BRiTE: Building Resilience in Teacher Education

Final Report 2015

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https://www.brite.edu.au
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Research assistants, Helen Dempsey and Bich H. N. Nguyen who worked with team members to conduct literature searches, and created the EndNote Library, which formed part of the Environmental Scan phase of the project.

The pre-service teachers who participated willingly in the module trials, provided valuable feedback to inform the final version of the modules. These ‘end users’ kept us in touch with the client needs.

Our External Evaluator who also participated on occasion as a critical friend and provided support and feedback throughout the project.

Lastly, thank you to our valued colleagues who provided a sounding board for ideas and continued enthusiasm for the project.
# List of acronyms used

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AARE</td>
<td>Australian Association for Research in Education</td>
</tr>
<tr>
<td>ACARA</td>
<td>Australian Curriculum, Assessment and Reporting Authority</td>
</tr>
<tr>
<td>AITSL</td>
<td>Australian Institute for Teaching and School Leadership</td>
</tr>
<tr>
<td>APST</td>
<td>Australian Professional Standards for Teachers</td>
</tr>
<tr>
<td>ATEA</td>
<td>Australian Teacher Education Association</td>
</tr>
<tr>
<td>BYOD</td>
<td>Bring your own device</td>
</tr>
<tr>
<td>BRIITE</td>
<td>Building Resilience in Teacher Education</td>
</tr>
<tr>
<td>EARLI</td>
<td>European Association for Research on Learning Instruction</td>
</tr>
<tr>
<td>ENTREE</td>
<td>ENhancing Teacher REsilience in Europe</td>
</tr>
<tr>
<td>EYLF</td>
<td>Early Years Learning Framework</td>
</tr>
<tr>
<td>OLT</td>
<td>Office for Learning and Teaching</td>
</tr>
<tr>
<td>PEX</td>
<td>Professional Experience</td>
</tr>
<tr>
<td>PST</td>
<td>Pre-service teacher</td>
</tr>
<tr>
<td>TEMAG</td>
<td>Teacher Education Ministerial Advisory Group</td>
</tr>
</tbody>
</table>
Executive summary

Context and aims

The Building Resilience in Teacher Education (BRiTE) project was developed in the context of an increased national focus on teacher quality with significant changes in the teaching profession and teacher education curriculum, as well as national and international concern about teacher retention and resilience. In this context, the overarching aim was to develop resources to help pre-service teachers build awareness of the skills and practices that will help facilitate resilience in their teaching career.

There were five key aims for the BRiTE project:

1. To provide pre-service teacher educators with a series of BRiTE learning modules that can be embedded in teacher education programs.
2. To assist pre-service teachers build the personal and social capabilities associated with professional resilience.
3. To engage teacher educators, pre-service teachers, and representatives from key stakeholder groups in discussions about implementation of the modules in teacher education programs.
4. To provide evidence-based guidelines to teacher education providers about how the modules may be used in order to improve teacher preparation in higher education and, more broadly, teacher quality in Australia.
5. To determine whether engagement with the modules is perceived to have an influence on pre-service teachers’ development of resilience.

To achieve these aims, the project was conducted in four phases. Phase 1, an Environmental Scan (September 2013 to January 2014) identified key research regarding teacher resilience and a range of interdisciplinary programs targeting resilience development. This provided the theoretical foundation for the project and informed the development of the BRiTE framework. In Phase 2 (February 2014 to August 2014) the findings from Phase 1 were used to develop the modules in terms of content, learning experiences for users and online design to maximise engagement. During this phase, three trials were conducted with a range of stakeholders who provided feedback and assisted with dissemination. Each module was developed according to particular design principles, including personalisation, interactivity, connection to the profession and connection to the literature. A pilot implementation with pre-service teachers and teacher educators/experts was conducted in Phase 3 (September 2014 to December 2014) with positive results for evaluations of module design and content. Phase 4 (January 2015 to August 2015) involved the production of support materials for teacher educators. Dissemination activities formed a critical part of all phases of the project with increased emphasis on dissemination in Phase 4.

The project team strategically comprised four members, each with specific skills and expertise to contribute to the project. To engage a wide range of stakeholders in the project from the outset, four main stakeholder groups were formed to ensure a broad representation locally and internationally, and to cover a diverse range of professional
Building Resilience in Teacher Education

expertise – pre-service teachers, an interstate Advisory Group of teacher educators, a national and international Reference Group of researchers and experts in the field, and a “BRiTE Community” group of people interested in the project.

Project outputs and findings
The major output from this project is the learning modules available at the BRiTE website (www.brite.edu.au). The five online interactive learning modules address the following topics:

- **Building resilience**: What is resilience and why is it important for teachers?
- **Relationships**: Building and maintaining relationships
- **Wellbeing**: Self-care, motivation and managing work life balance
- **Taking initiative**: Problem solving, ongoing professional learning and communicating effectively
- **Emotions**: Emotional awareness, management and optimism.

Each module begins with a self-reflection quiz, which informs a personal plan for completing each module. Modules contain reflection questions to activate prior knowledge, information about skills and strategies, tips, interactive learning activities, videos, scenarios where skills can be applied, ‘What do the experts say?’ sections, which show how the content is informed by latest research, and further resources. Throughout each module, users may ‘pin’ items of interest to their personal toolkit, which also includes responses to reflection questions. Users can also download their personal toolkit and receive a certificate after completing all modules. Modules are connected to the profession via links to the *Australian Professional Standards for Teachers* (APST), the *Australian Curriculum* and the *Early Years Learning Framework* (EYLF). The modules can be accessed as required and can be revisited at any time, so that users are not confined to completion in a defined time frame.

A further project output is the development of support materials for teacher educators. These are all available from the website (https://www.brite.edu.au/for-teacher-educators) and include the BRiTE Framework, Implementation Guidelines, A Quick Reference Guide, Frequently Asked Questions and a Widget for embedding the BRiTE modules in Learning Management Systems.

The BRiTE project responded to the need for resources to support pre-service teachers’ capacity for resilience. Teacher educators and pre-service teachers positively evaluated the modules according to content and online design. Through data obtained via the website, the pilot implementation and feedback provided by participants, there is evidence that engagement with the modules can positively influence pre-service teachers’ resilience and adoption of particular strategies to manage challenges.

The BRiTE modules will be of benefit to pre-service teachers, teacher educators and employers of teacher education graduates. The modules may also be of interest to higher education providers interested in ways to support resilience of university students, particularly in light of the professions they will enter. Finally, the particular design features of the modules may be of interest to those developing online resources and learning experiences for students in higher education.
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1: Project context and aims

1.1 Project context

The *Building Resilience in Teacher Education* (BRiTE) project was developed in the context of an increased national focus on teacher quality with significant changes in the teaching profession and teacher education curriculum in higher education. In addition, there has been ongoing national and international concern about teacher retention and resilience, which, in turn, has impacted teacher education. Recent research of team members, as well as findings of the previous project, *Keeping Cool: Embedding Resiliency in the Initial Teacher Education Curriculum* (Mansfield, et al., 2012) also informed BRiTE.

National approaches to improving teacher quality

Since 2010, there have been significant changes to the teaching profession with a focus on improving teacher quality. Initiatives such as the establishment of the Australian Institute for Teaching and School Leadership (AITSL), development of *Australian Professional Standards for Teachers* (APST) (AITSL, 2011a) and *Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures* (AITSL, 2011b) have sought to improve teacher quality at the pre-service and in-service levels. The accreditation standards and procedures also set requirements for teacher education curriculum, including program structure and content, minimum requirements for the proportion of program given to the discipline of learning areas, and discipline-specific curriculum and pedagogical studies (AITSL, 2011b). Teacher education providers must also show how their programs address the APST at the graduate level, thus increasing external pressure on the teacher education curriculum. Although the standards refer to some potential challenges for beginning teachers (such as managing student behavior and catering for diversity), there are no standards that directly refer to teachers’ capacity to manage their own wellbeing, even though this is widely acknowledged as an important skill for teachers.

Following these changes, additional recommendations have been advocated by the Teacher Education Ministerial Advisory Group (TEMAG) report, *Action Now: Classroom Ready Teachers* (Teacher Education Ministerial Advisory Group, 2014). In specific terms, recommendations are made regarding selection for entry into teacher education programs, noting that a consideration of both academic skills and desirable personal attributes, or qualities for teaching, be actioned in order to foster student development and learning.

These initiatives and recommendations highlight the increasing focus on teacher quality at a national level and acknowledge the importance of personal attributes and skills. In turn, they set the scene for a continuing focus on teacher quality in the future and have an immediate impact on teacher education programs.

Ongoing national and international concern about teacher retention and resilience

Alongside these national developments, teacher retention has been an ongoing issue internationally as well as in Australia with an estimated 25 per cent of teachers found to be leaving the profession within the first five years (Productivity Commission, 2012, p. 100).
Studies exploring why teachers leave have pointed to teacher stress and burnout (Schlichte, Yssel, & Merbler, 2005), yet more recent studies have sought to identify why teachers remain in the profession and ‘thrive’ not just ‘survive’ (Beltman, Mansfield, & Price, 2011). This resilience-focused approach has gained momentum both nationally and internationally with research determining individual and contextual risk and protective factors that influence teacher resilience (e.g. Fantilli & McDougall, 2009; Mansfield, Beltman, & Price, 2014), and making recommendations for improvements at the individual, school and system levels (e.g. Johnson et al., 2014). Some studies have addressed teacher resilience at the pre-service level (e.g. Le Cornu, 2009). Furthermore, the literature affirms that pre-service programs have a crucial role to play in developing resilience, and specific suggestions as to how this could be done have been made (e.g. Ee & Chang, 2010). The BRiTE modules draw on the literature in this field to underpin key themes and learning experiences.

**Previous work in the field**

The findings and recommendations from the previous project, *Keeping Cool: Embedding Resilience in Initial Teacher Education Curriculum* (Mansfield, et al., 2012), the empirically driven teacher resilience framework (Mansfield, Beltman, Price, & McConney, 2012) and the website developed in this project (www.keepingcool.edu.au) highlighted the need for the development of specific resources addressing aspects of resilience for teachers. Developing teacher education curricula to build the capacity for professional resilience at the pre-service level is advantageous for pre-service teachers themselves, as well as future employers and school students.

**1.2 Project aims**

There were five key aims for the BRiTE project:

1. To provide pre-service teacher educators with a series of BRiTE learning modules that can be embedded in teacher education programs.
2. To assist pre-service teachers build the personal and social capabilities associated with professional resilience.
3. To engage teacher educators, pre-service teachers, and representatives from key stakeholder groups in discussions about implementation of the modules in teacher education programs.
4. To provide evidence-based guidelines to teacher education providers about how the modules may be used in order to improve teacher preparation in higher education and, more broadly, teacher quality in Australia.
5. To determine whether engagement with the modules is perceived to have an influence on pre-service teachers’ development of resilience.

These aims informed the project approach and process, as well as the proposed key deliverables, namely the BRiTE online modules and suggestions for implementation.
2: Project approach and methodology

The approach taken in this project was grounded in two main fields of literature: the literature regarding teacher resilience (e.g. Beltman et al., 2011), which informed the module content and learning activities, and literature regarding design-based research (e.g. Reeves, Herrington, & Oliver, 2005), which informed the process of module development.

The approach was also consistent with the Office for Learning and Teaching (OLT) emphasis on curriculum design. In particular, integrating content-focused developments in the discipline (i.e. teacher education program standards, APST, teacher resilience literature), with learning and teaching innovations (i.e. online modules). Furthermore, the approach was designed to maximise sustainability through engagement of stakeholders throughout the sector, ongoing dissemination, and stakeholder involvement in implementation strategies, and successfully achieved this.

The outcome of the approach was the successful development of five online modules, which are innovative in the field and have been positively evaluated by a range of stakeholder groups. The modules are also unique, as no resource such as this, aligned with current developments in the sector, currently exists.

2.1 Project team and Reference Group

The project team strategically comprised four members, each with specific skills and expertise to contribute to the project. Two team members (Mansfield and Beltman) had expertise in the field of teacher resilience and were team members of the Keeping Cool project (Mansfield, et al., 2012). Three team members were working as teacher educators (Mansfield, Beltman and Weatherby-Fell) and one had expertise in online learning in higher education (Broadley). The team members were also involved in local, national and international professional networks, which were used to maximise dissemination throughout the project.

To engage a wide range of stakeholders in the project from the outset, four main stakeholder groups were formed to ensure a broad representation locally and internationally, and to cover a diverse range of professional expertise – pre-service teachers, an interstate Advisory Group, a national and international Reference Group and a “BRiTE Community” group of people interested in the project. The role and involvement of stakeholder groups is shown in Table 1.
Table 1: Project stakeholders and involvement

<table>
<thead>
<tr>
<th>Group</th>
<th>Role and contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-service teachers (194 members)</td>
<td>Pre-service teachers who participated in module trials, providing feedback during module development and participated in the pilot implementation.</td>
</tr>
<tr>
<td>Advisory Group (27 Teacher educators representing each state)</td>
<td>The Advisory Group were involved in module trials, giving feedback regarding content, design, learning and assessment activities and online accessibility.</td>
</tr>
<tr>
<td>Reference Group (13 international experts and representatives from professional associations)</td>
<td>The Reference Group offered specialised feedback about particular aspects of the project and participated in module trials, where available.</td>
</tr>
<tr>
<td>BRiTE Community (55 individuals interested in the project)</td>
<td>This BRiTE Community grew in number throughout the project. Community members were kept informed of project progress and invited to dissemination activities through a quarterly email newsletter.</td>
</tr>
</tbody>
</table>

Two project team members (Mansfield and Beltman) were also third-country partners in the project *Keeping Cool Europe: Enhancing Teacher Resilience in Europe* (ENTREE) (Wosnitza, et al., 2013). This project built on the previous *Keeping Cool* project (Mansfield, et al., 2012) and involved six European partners, developing online and face-to-face resources to support teacher resilience in Europe (http://entree-project.eu/en). The ENTREE project is evidence of the uptake and impact of the previous work and the interest internationally in supporting teacher resilience.

During the project period, Mansfield and Beltman attended five ENTREE meetings, reporting updates on BRiTE, providing project support and maximising opportunities for feedback and dissemination of the BRiTE project. The relationship between the projects was one of collaboration and reciprocity with the intention of sharing expertise to increase the impact of the respective projects. Furthermore, the international connection and goodwill between project members resulted in opportunities for wider international dissemination, with two joint symposia in the EARLI (European Association for Research on Learning and Instruction) conference in August 2015 (Beltman, Mansfield, Weatherby-Fell & Broadley, 2015; Mansfield, Beltman, Weatherby-Fell & Broadley, 2015).

The diverse skills and breadth of expertise of all those involved in the BRiTE project were a crucial factor in achieving successful outcomes in a timely fashion. Future projects may consider the benefits of various stakeholder groups in broadening project reach.
2.2 Project phases

To achieve the project aims, there were four main phases in the project. These are outlined in Figure 1. Phase 1, an Environmental Scan (September 2013 to January 2014), provided a foundation for the rest of the project and is represented by the clear rectangular shapes to the left in Figure 1. The results from the environmental scan, along with input from Reference and Advisory Groups were used to develop the BRiTE Framework. Phase 2 (February 2014 to August 2014) involved the design of the modules with three trials and related module reviews, and feedback and dissemination points. Phase 3 (September 2014 to December 2014) ‘Pilot Implementation’ occurred between the ‘Module Review 3’ and the ‘Final Design’ of the modules. Phase 4 (January 2015 to August 2015) involved the production of the Implementation Guidelines and dissemination of these and of the completed modules.

Figure 1: BRiTE project phases

Phase 1: Environmental Scan and development of the BRiTE framework

The purpose of the Environmental Scan was fourfold and aimed to ensure that the content of the online modules reflected best practice based on the following:

- knowledge of practising experts in the fields of education and wellbeing
- literature regarding resilience-building programs in education and other caring professions
• literature regarding key factors associated with teacher resilience
• multi-media resources available to support the resilience of teachers and pre-service teachers.

Research assistants were employed to assist with the search and analysis of literature relating to resilience programs. An Endnote library was developed in which the 58 papers reporting such programs were grouped according to their setting or target group: school students (n = 17), higher education (n = 16), teachers (n = 14), nurses (n = 1), social workers (n = 3), military (n = 4), and other (n = 3). The materials comprised online programs (e.g. Stallman, Kavanagh, Ralph, Edge, & Gibson, 2015), printed published programs in workbooks or manuals (e.g. McGrath & Noble, 2003), research on projects or programs (e.g. Niessen, Sonnentag, & Sach, 2012), position papers about what such programs should contain (e.g. McAllister & McKinnon, 2009) and reports describing programs or interventions – sometimes with preliminary evaluations (e.g. Bozic & Williams, 2011). This scan enabled preliminary identification of the nature and scope of programs and interventions, although it was interesting to note that online programs or materials were limited. Following this initial scan, a more focused approach was taken to gathering peer-reviewed, evidence-based information in order to ensure the modules developed for the current project were based on a sound foundation and were directly relevant to the context of teaching.

