomes and career relevance through a multi-dimensional, interactive map

Fellow: Associate Professor Lisa Tee
Evaluator: Dr Allan Goody
Date: 10 May 2018

The fellowship
The fellowship espoused the need to communicate transparent and ‘visible’ curricula to students to enhance first-year transition, retention, and successful course completion. In broad terms, the fellowship aimed to generate a national conversation around how to better communicate curricula information to students to promote awareness of the value and importance of graduate attributes and course learning outcomes. This would be done through the implementation and support of MyCourseMap, a multi-dimensional, interactive curriculum map using digital and touch technology that increases transparency and relevance of curricula for students.

Approach
A participatory evaluation approach was taken in the evaluation of the fellowship. As the evaluator, I was involved from the beginning of the fellowship and acted as a critical friend providing advice and support and input to modifications to the approach to engagement strategies. I also participated in a variety of fellowship activities as an observer and sometimes recorder of outcomes during the events. My knowledge of the MyCourseMap began prior to the fellowship, which helped with providing input and support.

The purpose of the evaluation was to determine the extent to which the fellowship has achieved its intended aims, the effectiveness of the fellowship processes, and the potential for sustained and ongoing discourse and adoption of the MyCourseMap tool post-fellowship.

The fellowship report describes the impact of the fellowship activities through evaluation processes that occurred during fellowship events. This evaluation report describes impact observed and measured through additional and independent evaluation processes including participatory observation at events, discussions with Associate Professor Tee, and via a short survey conducted with a small sample of participants taking part in fellowship activities.

The fellowship events in which I participated (in addition to individual meetings with Associate Professor Tee) were

- SKYPE meeting with senior RMIT team
- Curtin University School of Nursing staff
- Curtin University Pharmacy students
- Edith Cowan University senior management team
- Curtin University Curtin Learning Institute senior management team
Outcomes of the evaluation

While observation of conversations at the fellowship events does not lead to conclusive conclusions about impact from those conversations, there were a number of common discussion threads and observations that suggest actual impact and potential for impact and the potential for ongoing dialogue about transparency of the curriculum. The conclusions I drew from my participation and observation are supported by feedback gathered through the short survey. I have used quotes from the respondents to illustrate my observations in a more authentic voice.

The first point of note is the commonly agreed need for greater transparency and how the MyCourseMap can assist in that process. This was evident from the reactions of both the staff who participated in activities and students I observed participating in a forum at Curtin University. ‘Visualisation’ appeared to be a common thread of conversation and was seen as a major positive of the MyCourseMap:

\[
\text{It [the App] highlighted the issues of transparency of curriculum for the student, this hopefully offers ownership of process and outcome (learning and graduate attributes) to the student.} \\
\text{The MyCourseMap provided an excellent example of what can be done to join the dots in curriculum in a very user-friendly way. It was adopted as a trial in some of our programs, and the feedback was very positive.}
\]

An important (and quite surprising) point arose in a student forum. Despite the best intentions of the institutions and individual staff members to make graduate attributes explicit and known to students, it appears that students are not fully aware of course learning outcomes, unit learning outcomes, and graduate attributes and how they are taught and the value of achieving these attributes. But it has put a focus on the students:

\[
\text{It has put the student at the centre of this for me but with the resistance [from management], progress may be slow.}
\]

A second observation was a sense of frustration on the part of many participants at not being in a position to make change because of their position in the department, school, or faculty, even though they see the value. This is despite the very strong enthusiasm on display from the staff. There was also a sense of frustration that their own time is committed so heavily to teaching (and research) that fundamental aspects of curriculum (such as those addressed in this fellowship) that they would like to engage in are not deemed worthy of the attention of senior management, the reallocation of time, nor funding set aside to do this. This observation is supported by several of the survey responses, including

\[
\text{I think the App is excellent. The university’s unwillingness to fund it makes it difficult for us to use it.} \\
\text{It’s not so much the lack of a tool but systemic resistance against transparency, sometimes with good reason, but often just based on an ivory-tower tradition of teaching and learning.}
\]
Whilst it was great to hear about MyCourseMap, having these types of systems implemented requires a wide range of institutional supports and resources. Teaching needs to ‘matter’ beyond how effectively we do things currently to a wide range of stakeholders for the financial resource to be dedicated.