In order to provide a sound foundation for the project, therefore, an extensive literature search was carried out to identify key factors associated with teacher resilience. The first broad sweep of the literature included literature from a previous review (Beltman et al., 2011) conducted as part of the Keeping Cool project (Mansfield, et al., 2012). An annotated bibliography was created comprising 157 annotated theoretical and empirical refereed journal articles, conference papers, conference proceedings, book chapters, books, and theses that examined the construct of teacher resilience. Each annotated entry outlined the aim of the paper, research methodology, findings (if it was an empirical study), discussion, and implications for future actions/research. See http://www.keepingcool.edu.au/node/21 for the complete bibliography.

The literature obtained was then refined using specific search parameters that included only publications between 2000 and 2014 (inclusive). Search terms included ‘teach’ and ‘resilience’ or ‘resilient’. The resulting two book chapters and 69 journal articles were further analysed by the project research team. The analysis of the papers resulted in 51 separate factors, which were then used to develop an evidence-based resilience framework – which in turn informed the development of content for modules. Details of the analysis and of the development of the framework have been published (Mansfield, Beltman, Broadley, & Weatherby-Fell, 2016). In brief, the factors were grouped according to personal resources, which included motivational (e.g. efficacy; initiative) and emotional (e.g. optimism; hope); contextual resources, which included various types of relationships and support networks; strategies, such as problem-solving and reflection; and outcomes, such as wellbeing and job satisfaction. When grouped thematically, five themes appeared: understanding and building resilience, relationships, wellbeing, motivation (including taking initiative), and emotions. These themes formed the basis of the five BRiTE modules as shown in Table 2, which also includes possible teaching and learning strategies suggested in this literature.
Table 2: Building Resilience in Teacher Education: The BRiTE framework

<table>
<thead>
<tr>
<th>Informed by the literature</th>
<th>Example pre-service topics</th>
<th>Possible teaching and learning strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theme: Building resilience</strong></td>
<td>• What is resilience?</td>
<td>Reflecting and discussing with peers, mentors, teachers.</td>
</tr>
<tr>
<td>Resilience as a dynamic, multifaceted process where individuals mobilise personal and contextual resources and use coping strategies to enable resilience outcomes.</td>
<td>• Why is resilience important for teachers?</td>
<td>Examining case studies and videos illustrating professional challenges.</td>
</tr>
<tr>
<td></td>
<td>• Resilience in schools.</td>
<td>Engaging with problem-solving activities related to authentic scenarios.</td>
</tr>
<tr>
<td></td>
<td>• What makes a resilient teacher?</td>
<td>Analysing videos of teachers talking about how to address challenges.</td>
</tr>
<tr>
<td></td>
<td>• The resilience process – bouncing back and bouncing forward.</td>
<td>Identifying and practising adaptive coping strategies.</td>
</tr>
<tr>
<td><strong>Theme: Relationships</strong></td>
<td>• Understanding relationships and resilience.</td>
<td>Practising reframing skills and optimistic thinking.</td>
</tr>
<tr>
<td>Social competence (for building relationships, support networks and working collaboratively), setting boundaries, communication.</td>
<td>• Building relationships in schools.</td>
<td>Practising effective communication skills for a range of situations.</td>
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<tr>
<td></td>
<td>• Working in a professional team.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Building personal and professional support networks.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Using social media support networks.</td>
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<tr>
<td></td>
<td>• Communicating effectively.</td>
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<tr>
<td><strong>Theme: Wellbeing</strong></td>
<td>• Understanding personal wellbeing and mental health.</td>
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<tr>
<td>Seeking renewal, work–life balance, time management.</td>
<td>• Responding to and managing (dis)stress.</td>
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<td></td>
<td>• Healthy living.</td>
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<tr>
<td></td>
<td>• Managing work–life balance.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Time management.</td>
<td></td>
</tr>
<tr>
<td><strong>Theme: Taking initiative</strong></td>
<td>• Maintaining motivation.</td>
<td>Reflecting on personal resources and strategies via self-assessment tools and planning for self-development.</td>
</tr>
<tr>
<td>Efficacy, value, sense of purpose, sense of vocation, initiative, high expectations, problem solving, professional learning, goal setting, help seeking, reflection, persistence.</td>
<td>• Persistence and efficacy.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Problem-solving processes.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Goal setting and management.</td>
<td></td>
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<tr>
<td></td>
<td>• Help seeking.</td>
<td></td>
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<tr>
<td></td>
<td>• Ongoing professional learning.</td>
<td></td>
</tr>
<tr>
<td><strong>Theme: Emotions</strong></td>
<td>• Emotional awareness.</td>
<td>Conducting action research projects.</td>
</tr>
<tr>
<td>Emotional competence*, optimism, empathy, hope, courage, humour, emotion regulation, mindfulness.</td>
<td>• Optimistic thinking.</td>
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<tr>
<td></td>
<td>• Enhancing positive emotions.</td>
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<td></td>
<td>• Managing emotions.</td>
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</table>
As well as informing the conceptual underpinnings of the modules, the literature identified in this phase contributed to the writing of ‘What do the experts say?’ sections in each online module. This was deemed critical by the project team so as to show how the concepts in each module had been informed by research and to make this research accessible to module users.

The Environmental Scan also identified a range of resources to support resilience. It became evident that there was a range of resources available that could be used to inform the modules as well as illustrate the concepts or skills being developed. For example, the AITSL TeacherFeature (http://www.aitsl.edu.au/teacher-feature) includes teachers discussing aspects of managing the profession (e.g. ‘What advice would you give to a teacher beginning their career?’) and strategies for working in rural areas. Fact Sheets and videos about resilience and wellbeing from ResponseAbility (http://www.responseability.org/) and KidsMatter (http://www.kidsmatter.edu.au/) were also identified. As well as deciding to embed some of these resources in the modules, the team agreed to include additional resources at the end of each module, to enable pre-service teachers or teacher educators to follow up on any concepts or skills in more depth. These appear in the further resources section of the website – see https://www.brite.edu.au/BRITE/Home/Resources (login required).

**Phase 2: Module design and development**

In Phase 2, Aims 1 and 3 were addressed: the BRiTE modules were developed and stakeholders were engaged in discussions about module development and implementation. The process in Phase 2 was informed by design-based research, ‘a methodology designed by and for educators that seeks to increase the impact, transfer, and translation of education research into improved practice’ (Anderson & Shattuck, 2012, p. 16). The modules were developed in a staged approach, where stakeholder trials and opportunities for feedback and dissemination were integral to the process. Figure 1 shows the process of module design, which used input from the Reference Group and Environmental Scan, trials with feedback from various stakeholders, revisions, and then development of the final version.

**Design-based research and design principles**

In design-based research, the intent is to produce ‘new theories, artefacts and practices that account for and potentially impact learning and teaching in naturalistic settings’ (Barab & Squire, 2004, p. 2). Applying this systematic but flexible methodology allowed for a significant contribution from the project team, Advisory and Reference Groups (as noted above), and web designers to improve the educational outcomes of the modules. This methodology enabled the project to employ an iterative process of analysis, design, development and implementation, as illustrated in Figure 1. An important aspect of the process was to be cognisant of the constructive alignment of the modules, both vertically and horizontally. Learning outcomes, learning activities and feedback mechanisms were considered and planned through a methodical approach that ensured users of the resilience modules were scaffolded in appropriate ways.

The modules were developed both for independent access and to complement face-to-face, blended, or online teacher education courses. The following principles informed the module design:
Building Resilience in Teacher Education

- **Personalised:** e.g. opportunities to ‘pin’ items for later reference
- **Interactive:** e.g. ‘What would you do?’ scenarios
- **Grounded in the literature:** e.g. ‘What do the experts say’?
- **Connected to the teaching profession:** e.g. videos embedded.

O’Donnell, Lawless, Sharp, & Wade (2015) defined personalised learning as the provision to each user ‘of content or an experience which has been tailored to suit their specific needs based on implicit or explicit information about that user’ (p. 23). To this end, the project designed a set of online modules, four of which began with a self-reflection quiz that provided information about the user and then automatically prioritised their learning path through the topics in the module. The website was designed so that users were required to reflect on key themes, inputting ideas before progressing to further information and activities. Personalisation and interactivity also underpinned the design of the modules through a personal toolkit, which can be developed throughout the learning journey. Users could also ‘pin’ and save information to their toolkit for future use as desired.

Modules were interactive, as individuals responded to scenarios designed to allow users to apply their resilience, have opportunities for reflection, and contribute ideas regarding useful additional strategies. Modules were practice-based and connected to the profession, with teacher voices frequently ‘heard’ through videos, as well as direct quotes from our research featuring pre-service and early-career teachers. Dynamic principles meant the modules included non-linear navigation, multimedia links and further resources. Importantly, modules were grounded in the literature or were evidence-informed, with reference to supporting research and literature a key feature of each topic.

**Design-based trials**

As indicated in Phase 1, the content of the modules was designed using input from the Reference Group and Environmental Scan. After working with the web designers and various online learning experts, one module was developed to trial with three stakeholder groups (pre-service teachers, Reference and Advisory Groups, and teacher educators) as shown in Figure 1. The Relationship (R) module included all of the design principles (i.e. personalised, interactive, grounded in the literature and connected to the profession) that were considered the foundation of future module design. This allowed the stakeholders at each trial to be focused on engagement with one module and proved to be an efficient use of stakeholders’ time. The development of other modules was based on the trialled and refined R module with further input for refinement from the Reference Group.

The first trial was undertaken with pre-service teachers in May 2014 with positive results. Forty-eight second year pre-service teachers (22 primary; 26 secondary) from an Australian university, who had completed one school placement, participated in the trial. Participants attended a session in a computer laboratory and worked through the module at their own pace. Feedback was provided via an anonymous pen and paper evaluation regarding content and online design. The evaluation included 18 questions with a five-point Likert scale (strongly agree to strongly disagree) asking users to evaluate aspects of the module including knowledge and skills, overall design and aesthetic appeal. Two open-ended questions asked for users to identify the time they had taken to participate and any
additional comments. In line with design-based research methodology, further module review and refinement were undertaken to incorporate the feedback from this trial.

The second trial was held in July 2014, with 13 participants from the Australian Teacher Education Association (ATEA) conference, held at the Australian Catholic University in Sydney. This trial involved teacher educators accessing the Relationships module, providing feedback on a paper-based survey about usability, technical aspects, layout and content-specific input from relevant disciplines. These data were used to refine and redevelop the modules prior to the third trial. The trial was very well received with participants taking the time to be specific and generous with their feedback.

The third and final trial occurred in August 2014, where Reference and Advisory Group members were invited to engage with the Relationship module. This stakeholder group included consultant psychologists, exercise physiologists, teacher educators and online learning experts who attended this final trial to ensure all key design features of the modules were reviewed prior to release. In this phase of trials, minor aspects were highlighted for refinement, including mainly aesthetic issues such as darkening of font colour and sizing of text boxes. One major design refinement from this trial included users having the option of saving and printing the toolkit for further reflection.

The design-based trials outlined in this section provided a longitudinal, cyclical improvement process to enhance the quality of the content and online learning experience. It proved to be a highly successful model as the project team gathered integral feedback from a broad range of trial participants, including users, experts in the field of teacher education and resilience research, and online learning / instructional design experts.

**Phase 3: Pilot implementation**

The third phase of the project was designed to achieve Aims 2 and 5 of the project, and was conducted in two stages (see Figure 1).

**Stage One**

Two cohorts of participants piloted the online modules. The first cohort comprised pre-service teachers (n = 144). The second cohort (n = 37) comprised teacher educators as well as education experts who were also members of the Reference or Advisory Group for the BRiTE project. Participants were provided with instructions and could access and complete as many of the modules as they preferred over the course of eight weeks. At the end of each module, the pre-service teacher participants were asked to provide feedback on aspects such as how helpful they found the content of the modules, and whether they believed they would use the information in the future, and recommend modules to their peers. Similarly, at the end of each module, education professionals were asked to provide feedback on questions about the potential suitability of the modules for teacher education courses.

For this trial the modules had to be worked though in the order presented. At the completion of each module, users were asked to complete a short evaluation comprising a five-point rating scale (1 = strongly disagree; 5 = strongly agree) for items related to module content and online design. Tables 3 and 4 present the quantitative results from the
evaluation rating items for each cohort. The full module evaluation questions are shown in Appendix B.

Table 3: BRiTE module evaluation: Mean scores pre-service teacher (PST) participants

<table>
<thead>
<tr>
<th>Question</th>
<th>Module 1</th>
<th>Module 2</th>
<th>Module 3</th>
<th>Module 4</th>
<th>Module 5</th>
<th>Question mean</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Useful</td>
<td>4.2</td>
<td>4.0</td>
<td>4.2</td>
<td>4.2</td>
<td>4.3</td>
<td>4.2</td>
</tr>
<tr>
<td>Interesting</td>
<td>4.1</td>
<td>3.9</td>
<td>4.2</td>
<td>4.1</td>
<td>4.3</td>
<td>4.1</td>
</tr>
<tr>
<td>Relevant</td>
<td>4.4</td>
<td>4.1</td>
<td>4.3</td>
<td>4.3</td>
<td>4.4</td>
<td>4.3</td>
</tr>
<tr>
<td>Appropriate level</td>
<td>4.4</td>
<td>4.2</td>
<td>4.3</td>
<td>4.4</td>
<td>4.3</td>
<td>4.3</td>
</tr>
<tr>
<td>Enjoyable</td>
<td>3.9</td>
<td>3.8</td>
<td>4.0</td>
<td>3.9</td>
<td>4.1</td>
<td>3.9</td>
</tr>
<tr>
<td>Enabled reflection</td>
<td>4.1</td>
<td>3.9</td>
<td>4.2</td>
<td>4.3</td>
<td>4.3</td>
<td>4.2</td>
</tr>
<tr>
<td>Raised awareness</td>
<td>4.1</td>
<td>4.1</td>
<td>4.2</td>
<td>4.2</td>
<td>4.2</td>
<td>4.2</td>
</tr>
<tr>
<td>Enabled development of knowledge and skills</td>
<td>4.0</td>
<td>3.8</td>
<td>4.0</td>
<td>4.1</td>
<td>4.2</td>
<td>4.0</td>
</tr>
<tr>
<td>Consider new ideas</td>
<td>3.8</td>
<td>3.8</td>
<td>3.7</td>
<td>3.8</td>
<td>4.0</td>
<td>3.8</td>
</tr>
<tr>
<td>Will use content in Professional Experience</td>
<td>4.0</td>
<td>3.9</td>
<td>3.9</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Will use content in teaching career</td>
<td>4.2</td>
<td>4.1</td>
<td>4.1</td>
<td>4.2</td>
<td>4.3</td>
<td>4.2</td>
</tr>
<tr>
<td>Will refer to in future</td>
<td>4.0</td>
<td>3.7</td>
<td>3.9</td>
<td>4.0</td>
<td>4.0</td>
<td>3.9</td>
</tr>
<tr>
<td>Will recommend to friends</td>
<td>3.9</td>
<td>3.8</td>
<td>3.8</td>
<td>3.9</td>
<td>3.9</td>
<td>3.9</td>
</tr>
<tr>
<td><strong>Content mean</strong></td>
<td>4.1</td>
<td>3.9</td>
<td>4.1</td>
<td>4.1</td>
<td>4.2</td>
<td>4.1</td>
</tr>
<tr>
<td><strong>Online design</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appealing</td>
<td>4.3</td>
<td>4.2</td>
<td>4.3</td>
<td>4.3</td>
<td>4.4</td>
<td>4.3</td>
</tr>
<tr>
<td>Graphics appropriate</td>
<td>4.3</td>
<td>4.3</td>
<td>4.3</td>
<td>4.3</td>
<td>4.3</td>
<td>4.3</td>
</tr>
<tr>
<td>Navigable</td>
<td>4.5</td>
<td>4.2</td>
<td>4.2</td>
<td>4.3</td>
<td>4.4</td>
<td>4.3</td>
</tr>
<tr>
<td>Organised</td>
<td>4.5</td>
<td>4.3</td>
<td>4.4</td>
<td>4.4</td>
<td>4.4</td>
<td>4.4</td>
</tr>
<tr>
<td>Links work</td>
<td>4.6</td>
<td>3.8</td>
<td>3.7</td>
<td>4.3</td>
<td>4.2</td>
<td>4.1</td>
</tr>
<tr>
<td><strong>Online design mean</strong></td>
<td>4.4</td>
<td>4.2</td>
<td>4.2</td>
<td>4.3</td>
<td>4.3</td>
<td>4.3</td>
</tr>
<tr>
<td><strong>Overall mean</strong></td>
<td>4.2</td>
<td>4.0</td>
<td>4.1</td>
<td>4.2</td>
<td>4.2</td>
<td>4.2</td>
</tr>
<tr>
<td>No. &amp; per cent participants completed evaluation</td>
<td>117 (81%)</td>
<td>81 (56%)</td>
<td>73 (51%)</td>
<td>71 (49.3%)</td>
<td>67 (46.5%)</td>
<td></td>
</tr>
</tbody>
</table>
As may be seen in Tables 3 and 4, the quantitative evaluations of the modules were highly positive for both cohorts trialling the modules. Not all participants completed module evaluations, and some participants completed module evaluations for some but not all of the modules they completed. Although the number of users participating in the completion of the modules, and the module evaluation completions, dropped over modules 1 to 5, it is noteworthy that the mean scores for those participants who did complete all of the modules and completed module evaluations, did not drop. This indicates that participants who continued to work through all of the BRiTE modules found the later modules to be equally useful and engaging in terms of content and design. The findings also show that both cohorts of participants were closely aligned in their evaluative feedback on the relevance and the usefulness of the BRiTE modules for teacher education.

In addition to the quantitative evaluations, qualitative data were collected. At the end of each module all participants were asked: *Are there any comments you’d like to make about*...
Educational professional (non-pre-service teacher) participants were also asked: **How do you think this module could be used in teacher education programs?**

In the qualitative data, pre-service teachers identified strengths of the content, such as encouraging reflection, use of practical examples, resources and tips, useful information and videos, and well-organised information. For example:

> The module was well organised and the content useful, in particular the provision of practical examples. (Participant 14, 2014)
> This module gave me some great suggestions on how to build and maintain relationships in a new school environment. (Participant 95, 2014)
> It allowed me to reflect on my own teaching practice, I will definitely be using this during my next PEX [Professional Experience] and also in my future teaching career. (Participant 15, 2014)

In terms of the online design, strengths included use of a variety of different media to present topics, opportunities for reflection, creation of personalised toolbox, ability to ‘pin’ ideas and add to personal toolbox, and ease of navigation. Pre-service teachers also commented that they would refer to the modules in the future.

Non-pre-service teacher participants noted the importance of the resource for pre-service teachers, the engaging and well-presented learning design, effective use of the AITSL standards and resources, and a good balance of theory and practice. For example:

> This is an excellent resource for teachers and teacher educators to help stimulate discussion, reflection and training on all areas related to resilience. (Participant 8, 2014)
> This module provides some great strategies for pre-service teachers to learn to cope with the stressors of the profession, and hopefully these strategies will be carried forward well into their careers. The importance of this cannot be underestimated, as burnout is not necessarily sudden; it can be a very drawn-out and painful process. (Participant 2, 2014)
> A good balance of theory, videos of personal experiences and practical advice. It is easy to navigate and the tips and advice is given in a supportive non-judgemental way. (Participant 22, 2014)

Suggestions were also made regarding how the modules could be used in initial teacher education programs. For example:

> Students could complete the module right before a practicum placement as they will likely see much of the examples given in schools as well go through their own challenges as they cope with the pressure of these learning experiences. Perhaps it could be used in a professional practice unit, where students all complete the module as a group with opportunity to ask questions, discuss and complete the activities together. (Participant 20, 2014)
> This module could be incorporated into the Professional Practice unit to equip pre-service teachers with mental strengths before being placed in a school for their practicum. The knowledge in the module will be necessary for pre-service teachers to deal with various levels of stress and adversity in the classroom, e.g., challenging students, prac-life balance, the heavy load of lesson planning, etc. (Participant 10, 2014)
Some comments were made regarding improving the modules. For example, general comments included providing an indication of the time needed to complete a module, varying the text box style, enabling a printed page of the tips at the end of each module, and including quotes from renowned people. Most of the suggestions were incorporated into the final version of the modules.

Stage Two

In the first stage, pre-service teachers were also required to complete an online survey before engaging with the modules. The survey included 12 scales measuring teacher resilience (profession-related; motivation; social; emotional; general), commitment, rumination, efficacy and coping (appraisal; social; challenge; avoidance). Participants from the university cohort who completed the survey and then the modules before their final school placement were invited to complete another survey after their final school placement. The post-placement survey also included items regarding perceptions of the modules’ content. The scales used were from previous studies and from the partner EU ENTREE Project and are listed in Table 5.

Table 5: Scales used in pre- and post-placement surveys

<table>
<thead>
<tr>
<th>Scale</th>
<th>Scale Name</th>
<th>Source</th>
<th>No. of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRP</td>
<td>Teacher Resilience – Profession</td>
<td>Mansfield &amp; Wosnitza, 2014</td>
<td>6</td>
</tr>
<tr>
<td>TRM</td>
<td>Teacher Resilience – Motivation</td>
<td>Mansfield &amp; Wosnitza, 2014</td>
<td>10</td>
</tr>
<tr>
<td>TRE</td>
<td>Teacher Resilience – Emotion</td>
<td>Mansfield &amp; Wosnitza, 2014</td>
<td>6</td>
</tr>
<tr>
<td>TRS</td>
<td>Teacher Resilience – Social</td>
<td>Mansfield &amp; Wosnitza, 2014</td>
<td>4</td>
</tr>
<tr>
<td>TCG</td>
<td>Teacher Commitment – General</td>
<td>Morgan, 2011</td>
<td>5</td>
</tr>
<tr>
<td>RUM</td>
<td>Rumination</td>
<td>Morgan, 2011</td>
<td>7</td>
</tr>
<tr>
<td>TRG</td>
<td>Teacher Resilience – General</td>
<td>Morgan, 2011</td>
<td>9</td>
</tr>
<tr>
<td>TEF</td>
<td>Teacher Efficacy</td>
<td>Morgan, 2011</td>
<td>12</td>
</tr>
<tr>
<td>CAP</td>
<td>Coping – Appraisal</td>
<td>Deakin Coping Scales (Moore, 2003)</td>
<td>7</td>
</tr>
<tr>
<td>CSO</td>
<td>Coping – Social</td>
<td>Deakin Coping Scales (Moore, 2003)</td>
<td>4</td>
</tr>
<tr>
<td>CCH</td>
<td>Coping – Challenge</td>
<td>Deakin Coping Scales (Moore, 2003)</td>
<td>4</td>
</tr>
<tr>
<td>CAV</td>
<td>Coping – Avoidance</td>
<td>Deakin Coping Scales (Moore, 2003)</td>
<td>4</td>
</tr>
</tbody>
</table>

In addition to these scales, at the second measurement point, the participants were asked questions regarding the extent to which the BRiTE modules were used during the placement, or Professional Experience (PEX) period. For example, one question was: ‘During your PEX, to what extent did you use items from your BRiTE toolkit?’ (1 = never; 5 = definitely). Forty-nine students completed both pre- and post-placement surveys. Analysis of the data revealed that there were moderately significant increases between the two measurement points for most of the scales. Scores on all five pre- and post-placement

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1 TRP, TRM, TRE, and TRS are newly developed scales (Mansfield & Wosnitza, 2014) based on the authors’ earlier work on teacher resilience (Mansfield, Beltman, Price, & McConney, 2012). TCG, RUM, TRG and TEF are taken from (Morgan, 2011). The Deakin Coping Scales (Moore, 2003) CAP, CSO, CCH and CAV were also used.
resilience measures increased significantly. There was also a significant increase for teaching efficacy and two of the four coping scales (appraisal and social).

The changes could have been related to simply undergoing the school placement. To examine the impact of using the BRiTE modules, the matched data sets were divided according to whether or not participants said they had used the modules during their placement. Users (n = 32) scored significantly higher scores than non-users (n = 17) on the post-placement survey scales of differentiated teacher resilience (not general), and of teacher commitment and efficacy. Perhaps, surprisingly, coping measures did not differ between groups. To further explore the extent to which survey results may have been influenced by other factors, we conducted 30 interviews with pre-service teachers. Findings from those interviews will be discussed in a forthcoming publication.

The study indicated that using the online modules assisted pre-service teachers to develop their capacity for resilience during their placement, enhancing their self-efficacy and commitment to the profession. More detailed description of the scales, analysis and discussion of the results were presented at the Australian Association for Research in Education (AARE) conference in Fremantle in November 2015 (Beltman, Wosnitza, Mansfield, Broadley & Weatherby-Fell, 2015), and appear in a forthcoming publication (Beltman et al., in preparation). At the AARE conference, the paper, ‘Using online modules to develop pre-service teachers’ capacity for resilience’ was in the symposium (convenor: Beltman) entitled: ‘Beginning teacher resilience: Making a difference’.

**Phase 4: Implementation guidelines**

The key task of Phase 4 was to develop implementation guidelines for teacher educators, showing how the modules may be used in order to improve teacher preparation in higher education and, more broadly, teacher quality in Australia (project aim 4). During this phase, two key documents were developed (Implementation Guidelines and the BRiTE Quick Reference Guide), and a section for teacher educators was created on the BRiTE website.

In developing implementation guidelines, the project team drew on their expertise as teacher educators and feedback obtained through discussions with colleagues and at dissemination points. Consideration was also given to the range of teacher preparation courses available in Australia (Bachelor, Graduate Diploma, or Masters level qualifications) and careful thought given to possible approaches. To allow flexibility in implementation it was decided that four possible approaches to implementation might be suggested, as in Table 6. As will be seen in the later Dissemination section of this report, teacher educators are beginning to take up the implementation of the modules.

These approaches to implementation have been published in the Implementation Guidelines (Appendix C), which also include an overview of module content and design, and a table showing how the modules are connected to the APST, the Australian Curriculum and the EYLF. The Implementation Guidelines were sent to all Reference and Advisory Group members, those participating in workshops and the BRiTE Community group.
Table 6: Implementation possibilities for BRiTE modules in teacher education programs

| Raising awareness (Appetizers)                                      | • Introduce pre-service teachers to the modules within class or online resources.  
|                                                                  | • Provide the web address to the modules.  
|                                                                  | • Encourage students to participate as an optional learning experience.  |
| Blended learning (Dine in or takeaway)                             | • Ask students to BYOD or schedule a classroom with designated computers.  
|                                                                  | • Provide an integrated learning experience by designing your learning activity, tutorial or workshop to connect the online modules to your collaborative learning activities in the classroom.  
|                                                                  | • Personalise the student experience by leveraging the personal skill-building plan within the modules.  |
| Pick and mix (Buffet)                                              | • Select one or more modules for inclusion in a course, e.g. preparation for Professional Experience, health and physical education, integrating technology / information communication technology.  
|                                                                  | • Select a specific topic within a module that might complement a learning experience in one week of a course.  |
| Holistic approach (Banquet)                                        | • Embed the modules into a learning management system and structure as a compulsory component of a course.  
|                                                                  | • Students work through personalised plan within or outside of classes.  
|                                                                  | • Printed toolkit can be used to bring to class for peer-to-peer discussions.  
|                                                                  | • Responses to scenarios in the modules can form the basis of a learning activity and encourage the creation of more scenarios.  |

As well as delivering the Implementation Guidelines as promised in the project proposal, the team also developed additional materials to increase the useability and accessibility of the BRiTE modules to teacher educators. These include a quick reference guide, overviewing the topics and themes for each module, key learning activities, resources embedded (videos and downloadable information) and connections to APST, ACARA and EYLF (see Appendix D). Furthermore, a dedicated page on the BRiTE website to provide assistance for teacher educators has been built [https://www.brite.edu.au/for-teacher-educators#moodle](https://www.brite.edu.au/for-teacher-educators#moodle). The page includes:

- Links to download the Implementation Guidelines and Quick Reference Guide.
- A BRiTE framework overview showing alignment of modules to themes from the literature and recommendations for teacher education.
- Frequently Asked Questions (FAQs) and answers about using BRiTE in teacher education.
- A widget for embedding the BRiTE modules in Learning Management Systems, such as Blackboard and Moodle, and instructions showing how to embed the widget.
3: Project outputs and findings

3.1 Outputs

The key deliverable was the BRiTE modules for Building Resilience in Teacher Education. There were four modules proposed, each including clear learning outcomes, a case or scenario relating to the APST, structured authentic learning activities involving reflection, and problem solving. Suggestions for implementation were also to be developed.

The BRiTE project has not only achieved these outputs but has gone beyond the original proposition in terms of scope, number of modules and online design. Five modules have been developed with innovative design that is unique in the field. A range of resources to support teacher educators using the modules has also been developed, as described below.

BRiTE learning modules

The major output from this project is the learning modules available at the BRiTE website (www.brite.edu.au). As the module development process unfolded, the team identified a need for users to share the project’s conceptual understanding of resilience, hence the additional module in the final design. As shown in the BRiTE framework (Table 2), the five online interactive learning modules address the following:

- Building resilience: What is resilience and why is it important for teachers?
- Relationships: Building and maintaining relationships
- Wellbeing: Self-care, motivation and managing worklife balance
- Taking initiative: Problem solving, ongoing professional learning and communicating effectively
- Emotions: Emotional awareness, management and optimism.

Furthermore, the team agreed that the modules should contain a range of learning experiences beyond those originally proposed. As a result, each module contains a self-reflection quiz, information about skills and strategies, tips, videos, scenarios where skills can be applied, a ‘What do the experts say?’ section (summarising latest research) and connections to the APST at the graduate level.

Another issue discussed at length was that of personalising the modules. Not wanting the modules to become purely an avenue to provide information, the project team sought to consider innovative ways they could make the modules interactive and personalised. Web designers were crucially important in this regard as they were highly responsive to our thinking, and innovative in their suggestions and the final output. As a result the modules are personalised, so users can, for example, build their own toolkit, record their learning, ‘pin’ items for future reference and download the toolkit for future reflection.

Resources for teacher educators

Throughout the project, interaction with teacher educators through the Advisory Group and at dissemination activities helped the team consider the most appropriate resources for teacher educators. The intention was to develop support resources that could be easily
accessed, and would have a high degree of useability for the intended audience. Implementation Guidelines were developed and these are available as a hard copy (distributed at dissemination events) and also a PDF download from the website. To complement these guidelines, a Quick Reference Guide and the BRiTE Framework as a PDF were developed. The Quick Reference Guide gives an overview of each module, providing details about learning activities, resources embedded, and links to curriculum and standards. In consultation with the web designers, a specific page for teacher educators was also added to the BRiTE website (https://www.brite.edu.au/for-teacher-educators) where information is ready and available with no login required. Finally, the path through the modules for those signing in as teacher educators has been altered, so teacher educators can easily access particular pages, without having to work through previous pages of the module.

**Resources for users**

The BRiTE modules are the key output for users; however, the final output goes beyond the original intention. Specifically, the modules are interactive and personalised, providing a learning experience involving reflection, understanding and application of strategies. The modules can be accessed as required and can be revisited at any time, so that users are not confined to completion in a defined time frame. Users can also download their personal toolkit and receive a certificate after completing all modules. Links to further resources provide information to follow up where appropriate.

**Academic publications**

Academic publications are also an important output for this project. At the time of writing this report, the development of the BRiTE framework has been published (Mansfield, Beltman, Broadley & Weatherby-Fell, 2016) and a chapter will appear in a forthcoming book (Mansfield, Beltman, Weatherby-Fell & Broadley, in press) entitled *Teacher Education - Innovation, Interventions and Impact* (Eds R. Brandenberg, S. McDonough, J. Burke, & S. White). Another book chapter is in preparation (Beltman, Wosnitza, Mansfield, Broadley & Weatherby-Fell, in preparation) to be published in *Resilience in Education: Concepts, contexts and connections* (Eds. Wosnitza, Piexoto, Beltman & Mansfield). Two further publications are in the planning stage. Two team members were also invited to publish in a Special Issue of School Psychology International (Beltman, Mansfield & Harris, 2016). One team member has written a book chapter regarding teacher resilience for an educational text (Beltman, 2015).

**Factors critical for project success**

**Project team**

The project team was strategically developed around the expertise needed for project success and with individuals playing key roles for specific aspects of the project. All team members had worked as teacher educators (and three as school teachers) and so understood the challenges of the profession and of preparing future generations of teachers. One team member had worked as a school psychologist. The team members had complementary areas of expertise, enabling individuals to ‘lead’ particular aspects of the project, while supporting one another in ongoing project tasks.
The relationship between team members was also important for success. As one team member was not from WA, an early face-to-face ‘start-up’ meeting provided a critical opportunity for project team members to get to know each other and build a detailed collaborative plan for the project. As the project progressed, regular Skype meetings became critical to maintaining project momentum, promoting positive working relationships, having a shared vision-in-action for the project, and maximising productivity. The team also maximised opportunities for face-to-face meetings to coincide with dissemination events at two conferences. It was also important to keep open communication about roles and responsibilities and be flexible where needed. The role of the Project Leader was crucial throughout the project but particularly in relationship to the team cohesion. The leader was able to be flexible and creative, but also to maintain and communicate a clear vision of the end point of the project and a focus on achieving the highest standards possible within budgetary and time constraints.

The Project Evaluator also participated in some project meetings offering insights about project progress and suggestions for maximising participation and dissemination. Adopting the role of critical friend, the Project Evaluator contributed to the project success. The Evaluation Report is available at Appendix H. Strong project management was also important for project success, ensuring milestones were met on time and within budget. The Project Manager also provided strategic and just-in-time support throughout the project.

Access to stakeholders
Project success was also hinged on access to a range of stakeholders who were known to team members through personal and professional networks. Stakeholders formed advisory and reference groups with local, national and international representation (as shown in Table 1). The international Reference Group members enabled an international perspective on the project activities and module development and shared their expertise generously. Advisory Group members shared local expertise and played a critical role in dissemination and spreading the word about the project.

Access to a wide range of stakeholders also made possible module trials with potential BRiTE users. Holding trials with Reference and Advisory Groups, teacher educators (through the ATEA network) and cohorts of students from three universities enabled multiple perspectives to inform module development. The trials contributed to development of module content and online design, especially given varying levels of expertise with online learning.