Given that academics in their unit coordination and course coordination roles are already burdened by workload and expectations from the University, it is difficult to predict discussion and thus take up for the curriculum. There is often a willingness to these ideas however the realities of the day to day work and expectation of performance often result that activities such as this is not possible. We don’t have much left in reserve. Perhaps the University would be willing to employ someone at each School level to do this. This employment should not be from recurrent funds – it should be separately funded.

Perhaps the most significant observation came from the meetings with senior management groups. At the beginning, there was strong consensus that the MyCourseMap (or a similar tool) was necessary to provide transparency in the curriculum and to allow students to better comprehend their course of study. However, either through the piloting of MyCourseMap or as a result of discussion around the group, discrepancies and deficiencies in the system were very quickly identified. In one case, this led to one institution that was piloting MyCourseMap to withdraw from the pilot.

While the following quote did not come from a senior management team, it illustrates how those with less influence on systemic change see the position of senior management:

_unfortunately, changing the university’s systems is such a large undertaking, so expensive, that we reached a point where senior decision makers were starting to get nervous about being seen to commit to systemic changes._

In a similar way, the visualisation provided by MyCourseMap allowed participants to see their course and make judgements about particular units, teaching and learning strategies, and course structures. The visualisation also illustrated the intensity of the graduate attributes.

While the observations noted above suggest that the uptake of MyCourseMap might not be a success, this was not the aim of the fellowship. It is clear that the conversation started through the fellowship activities has shone a spotlight on the fellowship to make the curriculum visible:

_My primary responsibility is in coalface delivery of large early undergraduate programmes rather than higher level responsibility for overall program oversight. Still my involvement in the 2 Fellowship activities I attended helped me think through some of the issues pertaining to curricular communication to students. One immediate outcome was that following my participation in the Workshop I was inspired to develop online modules that explain the structure of my units more effectively to students._

_Our institution is already working on a technological solution to these issues, as we recognise this is a very important part of engaging our students with their studies and choices. It was certainly very helpful to see how far this project had come in resolving these issues, their approach and usability of their product._
The success of the fellowship is well summed up by this comment from a participant:

*The Fellowship activities in which I participated helped to crystalize my thoughts concerning the challenges experienced by students when negotiating the tertiary curriculum. It has helped me give greater weight to the importance of clearly integrating course outcomes with the actual items of assessment and curriculum content and/or structure.*
Appendix D: Fellowship poster

MAKING CURRICULUM VISIBLE: ENGAGING STUDENTS IN LEARNING OUTCOMES AND CAREER RELEVANCE THROUGH A MULTI-DIMENSIONAL, INTERACTIVE MAP - MyCourseMap
Lisa B.G. Tee 2016 Australian National Teaching Fellow, School of Pharmacy, Faculty of Health Sciences, Curtin University, Perth, Western Australia.

Issues to be Addressed
Higher education students make study choices with a limited view of how their programs are structured. Students rarely see a program-wide view of their studies, and yet their programs are developed with just such a holistic view. The fellowship identifies the need to communicate transparent and “visible” curricula to students to enhance first year transition, retention and successful course completion. This Fellowship encourages academics and students to employ a whole-of-program, interactive map from the point of enrolment. The Fellowship represents a sector-wide program of change using a unique curriculum visualisation tool – MyCourseMap.

Fellowship Objectives and Proposed Outputs
The proposed Fellowship aims to generate a national conversation around how to better communicate and engage students in their program of study through the implementation and support of MyCourseMap, a multi-dimensional interactive curriculum map using digital and touch technology that increases transparency and relevance of curricula for students. The Fellowship offers access to an already developed interactive curriculum visualisation tool – MyCourseMap – built on digital-touch technology for all mobile devices and is available for pilot across institutions.

When you start university... Where do you start?

MyCourseMap

• One-stop portal for course information - immediate relevance
• Horizontal and vertical integration of curriculum - holistic view
• Peer, graduate and employer stories - motivates and inspires
• Links learning outcomes to assessments - assessment drives learning
• Links content to program outcomes - competency & accreditation
• Graduate capabilities - graduate success and employability
• One tool many uses - marketing, curriculum review and renewal, accreditation

What students and staff say about MyCourseMap Tool

Students

Three main themes
1. User-friendly and easy to navigate
2. Providing a holistic picture of a degree
3. Useful for planning.

"...so that was all in one place, it would help me get organised so that I can plan ahead and stuff like that. So yeah in the long run it would help me in my learning experience."  
"When I enrolled I wasn’t sure actually what I was going to be going into. And I had no idea about any of the units that I would be having to enrol in but having this App it shows you all the units."  
"It's quite visually simple, easy to work your way around it."  
"I think it is great because when you are studying and if you need to look at a course outline, or if you need to look at the assessments it's quick, you can just go to the one spot instead of looking through Blackboard."

Lisa Tee's Contact: L.Tee@curtin.edu.au

Staff

Four main themes
1. Incorporation of modern technology
2. User-friendly and easy to navigate
3. Providing a holistic picture of a degree
4. Multiple applications and uses.

"...the fact that its an App itself is only really appealing to this kind of generation. It's a lot better than a piece of paper or a brochure"
"It was great to be able to see an overview, because whenever, as a designer, I would take a while to assemble that information..."
"...I think it is a great idea. I can't really emphasise how great it is for curriculum builders, unit coordinators, head of schools, within faculty. Even for the admin staff at University. Not only University, its even for any institution to be honest. Educational institutions, TAFE that could be implemented quite easily..."
"...this is so much more elegant and user friendly and versatile than either the Course Finder or the Handbook..."
Appendix E: Student Qualtrics Survey

National Teaching Fellowship: Student Evaluation: Qualtrics Survey Questions

Please provide your perceptions of the MyCourseMap tool you recently trialled for the National Teaching Fellowship: Making curriculum visible: Engaging students in learning outcomes and career relevance through a multi-dimensional, interactive map.

The fellowship aims to:

- stimulate strategic academic discourse on the importance of presenting ‘visible’ curriculum to students, engaging the sector into thinking how they might better communicate curricular information to students to promote awareness of the value and importance of graduate attributes and course (program) earning outcomes
- provide the MyCourseMap tool for institutions as an example of how we can engage students in their learning using a multi-dimensional, interactive curriculum map built on modern technology.

In the survey questions below, a complete program or degree of study is referred to as a COURSE. The modules of study within the entire program are referred to as UNITS.

Q1. Which course are you studying?

Q2. What year of your course are you in?
   - Year 1 (1)
   - Year 2 (2)
   - Year 3 (3)
   - Year 4 (4)
   - Postgraduate (5)

Q3. IMPROVING STUDENT ENGAGEMENT WITH THE CURRICULUM:
When students access course material at the point of enrolment and during their course of study, the way that course material is displayed may affect their engagement with the curricular information and their learning.

Features of MyCourseMap which aim to improve the visibility of the curriculum are listed in the left hand column. Please provide your perceptions in relation to these features below:
<table>
<thead>
<tr>
<th>Feature</th>
<th>Agree (1)</th>
<th>Unsure (2)</th>
<th>Disagree (3)</th>
<th>Agree (1)</th>
<th>Unsure (2)</th>
<th>Disagree (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EASE OF ACCESS: Information about course structure and content is easy to access (1)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>WHOLE COURSE IN ONE VIEW: The entire course can be seen in a single screen/page/view when accessing course information (2)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>GRADUATE ATTRIBUTES: Graduate attributes are visible in the course material (3)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>COURSE LEARNING OUTCOMES: Course learning outcomes are visible in the course material (4)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>RELEVANCE OF UNITS TO COURSE AS A WHOLE: The relevance of a particular unit to overall course structure is clear in course material (5)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>RELEVANCE TO CAREER: Course material at my institution shows the relevance of units to career choices and progression (6)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>TESTIMONIALS: Testimonials from students and industry partners talking about units of study are included in course material (7)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>
Q4. FEATURES OF MyCourseMap

Rank these features of MyCourseMap in terms of how important they are in enhancing engagement with the curriculum, from 1 (most important) to 10 (least important): You may rank items by dragging them up or down.