The flexibility and opportunistic thinking of project team members also increased access to stakeholders and wider dissemination. Taking advantage of informal, unplanned events and conversations to promote the project and engage more people through the BRiTE Community contributed positively to project success.

Web designers
The web design was one of the most critical aspects of the project. The project team sought web designers who had previous experience in designing interactive and personalised online resources in the higher education sector. The web designers from Zetatech were flexible, innovative and responsive to project needs. Furthermore, they understood the vision of the
project and the pedagogy underpinning the module design. At times, their suggestions were beyond what the team thought possible, and their method of working closely with the team enhanced the project considerably.

Challenges experienced and lessons learned

The main challenge in this project was that it became much bigger than originally intended. In part, this was due to the findings from the Environmental Scan in Phase 1 and also due to developing a shared vision of the online design with the web designers. It became evident that five modules rather than four were required, and that the range of online activities and resources could be considerably better than had previously been envisioned. Overcoming this challenge increased the workload for the project team, particularly during Phase 2; however, the result has exceeded our original expectations.

Changes in the academic roles of team members when universities were undergoing restructuring and changes in leadership was also challenging at times. All team members, as senior academics, held a high level of administrative responsibilities in their universities. The period of the project saw many changes across the higher education sector and led to increasing pressures and responsibilities not only for the project team but also for the Advisory Group. Managing these challenges meant being flexible and also having team members who could and were prepared to take on extra tasks.

A broader challenge in conducting research with university students is identifying ways to maintain contact once students graduate. In hindsight, it would have been advantageous to ask participants to give a personal email address, rather than a university email, or provide an alternative way they could be contacted in the future.

4: Project impact and dissemination

4.1 Project impact

The BRiTE project is a transition project and, as such, an impact plan did not form part of the original proposal. The team, however, have considered the impact of the project in light of recent Office for Learning and Teaching guidelines, particularly the Impact Management Planning and Evaluation Ladder framework (Hinton, 2014).

The BRiTE project has been successful in advancing the team members’ knowledge of teacher resilience, online learning and effective online practices in teacher education. The two completed publications, one under review and those in preparation are also important for career progression and communicating the project findings and resources to a wider national and international academic community. In addition, invitations for international presentations, invitations to publish in Special Issues of international peer-reviewed journals (Beltman, Mansfield & Harris, 2016) and to co-edit a book (Wosnitza, Piexoto, Beltman & Mansfield) and development of joint symposia at national and international conferences have occurred as a result of the project.
Perceived short-term impact for immediate students participating in the pilot evaluation in 2014 was generally positive. Participants responded favourably to evaluation questions about the extent to which the modules helped them develop knowledge and skills (mean = 4), whether they would use content in Professional Experience (mean = 4) and future teaching careers (mean = 4.2), and whether they would refer to the modules in future (mean = 3.9). Gathering longitudinal data to monitor impact over a longer period of time is an avenue for future research. Beyond the pilot implementation in 2014, pre-service teachers in 2015 continue to find the modules useful, as demonstrated by the following unsolicited feedback: ‘Loved doing these modules ... some great information and ideas to think about ... thank you’ (pre-service teacher, email communication, 14 April 2015).

Another indicator of impact is the number and location of users of the BRiTE modules since they became available in September 2014. By strategically spreading the word at local, national and international events, the website is receiving an increasing amount of traffic. Through the use of Google Analytics, the team has been able to obtain comprehensive statistics regarding the visitors to the webpages of the modules. Between 1 October 2014, and 1 September 2015, there have been a total of 4684 visitors to the site (Appendix E), with 35.3 per cent of these being return visitors. An update on 1 April 2016, showed 8,182 users, with 38.8% being returning users. This shows the increasing use of the modules, with users nearly doubling in number in a 7 month period. Of the visitors, the majority (64.75 per cent) come from Australia, with other users from the United States, Germany, China, Russia, Japan, the United Kingdom, Portugal and Brazil. More nuanced user data showing demographics of logged-in users was also available from the BRiTE website. This data showed that pre-service teachers at participating institutions as well as 14 other Australian universities have engaged with the modules in 2015 (as of April 2016). Website data also shows that pre-service teachers from universities in Germany, UK and USA have accessed the modules.

Maximising opportunities for dissemination also meant that the BRiTE modules have attracted interest from other universities and a range of professional organisations, suggesting narrow opportunistic adoption. Website data show users from the Department of Education, the Hunter Institute of Mental Health, AITSL, Teach for Australia, and the Board of Studies Teaching and Educational Standards, NSW. Users with a variety of roles have also accessed the modules, including pre-service teachers, teacher educators, teachers, psychologists, policy officers, educational consultants, academic development managers, career consultants, curriculum managers, professional learning officers, programmers, school psychologists and university professors. Not all users appear to be in the field of education, as nurse educators and web developers have also accessed the modules. This suggests that the modules may have an impact beyond the educational sector.

Narrow systemic adoption can be seen at participating institutions. For example, in the School of Education at Murdoch University, BRiTE modules have been embedded in Professional Experience units starting in 2015. Students will engage in modules prior to Professional Experience and reflect on the module learning in light of experiences afterwards. Each module is aligned with a particular Professional Experience unit. It is hoped that embedding the modules in this way will contribute to sustainable impact of the modules over time. Similarly, at Curtin University those working with pre-service teachers to
prepare them for their school placements have embraced the modules. For example, in a revised third-year unit for primary pre-service teachers, students will need to complete all of the modules and put elements of their work in their electronic teaching portfolio. They will also need to provide their certificate of completion as evidence of professional learning. At the University of Wollongong, the modules have been embedded into a core academic subject within the Master of Teaching programs (primary and secondary). A recent ‘Overseas Professional Experience’ activity used the modules to support the students as they were immersed into unfamiliar cultures and school contexts. Further, subjects aligned with Professional Experience placements (in early years, primary education and secondary mathematics, science and physical and health education) are also introducing the modules to students and beginning the process of integrating them into the associated subjects across each program.

There is also evidence of broad opportunistic adoption with users from 17 different Australian universities logging in to the modules. Conversations with teacher educator colleagues also indicate further adoption will occur. Unsolicited feedback was received from an advisory group member who stated ‘it is obvious that this work is going to ‘go places’ and have ‘traction!’ (Advisory Group member, email communication, 16 February 2015)

Broad systemic adoption is ongoing. For example, the Department of Education, WA and the Catholic Education Office of WA have committed to using the BRiTE modules as part of their early career teacher induction programs. The BRiTE modules are aligned with the current focus of such programs.

It is the intention of the project team that the BRiTE modules be used as widely as possible in teacher education programs across Australia. Early indications are highly positive, with much interest and enthusiasm for the resource demonstrated thus far. The design of the modules appears to be unique in the higher education section. The positive feedback about the online design (see previous section) from a range of users suggests that the module design may have application beyond this project. In other ‘caring professions’ (for example, nursing) similar challenges and coping strategies may be experienced, and resources such as these may be used as a blueprint for the development of resources for other disciplines.

4.2 Dissemination

Dissemination has been an ongoing feature of this project since the early stages when the Reference and Advisory Groups were engaged. Inbuilt project design features ensured multiple dissemination and feedback points for module trials and opportunities to engage stakeholders and then provide feedback about how their suggestions were being used.

A range of printed resources to assist dissemination were developed, including three iterations of the project poster, two iterations of postcards (See Appendix F), regular newsletters and the Implementation Guidelines in PDF and hard copy. The postcards have been widely distributed to pre-service teachers and teacher educators at conferences, in university courses and at professional events. Soft copy resources have been distributed via email to all stakeholder groups and team members’ professional contacts nationally and internationally.
Formal dissemination events and invited presentations (Appendix G) such as presenting at conferences (n = 9), conducting workshops (n = 3), holding module launches (n = 3), were used, as well as opportunistic dissemination activities such as university open days, personal and professional networks, and within-university research presentations. Targeted conferences, for example the ATEA, have been important for dissemination, as indicated in this unsolicited feedback:

I love the BRITE resources, I have added the link on all my Moodle sites. I can see how we could adapt a similar concept to working with ICT [information and communication technologies]. (Teacher educator, email communication, 13 July 2015)

Links have also been posted on other online resources (for example, AITSL e-resource http://www.aitsl.edu.au/school-leadership-ecollection/search-the-school-leadership-ecollection?cr=AnyField!Contains!BRITE).

In the final stages of the project, the use of social media (including Facebook and Twitter) was increased to assist with dissemination strategies. Project team and Reference Group members used their existing professional and personal social media networks to share the BRITE website and information about the project. This method was considered to be a more effective social media strategy than creating new accounts where no existing network could be instantly leveraged. Terras (2012) reported significant spikes in downloads of research papers that correlate with blogging and tweeting about them through social media. The use of social media allows academics to rapidly share through large networks and communities, and the BRITE project team, through its extensive international networks and professional association connections, believes this will be a successful and cost-effective strategy to continue to attract users to the BRITE modules and increase the participation globally.

5: Conclusion

The BRITE project aimed to support the development of professional resilience in pre-service teachers by developing online learning modules. In doing so, five interactive online learning modules were developed, along with a range of resources to support implementation. Within the timeframe of the project, feedback from stakeholder groups was used to develop the modules with the resulting product being positively evaluated. Pre-service teachers are continuing to engage with the modules over a longer period of time, returning to the site on multiple occasions. Teacher educators in a number of universities are using the Implementation Guidelines, to inform how the modules are used in their courses.

This project is of benefit to the higher education sector in a number of ways. The modules demonstrate how an engaging online resource can be developed to raise awareness of skills and strategies for resilience in a specific professional context. The design of the resource is transferrable to other disciplines and contexts. The particular features of the online design (interactivity, personalisation, connection to research and the profession) are also transferrable to other online learning resources. The design-based research process, with
multiple trials with a range of stakeholder groups, may be useful for the design of future projects. Finally, engagement with national and international leaders in the field is beneficial for ‘big picture’ feedback and broad dissemination.

I am really impressed with the thinking that underpins the design of the project ... I liked the themes of the modules which address areas that WILL help trainee teachers and early career teachers to better understand the nature of teachers’ work and lives and, most importantly, how to survive and thrive in the reality of teaching. (International expert Reference Group member, email communication, 14 May 2015)

References


Beltman, S., Wosnitza, M., Mansfield, C.F., Broadley T., & Weatherby- Fell, N. *Using online modules to develop pre-service teachers’ capacity for resilience*. Manuscript in preparation.


Appendix A

Certification by Deputy Vice-Chancellor (or equivalent)

I certify that all parts of the final report for this OLT grant/fellowship (remove as appropriate) provide an accurate representation of the implementation, impact and findings of the project, and that the report is of publishable quality.

Name: .................................................................................................................. Date: 1/9/2015
# Module evaluation questions

For pre-service teacher participants:

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I found the content of this module interesting</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>2. I found the content of this module relevant</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>3. The content is written at a level appropriate to me</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>4. I enjoyed working through this module</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>5. This module helped me reflect on my knowledge and skills</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>6. This module helped raise awareness about skills I already have</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>7. This module helped me consider things I hadn't really thought about before</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>8. The overall design of the module is appealing and easy to read</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>9. The use of graphics in the module are appropriate</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>10. The module was easy to navigate</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>11. The information in the module is well organised</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>12. All links in the module work</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>13. I will refer to this module again in the future</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>14. I will use content from this module in my PEX</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>15. I will use content from this module in my teaching career</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>16. I will recommend this module to my friends</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>17. Approximately how long did it take you to complete this module?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Are there any comments you'd like to make about this module?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
For non pre-service teacher participants:

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. The content of this module will be useful for pre-service teachers</td>
<td>Strongly disagree – strongly agree</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The content of this module will be interesting for pre-service teachers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. The content of this module will be relevant for pre-service teachers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. The content is written at a level appropriate for pre-service teachers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. This module will help pre-service teachers reflect on their existing knowledge and skills</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. This module will help pre-service teachers develop knowledge and skills to build capacity for resilience</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. The overall design of the module is appealing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. The use of graphics and videos in the module are appropriate</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. The module was easy to navigate</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. The information in the module is well organised</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. I will refer pre-service teachers to this module</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. I will refer to the content in this module in my teaching</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. Approximately how long did it take you to complete this module? (enter hours and minutes)</td>
<td></td>
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<tr>
<td>14. How do you think this module could be used in teacher education programs? (open-ended question)</td>
<td></td>
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<tr>
<td>15. Are there any comments you’d like to make about this module? (open-ended question)</td>
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</tr>
</tbody>
</table>
The module provides some great strategies for pre-service teachers to learn to cope with the stressors of the profession, and hopefully these strategies will be carried forward well into their careers. The importance of this cannot be underestimated.

[Teacher Educator]

What is BRiTE?

The BRiTE project aims to help pre-service teachers build awareness of the skills and practices that will help facilitate resilience in their teaching career. Building on our previous work through the Keeping Cool project (www.keepingcool.edu.au), the BRiTE project provides an online resource and professional learning experience targeted at pre-service and early career teachers.

BRiTE contains 5 online interactive learning modules:

- **B**uilding resilience;
- **R**elationships;
- **W**ellbeing;
- **T**aking initiative; and
- **E**motions.

Throughout each module participants can take self-quizzes, learn about skills and strategies, view videos, apply skills to realistic situations, learn about what experts in the field have found and build their own personal toolkit. Each module is connected to the Australian Professional Standards for Teachers (www.aitsl.edu.au). The modules are freely available via the BRiTE website (www.brite.edu.au).

As well as being specifically targeted to the needs of pre-service and early career teachers, the BRiTE modules have also been developed as a resource for teacher educators and may be integrated into initial teacher education programs in a number of ways. This document provides a rationale and overview of the modules and includes guidelines for implementation in teacher education programs.

A good balance of theory, videos of personal experiences and practical advice. It is easy to navigate and the tips and advice is given in a supportive non-judgemental way.

[Teacher Educator]
Content of the BRiTE modules

**Module 1: B: Building resilience**
This module describes the conceptual underpinnings of teacher resilience that inform the BRiTE modules.

**Module 2: R: Relationships**
Module “R” explores how relationships are a critical part of the resilience process. Two key ideas are addressed: maintaining support networks (with friends and family, university colleagues, and social media networks) and building new relationships (with colleagues, mentor teacher, parents, working in teams and being in a new community).

**Module 3: I: Wellbeing**
The wellbeing module addresses the topic of self-care and the benefits of being mindful of and managing personal wellbeing effectively in and out of the classroom. The module offers tips and strategies for effectively managing personal wellbeing and maintaining career motivation. Three topics are covered in the module: personal wellbeing; work-life balance; and strategies for maintaining motivation.

**Module 4: T: Taking Initiative**
This module addresses the professional responsibility of teachers to develop autonomy and the ability to take initiative in their daily practice for effective classroom management and teaching, as well as taking long-term responsibility for their own professional development and effective interpersonal relationships with students, colleagues, peers, parents, and the wider community. Three topics are covered: problem solving; ongoing professional learning; and communicating effectively.

**Module 5: E: Emotions**
The emotions module continues the theme of effective self-management, with strategies and skills to assist in the development of emotion management. The module is organised into three topics: emotion awareness; managing emotions; and optimism.

What are the module design principles?

In developing the BRiTE modules, it was important to ensure they would be interoperable across different learning management systems. This has been achieved by hosting the modules in a secure, independent website environment, allowing teacher educators to embed the link via a widget to the modules within their existing course learning management system. Furthermore, each module is designed with the following principles.

**Personalised**
- Self-quiz
- Personalised skill building plan
- Create their own plan, ‘pin’ items for later reference
- Personalised tool kit

**Interactive**
- Reflection activities requiring user input
- Scenarios (what would you do?) where users can demonstrate their learning
- Offers feedback based on responses selected

**Grounded in the literature**
- Quotes from previous empirical research
- “What do the experts say?” (connecting to recent research relevant to the particular skill)
- Further resources

**Connected to the teaching profession**
- Explicit links to teaching standards and a range of professional resources
- Video links
- Further resources

It reminded me to take care of myself as well as the students … [and] helped me with ways to think about how I would manage stress and problem solving skills in the classroom.

(Pre-service Teacher)

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Dr Susan Beltman  s.beltman@curtin.edu.au
Dr Tania Broadley  t.broadley@curtin.edu.au
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Support for this publication has been provided by the Australian Government Office for Learning and Teaching. The views expressed in this publication do not necessarily reflect the views of the Australian Government Office for Learning and Teaching.
Have the modules been trialled?

In 2014 a pilot implementation was conducted with the aim of evaluating the content and online design of the modules.

Pre-service teachers (n=144), teacher educators and international experts (n=37) trialled the modules. The feedback from the pilot was positive from both cohorts and illustrative quotes appear throughout this document.

The modules are excellent... engaging, clear and very informative.

[Teacher Educator]

How might a teacher educator use the modules with pre-service teachers?

It has the capacity to be expanded... so if you were going to use it in a unit, you could add in ‘research’, and ‘further discussion’ questions as well.

[Teacher Educator]

Raising awareness (Appetizers)
- Introduce pre-service teachers to the modules within your class or your online resources.
- Provide the web address to the modules.
- Encourage students to participate as an optional learning experience.