_____ Entire course map in one screen (1)
_____ Home page to provide information of school or teaching area (2)
_____ Innovative, interactive curriculum visualisation tool using digital touch technology (3)
_____ Graduate attributes visibly linked to units in the curriculum (4)
_____ Course learning outcomes visibly linked to units in the curriculum (5)
_____ Student testimonial videos to explain relevance of units (6)
_____ Industry testimonial videos link units to career relevance (7)
_____ Interactive unit buttons link to detailed information about units (8)
_____ Information about course structure and content is easy to access (9)
_____ The relevance of a particular module/unit to overall program/course structure is clear (10)

Q5. Trialling MyCourseMap deepened my understanding of how different aspects of the curriculum affect my learning and engagement with my course/program of study:

☑ Yes (1)
☐ No (2)
☐ Unsure (3)

PROMOTING AWARENESS OF GRADUATE ATTRIBUTES AND COURSE LEARNING OUTCOMES

Please share your perceptions of how MyCourseMap helps to promote awareness of the value and importance of graduate attributes and course (program) learning outcomes.

Q6. Trialling MyCourseMap enhanced my awareness of graduate attributes:

☑ Yes (1)
☐ No (2)
☐ Unsure (3)

Q7. Trialling MyCourseMap enhanced my understanding of how graduate attributes relate to employability:

☑ Yes (1)
☐ No (2)
☐ Unsure (3)

Q8. Trialling MyCourseMap enhanced my awareness of course learning outcomes:

☑ Yes (1)
☐ No (2)
☐ Unsure (3)

Q9. Trialling MyCourseMap deepened my understanding of how different aspects of the curriculum affect my learning and engagement with my course/program of study:

☑ Yes (1)
☐ No (2)
☐ Unsure (3)
Q10. What are the best aspects of the MyCourseMap tool?

Q11. What other features could be added to enhance the MyCourseMap tool?

Q12. I received clear instruction on the features of MyCourseMap before the trial:

☐ Yes (1)
☐ No (2)
☐ Unsure (3)

Q13. In what ways could instructions on how to use MyCourseMap be more effective in helping future trial participants understand MyCourseMap and its application? (E.g. time spent explaining the tool, quality of and access to materials, internet access, clarity of aims of the trial, clarity of instructions, venue, etc.).

Q14. What was the most valuable thing you learned while trialling MyCourseMap and why?

Thank you for participating in this survey, your answers will remain anonymous.

Associate Professor Lisa Tee.
Appendix F: Staff Qualtrics Survey

The online survey questionnaires are similar for staff and students. Below is an example for the staff members.

National Teaching Fellowship: Workshop Evaluation: Qualtrics Survey Questions

Please provide your perceptions of the MyCourseMap tool showcased during the workshop for the National Teaching Fellowship: Making curriculum visible: Engaging students in learning outcomes and career relevance through a multi-dimensional, interactive map.

The workshop aims to:

- stimulate strategic academic discourse on the importance of presenting ‘visible’ curriculum to students, engaging the sector into thinking how they might better communicate curricular information to students to promote awareness of the value and importance of graduate attributes and course (program) learning outcomes
- provide the MyCourseMap tool for institutions as an example of how we can engage students in their learning using a multi-dimensional, interactive curriculum map built on modern technology.

In the survey questions below, a complete program or degree of study is referred to as a COURSE. The modules of study within the entire program are referred to as UNITS.

Q1. Please indicate whether you work at a higher education institution or other organisation/professional body (select all that apply)
   - Staff at higher education institution (1)
   - Staff at other organisation or professional body (provide name or type of organisation) (3)

Q2. Which of the below best describes your primary job role? (select as many that apply)
   - Administrative support (1)
   - Course coordinator (2)
   - Dean or Director of Learning and Teaching (3)
   - IT support (4)
   - Learning & Teaching Centre staff (5)
   - Marketing (6)
   - Senior management (7)
   - Student support services (8)
   - Teaching team member (9)
   - Unit coordinator (10)
   - Other (11) ____________________

Q3. Name the Faculty/School/Department you work in:
   - Faculty (1) ____________________
   - School (2) ____________________
   - Department (3) ____________________
Q4. What is your interest in attending the MyCourseMap workshop?

Q5. **IMPROVING STUDENT ENGAGEMENT WITH THE CURRICULUM:**
When students access course material at the point of enrolment and during their course of study, the way that course material is displayed may affect their engagement with the curricular information and their learning. Staff may similarly be impacted when accessing course materials.