Blended Learning (Dine in or takeaway)
- Ask students to BYOD or schedule a classroom with designated computers.
- Provide an integrated learning experience by designing your learning activity, tutorial or workshop to connect the online modules to your collaborative learning activities in the classroom.
- Personalise the student experience by leveraging the personal skill building plan within the modules.

Pick and Mix (Buffet)
- Select one or more modules for inclusion in your course. Eg. Preparation for professional experience, Health & PE, integrating technology/ICT.
- Select a specific topic within a module that might complement a learning experience in one week of your course.

Holistic Approach (Banquet)
- Embed the modules into your learning management system and structure as a compulsory component of your course.
- Students work through personalised plan within or outside of classes.
- Printed tool kit can be used to bring to class for peer to peer discussions.
- Responses to scenarios in the modules can form the basis of a learning activity and encourage the creation of more scenarios.

How does BRiTE link to Professional Standards and Frameworks?

Each module is connected to the Australian Professional Standards for Teachers, the Australian Curriculum and the Early Years Learning Framework (see over).

It allowed me to reflect on my own teaching practice, I will definitely be using this during my next Professional Experience placement and also in my future teaching career.

[Pre-service teacher]
While the modules have been developed primarily for the use of pre-service teachers, the content is highly recommended for professional learning opportunities with graduate, early career or in-service teachers. This might be offered through an online stand alone experience, blended into another professional learning program stand alone experience, or blended either in a face to face or online experience.

**Module B – Building resilience**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>What do you know about resilience?</td>
<td>Common myths, misconceptions and questions about resilience</td>
</tr>
<tr>
<td>Resilience in schools</td>
<td>Building resilience in your students</td>
</tr>
<tr>
<td>What makes a resilient teacher?</td>
<td>Quotes from graduating and early career teachers</td>
</tr>
<tr>
<td>The resilience process</td>
<td>Conceptual model underpinning BRiTE</td>
</tr>
<tr>
<td>Bouncing back / bouncing forward</td>
<td>Resilience is more than surviving / coping</td>
</tr>
<tr>
<td>Why BRiTE?</td>
<td>Overview of modules and connection to research</td>
</tr>
</tbody>
</table>

**Module R – Relationships**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintaining support networks</td>
<td>Friends and family; University colleagues; Support networks and social media</td>
</tr>
<tr>
<td>Building relationships in new environments</td>
<td>Relationships with new colleagues; Working with mentor teachers; Building relationships with students’ parents</td>
</tr>
</tbody>
</table>

**Module T – Taking initiative**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem solving</td>
<td>“Thinking on your feet”; Problem solving process; Help-seeking</td>
</tr>
<tr>
<td>Ongoing professional learning</td>
<td>A professional journey; Connecting with the profession; Goal setting</td>
</tr>
<tr>
<td>Communicating effectively</td>
<td>Effective listening; Communicating assertively; Setting boundaries</td>
</tr>
</tbody>
</table>

**Module E – Emotions**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing optimism</td>
<td>Seligman and the RADAR acronym; Humour</td>
</tr>
<tr>
<td>Managing emotions</td>
<td>Managing emotions; Classroom emotional climate; Don’t take it personally</td>
</tr>
<tr>
<td>Enhancing emotional awareness</td>
<td>Recoginsing emotions; Responding to emotions</td>
</tr>
</tbody>
</table>
## Module B: Building resilience

<table>
<thead>
<tr>
<th>Topics</th>
<th>Sub-topics</th>
<th>Learning activities</th>
<th>Embedded Resources</th>
<th>Links to APST, ACARA &amp; EYLF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Why does it matter?</td>
<td>True/False resilience myths with feedback and informed by the literature.</td>
<td><strong>Videos</strong></td>
<td>ACARA General Capabilities: self-awareness, self-management and social management</td>
</tr>
<tr>
<td></td>
<td>Resilience in schools</td>
<td>Add to your toolkit: <em>How do you define resilience? How would you describe a resilient teacher?</em></td>
<td>Building your child’s resilience (School A to Z, 2011)Module B: Building</td>
<td></td>
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<tr>
<td></td>
<td>Resilience for teachers</td>
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<td></td>
<td>What makes a resilient teacher?</td>
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<td>The resilience process</td>
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<tr>
<td></td>
<td>Why BRiTE?</td>
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## Module R: Relationships

<table>
<thead>
<tr>
<th>Topics</th>
<th>Sub-topics</th>
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<th>Embedded Resources</th>
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</tr>
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<tbody>
<tr>
<td>Maintaining support networks</td>
<td>Module Introduction</td>
<td>What are your current resources? (Self-quiz leading to personal plan for module progress)</td>
<td>Factsheets</td>
<td>APST Standard 7.3 Engage with parents/carers</td>
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<tr>
<td></td>
<td>Friends and family</td>
<td>Strategies for maintaining support networks</td>
<td>“Brighter futures: Engaging with Aboriginal Children and Families”. (NSW Department of Community Services, 2008)</td>
<td>Standard 7.4 Engage with professional teaching networks and broader communities</td>
</tr>
<tr>
<td></td>
<td>University colleagues</td>
<td>What would you do? I have friends I haven’t seen for weeks.</td>
<td>Videos</td>
<td>Standard 3.7 Engage parents/carers in the educative process</td>
</tr>
<tr>
<td></td>
<td>Support networks and social media</td>
<td>Add to your toolkit: What are your top 3 strategies for maintaining support networks? How will you implement these?</td>
<td>• “Connecting, networking, learning”: How has social media influenced your professional practice (Teacher Feature, AITSL, 2012)</td>
<td>ACARA General Capabilities: self-awareness, self-management and social management</td>
</tr>
<tr>
<td>Building new relationships</td>
<td>Relationships with new colleagues</td>
<td>Strategies for building relationships in new environments</td>
<td>“Professional conversation makes all the difference”: How do your colleagues impact on your teaching? (Teacher Feature, AITSL, 2012)</td>
<td>EYLF Principle 1. Secure, respectful and reciprocal relationships</td>
</tr>
<tr>
<td></td>
<td>And when you are qualified ...</td>
<td>Add to your toolkit: Thinking about the next time you are in a new school environment, what do you think are some useful strategies for building new relationships? What actions will you need to take to implement these</td>
<td>• “Helping you become a better teacher”: What’s the most important advice you could give to a beginning teacher? (Teacher Feature, AITSL, 2012)</td>
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<tr>
<td></td>
<td>Getting along with others - teamwork</td>
<td></td>
<td>• “Professional conversation makes all the difference”: How do your colleagues impact on your teaching? (Teacher Feature, AITSL, 2012)</td>
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<td></td>
<td>Relationships with parents</td>
<td></td>
<td>• “Two-way communication”: Illustration of Practice (AITSL, 2012)</td>
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<td></td>
<td>Positive communication with parents</td>
<td></td>
<td>• “Open and honest communication: The Yarn meeting” Illustration of Practice (AITSL, 2012)</td>
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<td></td>
<td>Being in a new community</td>
<td></td>
<td>• “Responding to parent and carer questions – the S-I-B model” (KidsMatter, 2014)</td>
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<td></td>
<td></td>
<td></td>
<td>• “Sharing concerns with parents” (MindMatters Australia, 2015)</td>
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<td></td>
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<td></td>
<td>• “Build that relationship right from the start”: Teacher Feature (AITSL, 2013)</td>
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<td></td>
<td></td>
<td></td>
<td>• “The best thing is that sense of community”: Teacher Feature (AITSL, 2013)</td>
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## Module i: Wellbeing

<table>
<thead>
<tr>
<th>Topics</th>
<th>Sub-topics</th>
<th>Learning activities</th>
<th>Embedded Resources</th>
<th>Links to APST, ACARA &amp; EYLF</th>
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<tr>
<td>Module Introduction</td>
<td></td>
<td>What are your current resources? (Self-quiz leading to personal plan for module progress)</td>
<td>Factsheets</td>
<td>APST Standard 6.1 Identify and plan professional learning needs</td>
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<tr>
<td>Personal wellbeing</td>
<td>Personal wellbeing and mental health</td>
<td>Strategies for supporting and maintaining personal wellbeing.</td>
<td>Wellbeing and self-care (ResponseAbility, 2014)</td>
<td>Standard 4.2 Manage classroom activities</td>
</tr>
<tr>
<td></td>
<td>Responding to stress</td>
<td>What would you do? I am feeling so stressed out.</td>
<td>Looking after yourself and others (ResponseAbility, 2014)</td>
<td>ACARA General Capabilities: self awareness, self-management and social management</td>
</tr>
<tr>
<td></td>
<td>Healthy living</td>
<td>Add to your toolkit: What are your top 3 strategies for maintaining your personal wellbeing now? How will you implement these?</td>
<td>Videos</td>
<td>EYLF Principle 3. High expectations and equity</td>
</tr>
<tr>
<td>Work-life balance</td>
<td>Maintaining other interests</td>
<td>Strategies for maintaining work life balance</td>
<td>“What is mental health” (Kidsmatter, 2014)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time management</td>
<td>What would you do? All I ever seem to do is work.</td>
<td>“Why is mental health important?” (Kidsmatter, 2014)</td>
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<tr>
<td></td>
<td></td>
<td>Add to your toolkit: What do you think are some useful strategies for managing your time and keeping a balance between your work and non-work life?</td>
<td>“You need to look after your health and wellbeing”: Teacher Feature (AITSL, 2012)</td>
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<tr>
<td>Maintaining motivation</td>
<td>Reasons for becoming a teacher</td>
<td>Optimistic thinking activity.</td>
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<tr>
<td></td>
<td>Optimistic thinking</td>
<td>What would you do? How will I make it to the end of term?</td>
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<td></td>
<td>Persistence and self-efficacy</td>
<td>Strategies for maintaining motivation.</td>
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<td></td>
<td>Add to your toolkit: What are your top 3 ways for maintaining your motivation for teaching? How will you implement these?</td>
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## Module T: Taking Initiative

<table>
<thead>
<tr>
<th>Topics</th>
<th>Sub-topics</th>
<th>Learning activities</th>
<th>Embedded Resources</th>
<th>Links to APST, ACARA &amp; EYLF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module Introduction</td>
<td>What are your current resources? (Self-quiz leading to personal plan for module progress)</td>
<td>Videos</td>
<td>APST Standard 6. Engage in professional learning</td>
<td></td>
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<tr>
<td>Problem solving</td>
<td>Thinking on your feet</td>
<td>Strategies for problem solving</td>
<td>“Teaching is not about perfection, it’s about reflection”: Teacher Feature (AITSL, 2012)</td>
<td></td>
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<tr>
<td></td>
<td>Problem solving processes</td>
<td>What would you do? <em>Not quite picture-perfect …</em></td>
<td>“In the beginning I questioned my ability…”: Teacher Feature (AITSL, 2012)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Help seeking</td>
<td>Add to your toolkit: <em>What are your top 3 strategies for problem solving? How will you implement these?</em></td>
<td>“Teachers Make a Difference”: (NSW Teachers Federation, 2014)</td>
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<tr>
<td></td>
<td>Ongoing professional learning</td>
<td>Strategies for ongoing professional learning</td>
<td>“A professional learning focused school”: St Paul’s School (AITSL, 2012)</td>
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<tr>
<td></td>
<td>On a professional journey …</td>
<td>SMART goals</td>
<td>“One step at a time” (CartooningGenius, 2013)</td>
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<td></td>
<td>Connecting with the profession</td>
<td>Goal setting activity</td>
<td>“Learn as much as I can”: Teacher Feature (AITSL, 2012)</td>
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<tr>
<td></td>
<td>Goal setting</td>
<td>What would you do? <em>My best friends, the APST</em></td>
<td>“Hawa’s Story” (Adnewsaust, 2014)</td>
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<tr>
<td></td>
<td>Add to your toolkit: <em>Which skills do you think are most important in developing your own professional learning goals? Which strategies will you use?</em></td>
<td>“The Graduate” (CBAustralia, 2014)</td>
<td></td>
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</tr>
<tr>
<td>Communicating effectively</td>
<td>Effective listening</td>
<td>Communication skills for teachers.</td>
<td>ACARA General Capabilities: self-awareness, self-management and social management</td>
<td></td>
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<tr>
<td></td>
<td>Communicating assertively</td>
<td>Effective listening skills, Communication styles activity.</td>
<td>EYLF Principle 2. Partnerships</td>
<td></td>
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<tr>
<td></td>
<td>Getting involved and setting boundaries</td>
<td>What would you do? <em>I thought this was my room …</em></td>
<td>Principle 5. Ongoing learning and reflective practice</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Add to your toolkit: <em>Which communication skills do you think are going to be most important for you when you are in a new school environment?</em></td>
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## Module E: Emotions

<table>
<thead>
<tr>
<th>Topics</th>
<th>Sub-topics</th>
<th>Learning activities</th>
<th>Embedded Resources</th>
<th>Links to APST, ACARA &amp; EYLF</th>
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</thead>
<tbody>
<tr>
<td>What is an emotionally competent teacher</td>
<td></td>
<td>Why discuss emotion in teaching? Reflection: Visualisation of own experience as a student What are some characteristics of emotionally competent teachers? Self-quiz: Your current resources</td>
<td>Videos</td>
<td>APST Standard 4. Create and maintain supportive and safe learning environments</td>
</tr>
<tr>
<td>Developing optimism</td>
<td>Optimism</td>
<td>Interactive activity: Optimistic and pessimistic responses to situations Using the RADAR acronym for developing optimism Add to your toolkit: <em>How can optimism help you in your teaching career?</em></td>
<td>Social-Emotional Learning: Developing Student and Teacher Resilience (The New Teacher Centre, 2012)</td>
<td>ACARA General Capabilities: self-awareness, self-management and social management</td>
</tr>
<tr>
<td>Enhancing emotional awareness</td>
<td>Enhancing emotional awareness Responding to emotions</td>
<td>Case study: Alfie’s morning Reflection: What has happened here with regard to emotions? Interactive activities: • Placing Alfie’s teacher on the Emotion • Awareness Gradient • True/False with feedback Reflection: How could Alfie’s teacher’s behaviour have resulted in better outcomes for all concerned? What might he have done? Add to your toolkit: <em>What have you learnt from this section that will be particularly relevant to you in the classroom?</em></td>
<td></td>
<td>EYLF Principle 1. Secure, respectful and reciprocal relationships</td>
</tr>
<tr>
<td>Managing emotions</td>
<td>Practical ways to manage emotions Managing emotions The classroom emotional climate Don’t take it personally …</td>
<td>Using A-C-T (Awareness, Check thoughts, Try alternatives) to manage emotions Managing emotions interactive activity The classroom emotional climate interactive activity Add to your toolkit: <em>Knowing what you do about yourself, what are your top 3 strategies for managing your emotions when you feel your emotions becoming heightened?</em></td>
<td></td>
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</tr>
</tbody>
</table>
## Audience Overview

You are using a filtered view, which may cause your Users count to be inaccurate. [Learn more]

### Overview

- **All Sessions**: 100.00%

### Users vs. Sessions

![Graph showing users and sessions over time]

- **Sessions**: 7,327
- **Users**: 4,684
- **Page Views**: 56,111
- **Pages/Session**: 7.66
- **Avg. Session Duration**: 00:08:48
- **Bounce Rate**: 51.41%
- **% New Sessions**: 63.56%

### Country Sessions % Sessions

<table>
<thead>
<tr>
<th>Country</th>
<th>Sessions</th>
<th>% Sessions</th>
</tr>
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<tbody>
<tr>
<td>Australia</td>
<td>4,427</td>
<td>60.42%</td>
</tr>
<tr>
<td>United States</td>
<td>1,061</td>
<td>14.48%</td>
</tr>
<tr>
<td>(not set)</td>
<td>594</td>
<td>8.11%</td>
</tr>
<tr>
<td>Germany</td>
<td>146</td>
<td>1.99%</td>
</tr>
<tr>
<td>China</td>
<td>127</td>
<td>1.73%</td>
</tr>
<tr>
<td>Russia</td>
<td>110</td>
<td>1.50%</td>
</tr>
<tr>
<td>Japan</td>
<td>77</td>
<td>1.05%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>71</td>
<td>0.97%</td>
</tr>
<tr>
<td>Portugal</td>
<td>58</td>
<td>0.79%</td>
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<tr>
<td>Brazil</td>
<td>57</td>
<td>0.78%</td>
</tr>
</tbody>
</table>

© 2015 Google
What is BRiTE? The aim of this program is to help pre-service teachers build their awareness of the skills and practices that will help facilitate resilience in their teaching career. Throughout each module users can take quizzes, learn about skills and strategies, view videos, apply skills to realistic situations, learn about what experts in the field have found and build their own personal toolkit. PDF resources are available to download and print.

“The modules were great, really comprehensive” (pre-service teacher)

Each module has a range of learning activities involving reflection and problem solving.

The modules are:
- interactive (with user scenarios, ‘what would you do’ situations, and self-reflection points);
- personalised (you can ‘pin’ items and create your own BRiTE toolkit);
- informed by research (lets you know what experts in the field say);
- connected to the Australian Professional Standards for Teachers, Australian Curriculum, Early Years Learning Framework and other professional development materials.