Features of **MyCourseMap** which aim to improve the visibility of the curriculum are listed in the left hand column. Please provide your perceptions in relation to course material below:

<table>
<thead>
<tr>
<th>Feature</th>
<th>This feature is available in my institution:</th>
<th>This feature of MyCourseMap enhances student engagement with curriculum:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EASE OF ACCESS:</strong> Information about course structure and content is easy to access (1)</td>
<td>Agree (1) Unsure (2) Disagree (3)</td>
<td>Agree (1) Unsure (2) Disagree (3)</td>
</tr>
<tr>
<td><strong>WHOLE COURSE IN ONE VIEW:</strong> The entire course can be seen in a single screen/page/view when accessing course information (2)</td>
<td>Agree (1) Unsure (2) Disagree (3)</td>
<td>Agree (1) Unsure (2) Disagree (3)</td>
</tr>
<tr>
<td><strong>GRADUATE ATTRIBUTES:</strong> Graduate attributes are visible in the course material (3)</td>
<td>Agree (1) Unsure (2) Disagree (3)</td>
<td>Agree (1) Unsure (2) Disagree (3)</td>
</tr>
<tr>
<td><strong>COURSE LEARNING OUTCOMES:</strong> Course learning outcomes are visible in the course material (4)</td>
<td>Agree (1) Unsure (2) Disagree (3)</td>
<td>Agree (1) Unsure (2) Disagree (3)</td>
</tr>
<tr>
<td><strong>RELEVANCE OF UNITS TO COURSE AS A WHOLE:</strong> The relevance of a particular unit to overall course structure is clear in course material (5)</td>
<td>Agree (1) Unsure (2) Disagree (3)</td>
<td>Agree (1) Unsure (2) Disagree (3)</td>
</tr>
<tr>
<td><strong>RELEVANCE TO CAREER:</strong> Course material at my institution shows the relevance of units to career choices and progression (6)</td>
<td>Agree (1) Unsure (2) Disagree (3)</td>
<td>Agree (1) Unsure (2) Disagree (3)</td>
</tr>
<tr>
<td><strong>TESTIMONIALS:</strong> Testimonials from students and industry partners talking about units of study are included in course material (7)</td>
<td>Agree (1) Unsure (2) Disagree (3)</td>
<td>Agree (1) Unsure (2) Disagree (3)</td>
</tr>
</tbody>
</table>
Q6. FEATURES OF MyCourseMap

Rank these features of MyCourseMap in terms of how important they are in enhancing engagement with the curriculum, from 1 (most important) to 10 (least important). You may rank these items by dragging them up or down.

_____ Entire course map in one screen (1)
_____ Home page to provide information of school or teaching area (2)
_____ Innovative, interactive curriculum visualisation tool using digital touch technology (3)
_____ Graduate attributes visibly linked to units in the curriculum (4)
_____ Course learning outcomes visibly linked to units in the curriculum (5)
_____ Student testimonial videos to explain relevance of units (6)
_____ Industry testimonial videos link units to career relevance (7)
_____ Interactive unit buttons link to detailed information about units (8)
_____ Information about course structure and content is easy to access (9)
_____ The relevance of a particular module/unit to overall program/course structure is clear (10)

PROMOTING AWARENESS OF GRADUATE ATTRIBUTES AND COURSE LEARNING OUTCOMES:

Please share your perceptions of how MyCourseMap helps to promote awareness of the value and importance of graduate attributes and course (program) learning outcomes.

Q7. The MyCourseMap workshop enhanced my awareness of graduate attributes:
     ☑ Yes (1)
     ☐ No (2)
     ☐ Unsure (3)

Q8. Trialling MyCourseMap enhanced my understanding of how graduate attributes relate to employability:
     ☑ Yes (1)
     ☐ No (2)
     ☐ Unsure (3)

Q9. Trialling MyCourseMap enhanced my awareness of course learning outcomes:
     ☑ Yes (1)
     ☐ No (2)
     ☐ Unsure (3)

Q10. Trialling MyCourseMap enhanced my understanding of the importance of course learning outcomes for graduate success:
     ☑ Yes (1)
     ☐ No (2)
     ☐ Unsure (3)

Q11. What are the best aspects of the MyCourseMap tool?

Q12. What other features could be added to enhance the MyCourseMap tool?

Q13. Will you use MyCourseMap in your course?
     ☑ Definitely yes (1)
Q14. What are the barriers to the implementation of MyCourseMap in your course?