“It was very user friendly, easy to navigate and logically set out” (pre-service teacher)
Appendix G

Dissemination events

Conference presentations


Invited presentations


**Poster presentations**

- 14\(^{th}\) November, 2013. WAND (Western Australian Network for Dissemination) Sharing Day, Notre Dame University.
- 8\(^{th}\) October, 2014. WAND (Western Australian Network for Dissemination) Sharing Day, Curtin University.

**Workshops**

- 1\(^{st}\) August, 2014. BRiTE Seminar with Advisory and Reference group members, Murdoch University, Perth.
- 4\(^{th}\) August, 2014. BRiTE workshop with pre-service teachers, University of Wollongong, NSW.

**Module Launches**

- 16\(^{th}\) February, 2015. Murdoch University, Perth.
- 5\(^{th}\) May, 2015. University of Wollongong, NSW.
- 9\(^{th}\) July, 2015. Australian Teacher Education Association (ATEA), Charles Darwin University, NT.
Final Evaluation Report

BRiTE

*Keeping Cool by Building Resilience in Teacher Education*

(ID13-2924)

Project Evaluator
Dr Judith MacCallum
Content

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Role of the Evaluator 3
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Summary

The BRiTE project team has designed and created a series of online modules to develop pre-service teachers’ capacity for professional resilience. Lead by Caroline Mansfield (Murdoch University), the multidisciplinary team includes Susan Beltman and Tania Broadly (Curtin University) and Noelene Weatherby-Fell (University of Wollongong) with Denyse Macnish (Project Manager, Murdoch University) and website designers Claire and Ron Botman (Zetatech).

The website www.brite.edu.au provides access to the modules through a personalised Login.

The aim of the summative evaluation is to provide the OLT with a Final Evaluation Report that makes judgements about the merit and worth of the project, in terms of:

- Outcome evaluation: To what extent did the project accomplish its aims, deliverables and outcomes?
- Process evaluation: To what extent was the project implemented as planned?
- Sustainability evaluation: To what degree can the work and achievements of the project be considered scalable, sustainable or transferable?

The outcome evaluation found that the project achieved the five intended outcomes and in some areas exceeded what was planned. The project team is to be congratulated on creating the BRiTE modules, which are an extraordinary resource. The evaluation evidence demonstrates the excellent quality of the interactive web-based modules in terms of content and design, and the very strong interest generated in the sector regarding the modules, their development and early implementation. The survey evidence demonstrates impact of the modules on the awareness of resilience and conscious use of resilience building strategies of pre-service teachers who were part of the pilot implementation.

In terms of process, the evaluation found that the project’s success is due to the dedication and leadership of the project leader, the willingness of the web designers to work with the team to create an innovative resource beyond the original scope, and the way the team learned how to work together and overcome time constraints and distance.

The strong interest in the project by the teacher education sector, and evidence from website data and feedback demonstrates that module use is scalable for broad systemic adoption to impact on teacher wellbeing and retention. Students and/ or teacher educators from 17 of the 49 Australian institutions on the Australian Institute for Teaching and School Leadership (AISTL) accredited program list (http://www.aitsl.edu.au/initial-teacher-education/accredited-programs-list) had engaged with the modules by 28 July 2015. The interest beyond the original target group points to the modules being transferable to other settings where professional resilience is valued. This would be the work of other funded projects. It is also likely from the interest in the module features that the design principles may be transferable to the development of other online resources.

The project team has taken account of feedback from Reference and Advisory group members, participants and the evaluator at every stage in the project. Therefore there are only two recommendations for further development.

- Currently there is no invitation to teacher educators or link to the resource page from the Main webpage. The team may review this feature as wider implementation proceeds.
• The module design feature of ‘Connection to the Profession’ was more highly regarded by teacher educators than by pre-service teachers possibly because educators were thinking through how to use the modules. If this is an important design feature, the team may consider if and how this feature might be made more salient for pre-service teachers.

There is one recommendation for future projects that involve innovation and an iterative development process.

• Consult with web designers in the conceptualisation of the proposal to ensure that the project incorporates sufficient team release time, length of project time and funding for online resource development.

This was an ambitious project. OLT has funded the development of an extraordinary resource, and the product and knowledge gained has potential to build the capacity for professional resilience of pre-service teachers, teachers and other professionals, and guide future online resource design.
Background

The BRiTE project team has designed and created a series of online modules to develop pre-service teachers’ capacity for professional resilience. BRiTE, funded by the Office for Learning and Teaching (OLT), has been built on the successful ALTC project Keeping Cool (2012), which demonstrated the need for resilience resources to be available through the website. The current project is set in the context of a national focus on teacher quality and changing policies on teacher education accreditation requirements and teacher professional standards, and recommendations for entry to teacher education.

The BRiTE team, led by Caroline Mansfield (Murdoch University), includes Susan Beltman (Curtin University), who with Caroline was a member of the earlier project team, together with Tania Broadley (Curtin University), Noeline Weatherby-Fell (University of Wollongong) and Denyse Macnish (Project Manager, Murdoch University). The team engaged website designers Claire and Ron Botman (Zetatech) to work with them to build the modules and research assistants to work on various project tasks. In addition, Reference and Advisory Group members were drawn from a pool of national and international experts, and the team has links to a European project ENTREÉ with a related focus. A BRiTE community has formed from individuals attending dissemination activities and others expressing interest in the project.

The website www.brite.edu.au provides access to the modules through a personalised Login.

Purpose of the Evaluation

The summative evaluation is to provide the OLT with a Final Evaluation Report that makes judgements about the merit and worth of the project, in terms of:

• Outcome evaluation: To what extent did the project accomplish its aims, deliverables and outcomes?
• Process evaluation: To what extent was the project implemented as planned?
• Sustainability evaluation: To what degree can the work and achievements of the project be considered scalable, sustainable or transferable?

The following objectives guided the summative evaluation process:

1. Extent to which the project has achieved its intended outcomes;
2. Strengths and challenges of the project management process;
3. Utility of the deliverables from the project for the relevant stakeholders; and
4. Success of the dissemination strategies.

The project team was also interested in the potential of the project to meet the OLT’s performance indicator "to change curriculum development, learning and teaching practices and/or teaching management processes in one or more institutions outside the project team”.

Role of the Evaluator

The project team identified the role of the evaluator as providing a partnership important to the success of the project. The evaluator was able to observe the project activities and provide ongoing feedback, as well as provide an external evaluation to determine the extent to which BRiTE has achieved the intended outcomes.
As a critical friend the evaluator was invited to meetings and workshops as needed and provided ongoing feedback to the project team.

**Method**

The evaluation used a mixed methods approach to generating data (Creswell, 2015). Data sources included project documents (including the Pilot Implementation Report, 2014), evaluator’s field notes, BRI TE website data, Google Analytics, 2015 survey of pilot pre-service teacher participants, and observations and responses of those involved in the project (Project team, Reference group, Advisory group and BRI TE community members). Ethics approval was gained for the evaluator to access data and to conduct the follow-up survey of pilot implementation pre-service teacher participants in 2015.

Thus the evaluation accessed a range of participants enabling triangulation of evidence and examination of convergence and inconsistencies (Mathison, 1988).

**Project documents.** These included meeting agendas and minutes, design documents, contact lists, dissemination activities and feedback information. They were available through the project Dropbox and emails from project team members and project manager.

**BRI TE website data.** The datasheets provided registration information of modules users, a record of module items pinned and evidence of interaction within modules, and evaluation data for those completing evaluation questions post pilot implementation. The database was obtained from the web designer.

**Feedback on outcomes and processes.** Feedback related to the summative evaluation questions was requested from a sample of people associated with the project. The open ended questions were sent through email (see example in Appendix A. Project team members and web designer (5), Reference group (3), Advisory group (3) and BRI TE community members (4) responded. The response rate was 54%.

**Google analytics.** Monthly summaries of module visitors provided information on visitors to the BRI TE website, number of sessions, pages accessed and country of origin. The summaries were obtained from a project team member.

**Module users.** Between 26 September 2014 and 28 July 2015 there were 525 unique logins to the BRI TE website.\(^1\) As the project team has requested those logging in to provide some demographic information, it is possible to provide an overview of module users. Of the 525 users, most are Australian, but other countries represented are Germany (4), Portugal (3), Czech Republic (2), Greece, Ireland, USA, Singapore and Norway. Seventy-one percent identified themselves as Female, 22% as Male and 7% left blank. Users indicated their ‘Role’ as Pre-service teacher (371), Teacher educator (39), Teacher (23), Reference or Advisory group (23), another specific role (e.g. curriculum manager, policy officer, professor, psychologist, web developers) (22) and project team and project web designers (13), or no response (34). They could also indicate their institution. Australian institutions included Murdoch University (163), University of Wollongong (138), Darwin University (41), Curtin University (22), Charles Monash University (7), SCU (5), UNDA (3), ECU (3), UWA (2), Flinders University (2), UNSW (2), Australian Catholic University, Batchelor Institute of Indigenous

\[^1\] This number doesn’t include participants in module trials conducted prior to September 2014, and although many may have returned to the modules, some may not have, and are hence not recorded.
Tertiary Education, CSU, UniSA, USQ, and UTS, as well as institutions in other parts of the world.

Of the 525 logins on the website datasheet at 28 July 2015, 53 were ‘pending’ which indicated that the user had registered but not continued at that time. Some successfully logged in at another time. There were 13 team member logins for testing the site, so the total number of independent participants who entered the modules between 26 September 2014 and 28 July 2015 were 459. This number is used for analyses.

Pilot Implementation pre-service teacher participants who completed survey 2015. Pre-service teachers who participated in the pilot implementation in October – November 2014 were emailed in July 2015 and invited to participate in an online survey about the utility of the modules and if and how they had used them in the intervening months. See Appendix B for questions. Twelve students responded and they were representative of the original participants of the pilot in terms of gender (83%) and university attended (e.g. Murdoch University, 40%).

Pre-service teachers who completed the modules and pilot evaluation questions post pilot. There were 11 pre-service teachers from a range of universities who completed the modules and the evaluation questions of their own volition.

The evidence is reported and discussed for each of the main evaluation questions in turn.

Outcome Evaluation

• To what extent did the project accomplish its aims, deliverables and outcomes?

The aim was to “create a series of online modules designed to develop pre-service teachers’ capacity for professional resilience” (Proposal document, 2013). This aim has been achieved and surpassed. BRiTE is an outstanding online resource. Not only has it been designed and created according to well-regarded design principles, participants report a better understanding of their capacities for professional resilience. What has been achieved is outlined below through an examination of the deliverables and outcomes.

The project had five intended outcomes.

1. To provide pre-service teacher educators with a series of BRiTE learning modules that can be embedded in teacher education programs.

2. To assist pre-service teachers build the personal and social capabilities associated with professional resilience.

3. To engage teacher educators, pre-service teachers, and representatives from key stakeholder groups in discussions about implementation of the modules in teacher education programs.

4. To provide evidence-based guidelines to teacher education providers about how the modules may be used in order to improve teacher preparation in higher education and, more broadly, teacher quality in Australia.

5. To determine whether engagement with the modules is perceived to have an influence on pre-service teachers’ development of resilience.
Extent to which the project has achieved its intended outcomes

The intended outcomes are quite diverse in nature. Evaluation of these outcomes requires examination of (1) the quality of website and modules as the main deliverable; (2) the utility of the modules in assisting pre-service teachers to build capabilities related to resilience; (3) the effectiveness of engaging pre-service teachers, teacher educators and others in discussion and implementation processes; (4) the utility of the modules and guidelines for teacher educators and (5) perceptions of the impact on the development of resilience.

(1) The quality of the website and modules

The primary project deliverable is the BRITE set of modules for Building Resilience in Teacher Education. These are currently accessible through the BRITE website www.brite.edu.au.

The BRITE Website

The website is attractively presented and easy to follow, with the invitation:

“Pre-service Teacher?

This program is for you!”

and images of four smiling teachers with their classes appearing in turn. These photographs suggest diverse teachers in a range of educational situations, with a male teacher in the Main page screenshot (right).

The Login link is clearly evident at the right hand corner and also a link, “Get started”.

Below the image the aim of the BRITE program is presented:

The aim of this program is to help pre-service teachers build their awareness of the skills and practices that will help facilitate resilience in their teaching career.

The program contains 5 online interactive learning modules focused on Building resilience, Relationships, Wellbeing, Taking initiative and Emotions. Throughout each module participants can take self-quizzes, learn about skills and strategies, view videos, apply skills to realistic situations, learn about what experts in the field have found and build their own personal toolkit. Each module is connected to the Australian Professional Standards for Teachers (Australian Institute for Teaching and School Leadership, 2014).
In order to enter the modules, a visitor to the website must register a new account (using their email address) and consent to their de-identified data being used for research. They are then emailed a link to verify their email address, after which they can proceed to login and access the modules.

It is clear from the Google analytics and website data that while a large number of visitors have completed at least one module, not everyone who visits the website attempts to log in, and not everyone who registers follows through to verify their email and proceed to the modules. The data are discussed later in the section on Sustainability evaluation. Visitors who are not pre-service teachers are less likely to proceed, and this makes sense given the invitation is to Pre-service Teachers.

At the bottom of the Main webpage there are links to pages containing a list of Resources and an information page ‘About the program’ both of which can be accessed without logging in. A recent addition is the link to a ‘dedicated resource page’ for Teacher Educators, which includes information about how to use the modules in teacher education programs, the downloadable Implementation Guidelines, a Quick Reference Guide, and widget for embedding the modules in online teaching materials. Currently there is no invitation to teacher educators or link to the resource page from the Main webpage. This is something for the team to review as wider implementation proceeds.

The modules

It is hard to find anyone who is not impressed with the modules, the way they were developed and the possibilities for their use in teacher education. Responses of Reference group, Advisory group and BRiTE community members attest to the quality and uniqueness of the modules:

*The tool that the team has developed is outstanding. Comparing it with a number of applications available and in the development this tool is one of the best if not the best.* (Reference group member)

*The resource provides a rare, if not unique, engagement with the mental health and wellbeing of pre-service teachers. It provides a relevant, well paced and intuitively structured engagement with the critical issue of self care. I believe the BRiTE resource can make a significant contribution to supporting teachers to be job ready.* (Advisory group member)

*I believe the resource complements existing work and address a significant gap in the currently available supports for pre-service teachers.* (Advisory group member)

The development process was iterative as explained in the Project Report and took account of constructive feedback from the initial trials of module 2 (evaluator participated in the final workshop in August 2014) and the pilot implementation of five modules in October-
November 2014 with an initial group of 144 Pre-service teachers and 37 Non-pre-service teacher participants (Pilot Implementation Report, 2014). Feedback from some of those participating in trials included:

I mainly gave feedback on the first module (B) via E-Mail. As far as I can see it, they’ve worked on the issues I have mentioned. (BRiTE community member)

Caroline always discussed my input and whether it was acted on or not. (Advisory group member)

The original intention was to develop four (4) modules each including clear learning outcomes, a case or scenario relating to the National Professional Teacher Standards (now known as Australian Professional Standards for Teachers), structured authentic learning activities involving reflection and problem solving, and suggestions for implementation and assessment. After consultation with the web designers and further investigation of module design, the team adopted four design principles to guide development of the modules. These were: ‘grounded in literature’, ‘interactivity’, ’personalised’ and ‘connected to the teaching profession’, and these principles are used here to evaluate specific aspects of the modules.

Grounded in literature

In the first phase of the project the team conducted an extensive environmental scan to identify research relevant to teacher resilience to add to the research conducted as part of the previous project, Keeping Cool. The literature formed the basis of module content as evidenced in the comments of Reference and Advisory group members who are experts in the mental health and resilience areas.

I applaud the project leaders for their innovation and integration of evidence-based knowledge into teacher training. (Reference group member)

EXCELLENT! Great resource backed by research. It is accessible to students and it also highlights the importance of research and how research informs practice. (BRiTE Community member)

It represents a robust intervention for promoting mental health, preventing mental health problems and illness and supporting help seeking. The resource provides a well thought out translation of research and practice based evidence into the context of the professional activities, responsibilities and challenges that teachers face. There are useful connections and pathways to a range of services, resources and initiatives. (Advisory group member)

The modules are excellent. The material is in-line with my understanding of the key concepts, e.g. resilience, and what I would see as the evidence base. The way that the modules link to further material, references and sources of information show that it is drawn from research/evidence. (BRiTE community member)

Interactivity

There are a number of interactive elements in the modules, such as self-quizzes and reflection activities, and scenarios with which participants can engage and gain feedback based on responses. One pre-service teacher highlighted the interactivity of the modules:

Informative and interactive to engage and apply strategies to real situations. (Participant, survey 2015)
Evidence from the website data and web designers shows that users utilised the interactive features.

Many of them [module users] are very keen to make use of the website’s interactive features, in particular we noticed during the pilot that users were typing a lot into the various textboxes. They didn’t seem to be in a hurry to get through the screens. They are serious users and quite computer literate. There is a drop-off rate but it’s to be expected and I think the modules are interesting & useful enough that people make the effort to continue. (Web designer)

The website data provide evidence of how many people have interacted with the modules and typed in a response at different points in the modules. For module 1, 335 (73%) of module users, who entered the module, typed in a response to ‘what is resilience?’ In addition (40%) engaged in the self-quizzes of module 1 and 106 (23%) were still interacting by module 5.