EVALUATION OF WORKSHOP

The next five questions relate to the workshop showcasing MyCourseMap. The workshop aims to:

- stimulate strategic academic discourse on the importance of presenting ‘visible’ curriculum to students, engaging the sector into thinking how they might better communicate curricular information to students to promote awareness of the value and importance of graduate attributes and course (program) learning outcomes
- provide the MyCourseMap tool for institutions as an example of how we can engage students in their learning using a multi-dimensional, interactive curriculum map built on modern technology.

Q15. How do students at your institution currently access information about courses/programs and units?

Q16. Did the workshop achieve its aims?
- Strongly agree (1)
- Agree (2)
- Neutral/undecided (3)
- Disagree (4)
- Strongly disagree (5)

Q17. The workshop deepened my understanding of MyCourseMap and its application to my course/program:
- Strongly agree (1)
- Agree (2)
- Neutral/undecided (3)
- Disagree (4)
- Strongly disagree (5)

Q18. What was the most valuable thing you learned at the MyCourseMap workshop and why?

Q19. After the workshop, what question(s) remains for you with respect to your understanding of MyCourseMap and its application to your course/program?

Q20. In what ways could the workshop be more effective in helping future workshop participants understand MyCourseMap and its application? (E.g. length of workshop, quality of and access to workshop materials, internet access, clarity of aims of the workshop, clarity of instructions, venue, etc.).

Thank you for participating in this survey, your answers will remain anonymous.

Associate Professor Lisa Tee
## Appendix G: EOIs generated

<table>
<thead>
<tr>
<th>Country</th>
<th>University</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Catholic University</td>
<td>RMIT University</td>
</tr>
<tr>
<td></td>
<td>Australian Maritime College</td>
<td>Queensland University of Technology</td>
</tr>
<tr>
<td></td>
<td>Australian National University</td>
<td>University of New South Wales</td>
</tr>
<tr>
<td></td>
<td>Charles Darwin University</td>
<td>University of Newcastle</td>
</tr>
<tr>
<td></td>
<td>Charles Sturt University</td>
<td>University of Queensland</td>
</tr>
<tr>
<td></td>
<td>Curtin University</td>
<td>University of South Australia</td>
</tr>
<tr>
<td></td>
<td>Central Queensland University</td>
<td>University of Southern Queensland</td>
</tr>
<tr>
<td></td>
<td>Edith Cowan University</td>
<td>University of the Sunshine Coast</td>
</tr>
<tr>
<td></td>
<td>Flinders University</td>
<td>University of Sydney</td>
</tr>
<tr>
<td></td>
<td>Griffith University</td>
<td>University of Tasmania</td>
</tr>
<tr>
<td></td>
<td>International College of Hotel Management</td>
<td>University of Western Australia</td>
</tr>
<tr>
<td></td>
<td>Kaplan International Pathways</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Modernista Pty Ltd</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Monash University</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Murdoch University</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>University of Wollongong</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UNSW Global</td>
</tr>
<tr>
<td></td>
<td></td>
<td>William Angliss Institute</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>University of Windsor</td>
<td>Ryerson University</td>
</tr>
<tr>
<td></td>
<td>Mount Royal University</td>
<td>University of Calgary</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>Future University Hakodate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Zealand</td>
<td>University of Auckland</td>
<td>Massey University</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>Niagara Female College</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td>Ngee Ann Polytechnic</td>
<td>Nanyang Technological University</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The United States</td>
<td>Gartner</td>
<td>Sentara College of Health Sciences</td>
</tr>
<tr>
<td>of America</td>
<td>Cumberland County College</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Kingston University</td>
<td>University of London</td>
</tr>
<tr>
<td></td>
<td>Cambridge Assessment</td>
<td>University of Manchester</td>
</tr>
<tr>
<td></td>
<td>Staffordshire University</td>
<td>University of Northampton</td>
</tr>
<tr>
<td></td>
<td>University of Sheffield</td>
<td>University of Sheffield</td>
</tr>
<tr>
<td></td>
<td>University of Bradford</td>
<td></td>
</tr>
</tbody>
</table>

The above EOIs are a collective from conference presentations and dissemination through the fellowship website and ASCILITE webinar. To date there are 108 hits on the YouTube link and 858 hits on the ASCILITE session recording page.