Participants were able to ‘pin’ information from the modules that they found useful, for downloading and printing and adding to their personal Toolkit. Data from the website revealed that of a total of 291 ‘pinable’ items, participants pinned 275 different items from the modules, totaling 1899 items pinned. As shown in Table 1, all of the Tips were pinned by at least one module user showing that participants thought the suggested strategies were useful, and able to cater for a range of students with potentially different needs.

Table 1. Number of Module Items Pinned from Website Database

<table>
<thead>
<tr>
<th></th>
<th>Module 1</th>
<th>Module 2</th>
<th>Module 3</th>
<th>Module 4</th>
<th>Module 5</th>
<th>Total items pinned</th>
<th>Total items in modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tips</td>
<td>36</td>
<td>41</td>
<td>28</td>
<td>13</td>
<td>37</td>
<td>155</td>
<td>155</td>
</tr>
<tr>
<td>Quotes</td>
<td>3</td>
<td>6</td>
<td>12</td>
<td>12</td>
<td>8</td>
<td>41</td>
<td>47</td>
</tr>
<tr>
<td>Experts Say</td>
<td>4</td>
<td>6</td>
<td>7</td>
<td>9</td>
<td>5</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>Recommendations</td>
<td>4</td>
<td>8</td>
<td>7</td>
<td>3</td>
<td>6</td>
<td>28</td>
<td>35</td>
</tr>
<tr>
<td>Little Wisdom</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>Module totals</td>
<td>49</td>
<td>63</td>
<td>58</td>
<td>45</td>
<td>60</td>
<td>275</td>
<td>291</td>
</tr>
</tbody>
</table>

The most popularly pinned items were from module 1 (Building Resilience), possibly because more people completed module 1 than any of the other modules. The top four items were research-based information about resilience.

Experts Say Pinned by 57

“the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress — such as family and relationship problems, serious health problems or workplace and financial stressors.” (American Psychological Association, 2014)

Little Wisdom Pinned by 44

“When I encourage someone else, I see it as an investment in their resilience” - Steve Karagiannis

Experts Say Pinned by 39

“both the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being, and their capacity individually and collectively to negotiate for these resources
to be provided in culturally meaningful ways.” (Resilience Research Centre, 2014)

Quote A resilient teacher is “A person who utilises inner resources (strength) and external resources (such as peers) to overcome challenges of the profession”

Each of the other modules had items that were pinned by ten or more participants. The most pinned were Tips.

Tip (Module 2) You may be able to provide support for someone else and establish your network this way. Look out for situations where you may be able to assist.

Tip (Module 3) Recognise your unhelpful, negative thoughts and create another way of seeing the situation. Think – it is not permanent, it is not personal, it is not pervasive.

Tip (Module 4) Have a ‘bag of tricks’ – activities that will engage the students and perhaps provide a distraction to the current problem and/or situation (examples may include subject ‘hang-man’, subject bingo, writing a communal story / question response, quizlets or a focused activity review comprising of 1 learned item + 1 question + 1 comment).

Tip (Module 5) Next time you experience an emotion try the ACT steps. Reflect on which of these steps you currently use.

These pinned items show that the participants engaged with the content and interacted in the manner in which the modules were designed to be used.

Personalised
Being able to ‘pin’ items was one of the personalised aspects of the modules.

Based on participant initial responses, a suggested personal plan (My Personal Plan) was developed for each participant. At any point in working through the modules, a participant is able to check their progress through the module by clicking on My Progress, or review items pinned (My Toolkit).

It is also clear from the range of items pinned and the comments of pre-service teachers who completed the modules that they found different modules most useful for them personally:

Wellbeing I think was the most helpful. (Participant, 2015 survey)

Building resilience and positive relationships. (Participant, 2015 survey)

Taking initiative. (Participant, 2015 survey)
This is further evidence that the modules cater for a range of needs, another aspect showing personalised design.

The login and capability to save responses also adds to the personalised nature of the modules. This was appreciated by both Advisory group members (mainly teacher educators) and pre-service teachers.

*Also, the formal structure and the functionalities of BRITE, such as length of the modules, possibility to save your progress, taking notes, content overviews etc. allow the participants to work on the modules whenever there’s time and also allow to restart easily after a break.* (Advisory group member)

*These tools and especially the toolkit, which might function as a kind of reference book on possible skills and strategies whenever needed, will help to deepen the understanding of teacher resilience and to use the acquired knowledge in their daily lives.* (Advisory group member)

*I could resume to some of the strategies.* (Participant, survey 2015)

*I am able to refer back to them if things are getting on top on me or if I feel I need to review and refresh on some of the information.* (Participant, survey 2015)

**Connected to the Teaching Profession**

Each module includes videos related to the Australian Professional Standards for Teachers and links to the curriculum. It seems that this feature was more highly regarded by teacher educators than by pre-service teachers, possibly because educators were thinking through how to use the modules.

*Since the modules are linked to the Australian Professional Standards for Teachers they can easily be embedded in the Teacher Education programs.* (Advisory group member)

It is difficult to judge pre-service teachers’ reactions to the links to the profession as there were very few comments. From an examination of the Pilot Implementation Report there is no reference in reported comments from pre-service teachers on the inclusion of standards and although some commented “good videos” others found that “AITSL videos did not load” (Pilot Implementation Report, 2015, p. 40).

**(2) The utility of the modules in assisting pre-service teachers to build capabilities related to resilience**

It is clear that teacher educators and experts found the modules to be very useful with potential to meet the aims of building resilience.

*The modules are extremely useful. They are accessible, easy to follow, interactive, engaging and very professional.* (Advisory group member)

Others pointed out the relationship of module design to the capacity to build resilience:

*Since the BRITE modules focus on the main aspects discussed in teacher resilience literature, they allow raising awareness on the matter. The interactivity and the scenarios etc. that are offered give the relevance to practical application needed to deepen the understanding and to actually improve resilience skills.* (Advisory group member)

*...if students use them in the intended way that are provided with a tool that allow them to reflect on their situation, on what to expect and how to improve their skills.* (Reference group)
The major question is how useful the modules were to the pre-service teachers who completed them. The participants who responded to the 2015 survey were generally positive about the modules, and Table 2 shows the extent they had used them since completing the modules in 2014. Three-quarters of participants had recalled the units in relation to teaching and almost as many in areas outside of teaching.

Table 2. Use of Modules by Survey 2015 Participants

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes %</th>
<th>No %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you recall thinking about the modules in relation to your teaching since completing them last year?</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>Do you recall thinking about the modules in relation to other aspects of your life?</td>
<td>67</td>
<td>33</td>
</tr>
<tr>
<td>Have you consciously used any of the strategies that you learnt about in those modules?</td>
<td>58</td>
<td>42</td>
</tr>
<tr>
<td>Have you returned to the BRiTE modules since participating in the trial to look at the modules?</td>
<td>33</td>
<td>67</td>
</tr>
</tbody>
</table>

Two-thirds of participants thought the modules were very useful or more useful than expected. They also described the ways in which the modules were supportive and useful:

they reminded me that I was transitioning into a new role and couldn't expect to be an expert immediately, they also prompted me to accept that I was learning and to use the environment, colleagues and contacts to establish networks and analyse my teaching practice. (Participant, survey 2015)

They forced me to consider ways in which to support myself in my new profession. (Participant, survey 2015)

All were useful, as they made you reflect on strategies you already possessed, and even those you didn't realise would offer you use. (Participant, survey 2015)

They helped me reflect on a regular basis on my professional practice. (Participant, survey 2015)

Information was useful when completing modules but forgot about accessing them once completed. (Participant, survey 2015)

The participants thought the modules could be useful to other pre-service teachers but differed on the extent to which life experience might temper usefulness:

will tell them if they are asked to participate to say yes as they were useful. (Participant, survey 2015)

I would recommend anyone doing a teaching degree do all the modules. No matter what your life experiences are, they will be helpful. (Participant, survey 2015)

Resilience and especially for students who are completing undergraduate courses as I feel it could greatly support persons who not have a lot of life experience. (Participant, survey 2015)

The entire program has valuable information for pre-service teachers, IF, given as a followup to content covered in class, otherwise its non-related concepts about situations that may not have been experienced. (Participant, survey 2015)
Others thought they were very useful or helpful but didn’t explain. A minority of participants didn’t recollect much about the modules but one remembered the “very nice layout”, and another thought about “potentially useful information, in a place that I rarely visit”. Another thought the modules were “bit repetitive though”.

The participants were asked how useful the modules might be in the future and the response was very positive (see Table 3).

Table 3. Perceptions of Future Usefulness of Modules from Survey 2015 Participants

<table>
<thead>
<tr>
<th>Question</th>
<th>Definitely %</th>
<th>Maybe %</th>
<th>Neutral %</th>
<th>Unlikely %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you think you might use any of the strategies/tips from the modules in the future?</td>
<td>50.0</td>
<td>41.6</td>
<td>8.4</td>
<td>0</td>
</tr>
<tr>
<td>Would you recommend the BRiTE modules to other pre-service or beginning teachers?</td>
<td>83.3</td>
<td>16.7</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

They also provided feedback on how they might use the modules in the future:

_I would love to dive back in - I refer back to some lecture insights, tutorials and have incorporated some of the BRiTE learnings into my attitude and philosophy._ (Participant, survey 2015)

_If my own strategies fail to improve a situation I may refer to the modules._ (Participant, survey 2015)

_How best to handle student’s reactions from their emotional expressions._ (Participant, survey 2015)

_When out on placement, it is good to refer back to the modules before placement. Helps to refresh many of the strategies and highlight which of my habits are positive/negative and may need to be modified._ (Participant, survey 2015)

But others thought they wouldn’t use them in the future as they “Forget how to access them” or “found most of the strategies too broad”.

One in three of the participants had gone back to the modules after completing them, half thought they would definitely use strategies in the future and almost all would recommend them to others.

Those who hadn’t returned to the modules felt they hadn’t needed to or had forgotten about them or hadn’t had enough time to do so, suggesting that the modules catered for different needs.

_I have not felt the need for that level of support_ (Participant, survey 2015)

_simply did not occur to me to return to the units_ (Participant, survey 2015)

_Time…..I took out of them what I needed at the time_ (Participant, survey 2015)

There were also 11 pre-service teachers who completed modules and filled out the pilot implementation evaluation questions in 2015 (after the project team compiled the pilot implementation report). Their comments on usefulness are included here as an unsolicited group.
I completed this module [module 1] over several days (in a total time of about 1 hour). This module has helped me to feel more confident and comfortable in a difficult working environment. Just by focussing my attention on qualities of being resilient, I have been able to improve my resilience and improve my outlook at work. Having a guide and something to refer to when things are tough was very helpful. (Pre-service teacher, 2015)

Thanks! It was a good reminder - and something that was not well covered in my course. I needed some of it to manage the mentor relationship issues .... (Pre-service teacher, 2015)

[module 5] Great one! - I enjoyed every single bit of it!! (Pre-service teacher, 2015)

(3) The effectiveness of engaging pre-service teachers, teacher educators and others in discussion and implementation processes

The project team began early in the project to prepare dissemination channels and create interest and engagement in the project. As the project built on a previous one, there were already people interested to hear about the next phase and to engage where possible, and these connections were utilised. Many of the people who were contacted for feedback said that they heard about the project from personal communication with one of the team members, from attendance at a conference (especially the Australian Teacher Education Association [ATEA] annual conference), or from an invitation to an event related to the project. Team members also pointed to their varied connections contributing to engagement of a wide range of people as they work “in different areas”, “belong to different groups” and “had contacts in different fields of education”.

the willingness of team members to ‘fly the BRIITE flag’ at a range of events has been wonderful. (Team member)

The team has worked within the constraints of the project funding to disseminate this resource broadly. I have encountered in my communication with education academics a good general awareness of the project nationally. (Advisory group member)

The project documents provide evidence of the specific events organised and conferences attended, at which the rationale and design of the modules were discussed. These include:

ENTREE, Aachen, Germany: December 2013
Trials of the first module: May, July, August 2014
ENTREE, Prague: April, 2014
ATEA Conference, Sydney: July 2014
ENTREE, Dublin: August, 2014
Teaching and Learning Forum, Perth: January 2015
ENTREE, Portugal: February, 2015
Website Launch, Murdoch: February, 2015
ATEA, Darwin: July 2015
European Association for Research on Learning and Instruction (EARLI) Conference, Cyprus: August 2015

At the trial workshop I attended participants were “very excited by the project, eager to review the trial module and engage in discussion about how it might be further developed”
The willingness to engage is evident in the following feedback:

- *It has been successful in engaging a wide range of experts in the field of resilience and teacher education, not only to develop this resource but to assist with the dissemination throughout the community.* (Team member)
- *I have participated as part of a workshop at ATEA conference and then participated in reviewing process of the website.* (Advisory group member)
- *I gave feedback early on in the piece on the structure of one of the modules and then gave feedback as part of the formal focus group discussion and once the modules were completed. I saw changes in a module after my initial feedback.* (Reference group member)
- *The BRiTE team gave a presentation on the project and the modules. I was asked to give feedback during the lifetime of the pilot.* (BRiTE community member)

A similar enthusiasm for the modules and how they might be used was evident at the WAIER Forum presentation recently. The Implementation Guidelines were launched at ATEA in July 2015, demonstrating support from the wider teacher education community.

In addition, the website data demonstrate that pre-service teachers and other educators have engaged with the modules (459 between September 2014 and July 2015) and 143 provided feedback through the pilot implementation evaluation (Pilot Implementation Report, 2015, p. 13). The activities throughout the project have effectively engaged the intended groups, both in terms of discussion and in the ongoing implementation phase.

*(4) The utility of the modules and guidelines for teacher educators*

The dissemination activities such as workshops, conference presentations, BRiTE postcards, Website Launch, mention of the project on social media and word of mouth have introduced the modules to a wide range of teacher educators and interested others.

The Implementation Guidelines is the main vehicle for supporting teacher educators to embed the modules in teacher education programs. It is a necessary and important part of the BRiTE package to increase the likelihood of adoption. As one team member reflected:

- *The Guidelines provide a foundation or ‘backbone’, with suggested modes of incorporating, embedding and ensuring pre-service teachers have the opportunity to explore and gain skills and knowledge. So often we have a resource available, but the time to consider the ‘how’ is not always possible... to the detriment of actual use of the resource.* (Team member)

The BRiTE project has attended to the resource, the modules, and the ways it might be implemented.
The Implementation Guidelines document uses the same colours and photographs as on the website, providing continuity. Being available in hard copy or downloadable from the project website makes the guidelines readily accessible.

The four page fold out guide includes information about BRITE, the content of the modules and the design principles, as well as suggestions on how teacher educators might use the modules, and how BRITE topics link to the Australian Professional Standards for Teachers (APST), the Australian Curriculum, Assessment and Reporting Authority (ACARA), and the Early Years Learning Framework (EYLF). This demonstrates for teacher educators the way in which the modules support both the development of resilience of teachers but also their students through the curriculum (page 4 to right).

There is evidence that in their engagement with teacher educators, team members have listened to feedback about how best to support the embedding of the modules in teacher education programs. The feedback comments show that there are different views about how best to do this, and the guidelines go some way to cater for these differences.

I think teacher educators would make most use of the implementation guidelines, based on the informal feedback we have had at events such as ATEA in 2015. I sense that teacher educators want to know what’s in the modules but may not necessarily have the time to go through each. There seems a positive response to the content of the modules and how they may be used in teacher education. (Team member)

Given the diverse and distinctive ways teacher education is delivered in the Australian context I find the guidelines helpful. The use of analogy, the reference to the research surrounding the project and the connections with capstone frameworks should assist people in both feeling comfortable with where the resource comes from and how it can fit in. (Advisory group member)

I feel the modules are extremely useful but should not just be used completely independently by the student. If they are embedded properly they can be used to discuss points, provide feedback etc – so they need to be embedded in an interactive manner. (Reference group member)

This resource provides clear milestones and directives. Without such a guideline I think BRITE would be a watered down version. (Reference group member).

To support teachers educators’ review of the modules for planning their use in their teaching, the project team have recently modified the way that teacher educators can interact with the modules, so that they can gain a sense of their content and design without working right through each module, if they register as Teacher Educator. It is too soon to know how this impacts on teacher educators, but there the likelihood is high that this will be helpful.

In my experience of providing resources for self-implementation a stepped approach of support is probably the most effective. Some educators will be able to build on this
implementation guide, but I believe that there will be some need for additional scaffolding to allow those who are less engaged in the approach proposed in BRiTE to see how to fit it into their approach. (Advisory group member)

Based on feedback from teacher educators using the modules in 2015, an additional resource was developed, the Quick Reference Guide, and as one team member stated “we feel the quick reference guide which was not an intended deliverable will also be of great use”.

To date there is evidence from the website data that each of the three universities with team members involved and at least one other university (CDU) have begun using the modules with students at various stages in their teacher education courses. Additionally, others have indicated to team members that they will be using the modules.

I have began to use them during professional learning workshops with preservice teachers. (Advisory group member)

I am using the modules in my placement units in preparation for the second year prac (2 modules) and will roll out more in 2016. (Advisory group member)

Having spoken with teacher educators at ATEA in Darwin, there are many who have indicated they value the quality and aims of the modules and will be offering them to their students. (Team member)

Overall, the evidence suggests that teacher educators who have been engaged with the project have begun to use the modules and in different ways. It is too early to tell how useful the guidelines and guide will be for teacher educators who have not been involved in the discussion and implementation processes.

(5) Perceptions of impact of engagement with the modules on pre-service teachers’ development of resilience

In response to a question about what comes to mind when they think about the modules, one-quarter of participants in the 2015 survey specifically mentioned taking “care of yourself”, with others writing about not letting things overwhelm you, reflection and the importance of relationships and communicating.

resilience is topical in the school environment, too many teaching are fatigued and do not take care of themselves....the BRiTE modules and the incredible insights from the academics from the University of Wollongong have continued to remind me to take care of myself, use some humour, generate rapport, establish and support a network (Participant, 2015 survey)

The importance of reaching out and communicating with colleagues, balancing work and life to manage my new role and handling challenging situations with strategies to be a resilient teacher with a healthy mental approach. (Participant, 2015 survey)

Skills on how to build resilience, how to deal with the variety of tasks teaching has without letting things overwhelm you. (Participant, 2015 survey)

The modules provided valuable strategies, that were commonsense however the modules, assisted me to reflect on experiences and current situations, affording me the opportunity to build on my own strategy repertoire. (Participant, 2015 survey)

Participants were asked about what has happened that made them think of the modules, strategy or tips in their teaching. Several came up with situations where they were under
pressure, such as student confrontations, receiving “unsatisfactory” in teaching performance, and under pressure on placement, and pointed to the things they remembered that helped them.

*I prioritised and got through what needed to be done.* (Participant, 2015 survey)

*I have remembered to focus on staying positive and not getting drawn into the local cliques of negative politics.* (Participant, 2015 survey)

...helped me reflect on the module of building resilience and positive relationships within the school context. (Participant, 2015 survey)

One participant pointed out that the “module on building relationships gave me the feeling that my free time is necessary and valuable”. Another remembered them at a conference when the central themes of the modules were relevant across various week environments.

Another had used the modules widely.

*Since graduating I have focused on becoming a reflective practitioner. I have also been encouraging my students to reflect on their learning. I talk about resilience to students and strategies to care for themselves. I have also spoken to my work colleagues, executive teachers and other new graduates about elements of the BRITE module. ... I am also making use of mentor networks in the workplace, beginning teacher networks...* (Participant, 2015 survey)

Participants were also asked about what has happened that made them think of the modules, strategy or tips in other aspects of their life. While three participants mentioned their relevance in family life and relationships, another three mentioned non-classroom professional situations where they were relevant.

*Yes, specifically in relation to caring for myself and aiming for a manageable balance. I try to schedule time for things that are important to me in the personal realm and make some time for friends, family and social networks. Having children reminds me of why I want to teach and this helps me prioritise so their needs aren’t missed with the responsibilities of my new role.* (Participant, 2015 survey)

*The strategies are relevant coping mechanisms for life and relationships in general.* (Participant, 2015 survey)

*Conflict resolution, and making meaningful relationships in staff settings.* (Participant, 2015 survey)

*Nightly workload.* (Participant, 2015 survey)

In explaining the strategies that they had used consciously, humour, exercise and scheduling were common themes.

*adopting humour to ease tense moments, walking/exercise, laughing with friends, scheduling time for those that are important to me, reflective journal.* (Participant, 2015 survey)

*Humour...it resonates with me, and the nature of life, relationships family and work environments, requires one to see the funny side of things, to help yourself surmount issues, negative feeling etc, plus humour can help others ‘climb out of the hole’.* (Participant, 2015 survey)

*Conscientious scheduling of work/life balance. As well as deep breathing to switch off and relax.* (Participant, 2015 survey)

*I can’t recall the specific module name but I reviewed them when I was feeling...*
overwhelmed and preparing for my DEC interview. During the initial months of casual work I checked in a few times when behaviour management was problematic as I was often only having a class for 1 hour at a time. (Participant, 2015 survey)

The outcome for one pre-service teacher was “that my performance levels and rapport with the students gradually improved during the immersion practicum”. Overall, a majority of these participants could articulate how they believed the modules had supported them in the months since completing them.

Even those who hadn't used them consciously thought they may have.

On reflection I think I have unconsciously used them. They are in that toolbox of things I know about, but I don’t consciously reflect on where they have come from. Being half way through my course there are so many different strategies I have learnt, I cannot recall where all of them came from. (Participant, 2015 survey)

But for two others the module strategies were unnecessary.

I decided to be myself and come up with a method that works for me. (Participant, 2015 survey)

There were some comments that were less positive, but were focused on the time it took to complete the modules or refer back to them.

They were quite time consuming. (Participant, 2015 survey)

time and that has stuck with me, however it was a time consuming exercise. (Participant, survey 2015)

An overall summary would have complimented the modules, and offer a ease of return in terms of time. University students are busy people (well the good ones) time plays a role in whether people will take the information on board, understand and develop the strategies further (Participant, 2015 survey)

A team member raised a note of caution as to the impact of the modules on teacher resilience:

One of the major issues is that resilience is such a complex, dynamic and multidimensional construct that it is difficult to determine whether there has been a positive (or otherwise) impact in such a relatively short space of time. Another challenge is that resilience is contextual, so the extent to which individuals feel they respond in resilient ways is also influenced by the contexts in which they work. (Team member)

Early indications are that for at least some of the pre-service teachers who completed the modules, there is an awareness of the capacities that build professional resilience, and many of these participants have adopted language from the modules to articulate and discuss strategies that support resilience.

Unanticipated Outcomes

There are a number of outcomes that were not planned and add to the value of this project.

The size and reach of the project is greater than originally envisaged in the proposal. For example, the modules were developed for pre-service teachers, but others see a value for early career teachers. Members of the team have received invitations from several groups to follow up. NSW Board of Studies Teaching and Educational Standards (BOSTES) is working with one team member to enable in-service teachers to seek accreditation at the higher levels of the Australian Professional Standards for Teachers using the BRiTE modules as a
foundation, and another from the RESCUR project in Europe. *Google* analytics (see in the Sustainability evaluation section) also points to the reach of the project.

One outcome of the reach of the project has been the development of networks that have been “valuable for dissemination, project support and I hope for future projects” (Team member).

In addition, Caroline Mansfield and Susan Beltman are connected with the European project (ENTREE) as third country partners. A number of the ENTREE participants have completed modules and provided feedback to the BRiTE team, but the ENTREE team has also gained insights that have informed their project.

The conceptual work undertaken as part of the project is extensive and the project has enhanced understandings of resilience for the team and others. Planned publications (outlined in the Final Project Report) will further add to the field.

*The scientific community is very interested in it.* (Reference group member)

*Participation by two of the team in the ENTREE project as well as by all team members in different international conferences has enhanced the status of Australian work in this field. Publications are being prepared and others are planned that will continue the impact of the project into the future.* (Team member)

Overall, the outcomes have been achieved, and in most cases, the outcomes have exceeded those planned for the project.

**Process Evaluation**

- To what extent was the project implemented as planned and funded?

The BRiTE team members have worked very hard to produce the highest quality outcomes that they could. In a number of ways they have gone beyond what was planned and funded. Four modules were planned and five have been delivered with about double the functionality originally proposed. The team has developed several resources (Implementation Guidelines, Quick Reference Guide, Widget for embedding in LMS) to support embedding the modules in teacher education programs and widely disseminated information about the project and the modules.

One of the intentions was to develop “evidence-based” guidelines for teacher educators. This was an unrealistic aim in the funding time frame. However, the team has consulted widely with teacher educators and used their own broad experience to develop a range of options for embedding the modules in teacher education. Presenting options as “Appetizers”, “Buffet”, “Dine in or takeaway”, and “Banquet” portrays the flexibility to teacher educators.

As one of the team members said in their reflections on the project, they achieved the outcomes through “time, commitment of team members, having fabulous web designers and hard work!!”

But it wasn’t by hard work alone that the BRiTE team has achieved what it has. It is also due to skilful leadership and innovative thinking. It is clear from team member reflections and my own observations over the project that the Project Leader, Caroline, and the web designers put in much more work than planned and budgeted for. Team members strongly endorsed Project Leader, Caroline’s leadership as a major factor in the success of the project:
The achievements have been realised due to a highly efficient and effective project leader. While the team developed a proposal for the project that was ambitious in its outcomes, Caroline Mansfield must be given full credit for her expertise in project leadership that has ensured timelines were met and the team delivered the work expected of them. (Team member)

This has been the best OLT project I have worked on. It was project managed well by Denyse and Caroline was absolutely amazing in her leadership of the project. (Team member)

These outcomes could not have been achieved without amazing leadership by the Project Leader (Caroline) (Team member)

The web designers were innovative and worked far beyond the original scope of the project.

Without doubt, the web designers, Claire and Ron Botman have been absolutely critical to the success of the project. From the original design idea to the final outcome, they have been innovative in supporting our vision – taking me beyond what I thought was even possible – and highly responsive to requests and my “I wonder if we could…”. Claire has worked with us in the true spirit of collaboration throughout the project, often going above and beyond to achieve an outcome we can all be proud of. It has been both inspiring and rewarding to have Claire and Ron on our BRiTE team. (Team member)

We asked our web design team to undertake a LOT of work and had not really budgeted for the scope creep we encountered… While they have seemed happy to work with our scope creep, I would feel it more appropriate to have had the scope clearer within the proposal stage, to ensure we secured a realistic budget. (Team member)

Our web designers have been magnificent in providing vision of what could be achieved and following up with the actual design. (Team member)

Team members reported feeling “proud to be a part of the BRiTE Team” and how the “particular strengths of each team member really contributed to project success”. Words used by the team demonstrate the collaborative way of working that developed over the project: “collegiate and supportive”, “respect of each person’s expertise”, “ongoing positive support”, “enthusiasm for the project”, and “highly motivational”.

The collaboration extended to the manner in which team members worked with the web designers:

The small team that worked well together with us. Everyone was very responsive & it was clear to us who our main contacts were & everyone's roles. The educators worked really hard on authoring the modules & were imaginative about possible features without necessarily knowing what was possible. We felt we were given some creative license without being expected to come up with the content itself. They kept us well informed of milestones. (Web designer)

During the formative evaluation, the most challenging aspects identified were the amount of time actually required to achieve the proposed outcomes in a relatively short time period, and the difficulty team members had in juggling competing work commitments. While these challenges were evident over the entire project, as time went on the team appeared to better understand each other’s way of working, maintained a positive attitude and learned how to manage themselves and support each other to “achieve their shared vision”.

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For future projects, the team would organise ways of working within the project differently, to further utilise the strengths of team members and time available:

*Probably I would structure the project a little differently with team members working in ‘intensive’ ways at particular points rather than constantly all the way through. I think it would have been good for team members to have increased ownership of particular aspects of the project and to be more responsible for delivery of project outcomes.* (Team member)

*I would also consider engaging social media at an earlier point in the project.* (Team member)

*I would not specify “academic buyout” or “teaching buyout” on the budget but allow a pool of money for research assistants and have the project leader allocate this as needed. Or employ one person that all team members could access.* (Team member)

Overall, the planned approach to the project has been enacted and was innovative, rigorous and collaborative.

**Sustainability Evaluation**

- To what extent can the project be scalable, sustainable and transferable?

For any project to have impact in the longer term, its ideas and products need to be available and adaptable within and beyond the institutions in which they were developed. *Google* analytics and website data provide evidence on the extent of dissemination of the ideas of BRiTE and the feedback provides some evidence of adoption and adaptation of the resources. Together they demonstrate that the project is scalable for use outside the project institutions.

Tables 4 and 5 show the extent of dissemination of BRiTE. The months with the longest sessions times and lowest bounce rates (shaded in Table 4) correspond with the pilot implementation (September-November 2014), Website Launch (February 2015) and workshops and pre-service teacher engagement (April 2015).

**Table 4. Google Analytics from September 2014 to July 2015**

<table>
<thead>
<tr>
<th>Month</th>
<th>Visitors</th>
<th>Sessions</th>
<th>Pages/Session</th>
<th>Av Session Duration</th>
<th>New Visitors %</th>
<th>Bounce Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept</td>
<td>65</td>
<td>97</td>
<td>18.34</td>
<td>27:26</td>
<td>67.0</td>
<td>20.62</td>
</tr>
<tr>
<td>Oct</td>
<td>221</td>
<td>459</td>
<td>14.24</td>
<td>21.48</td>
<td>43.1</td>
<td>23.75</td>
</tr>
<tr>
<td>Nov</td>
<td>208</td>
<td>424</td>
<td>19.55</td>
<td>22.24</td>
<td>36.3</td>
<td>18.40</td>
</tr>
<tr>
<td>Dec</td>
<td>54</td>
<td>152</td>
<td>7.03</td>
<td>9:01</td>
<td>23.7</td>
<td>52.63</td>
</tr>
<tr>
<td>Jan</td>
<td>48</td>
<td>113</td>
<td>9.83</td>
<td>10.53</td>
<td>29.2</td>
<td>40.71</td>
</tr>
<tr>
<td>Feb</td>
<td>90</td>
<td>156</td>
<td>10.90</td>
<td>12.58</td>
<td>48.7</td>
<td>34.82</td>
</tr>
<tr>
<td>March</td>
<td>252</td>
<td>413</td>
<td>6.85</td>
<td>7.27</td>
<td>42.1</td>
<td>48.91</td>
</tr>
<tr>
<td>April</td>
<td>464</td>
<td>702</td>
<td>9.61</td>
<td>10.09</td>
<td>63.4</td>
<td>37.89</td>
</tr>
<tr>
<td>May</td>
<td>934</td>
<td>1052</td>
<td>2.67</td>
<td>2.20</td>
<td>85.1</td>
<td>68.92</td>
</tr>
<tr>
<td>June</td>
<td>866</td>
<td>1024</td>
<td>2.94</td>
<td>3.04</td>
<td>85.7</td>
<td>83.11</td>
</tr>
<tr>
<td>July</td>
<td>648</td>
<td>795</td>
<td>4.18</td>
<td>4.21</td>
<td>78.1</td>
<td>66.67</td>
</tr>
</tbody>
</table>
Looking in more detail at a four-week period, February to March 2015, Google analytics show that there was an increase in activity 16-18 February, corresponding to the Website Launch on 16 February 2015. Of the Australian users over this time 93/199 were new users, with a bounce rate of 27.64% and average of 11.21 pages per session and sessions lasting an average of 13 minutes. Table 5 shows the countries of users of the website. While some of the users came to know about the project from the project team through personal contacts and international conference presentations, it is also likely that some users have found the website, after the launch of the website in February, through Google.

Table 5. Google Analytics Summary of Countries of Origin of Sessions

<table>
<thead>
<tr>
<th></th>
<th>Sept-Nov</th>
<th>Dec-Feb</th>
<th>Mar-May</th>
<th>June-July*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>903</td>
<td>181</td>
<td>1153</td>
<td>560</td>
</tr>
<tr>
<td>Elsewhere</td>
<td>USA 35</td>
<td>USA 11</td>
<td>USA 507</td>
<td>USA 355</td>
</tr>
<tr>
<td></td>
<td>Germany 17</td>
<td>19</td>
<td>Germany 55</td>
<td>Germany 41</td>
</tr>
<tr>
<td></td>
<td>Portugal 11</td>
<td>8</td>
<td>Russia 28</td>
<td>China 74</td>
</tr>
<tr>
<td></td>
<td>Czech Rep 5</td>
<td>21</td>
<td>Russia 8</td>
<td>Japan 45</td>
</tr>
<tr>
<td></td>
<td>UK 2</td>
<td>3</td>
<td>22</td>
<td>South Korea 40</td>
</tr>
<tr>
<td></td>
<td>Ireland 2</td>
<td>3</td>
<td>19</td>
<td>Brazil 26</td>
</tr>
<tr>
<td></td>
<td>Greece</td>
<td>2</td>
<td>Portugal</td>
<td>Italy 18</td>
</tr>
<tr>
<td></td>
<td>Netherlands</td>
<td>3</td>
<td>UK 17</td>
<td>UK 16</td>
</tr>
<tr>
<td></td>
<td>UAE</td>
<td>2</td>
<td>Netherlands 11</td>
<td>India 13</td>
</tr>
<tr>
<td></td>
<td>Indonesia</td>
<td>2</td>
<td>Brazil 9</td>
<td>Canada 12</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>2</td>
<td>France 8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>153</td>
<td>Not set 153</td>
<td>Czech Rep 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not set 362</td>
<td></td>
<td>Spain 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not set 153</td>
<td></td>
<td>Hong Kong 2</td>
<td></td>
</tr>
</tbody>
</table>

* Data for 2 months, whereas other columns are for 3 months

The users with no set country had 100% bounce rates and only looked at one page. Higher bounce rates equated with low pages per session (e.g. 100% bounce rate, 1 page/session; 62.5% bounce rate, 1.62 pages/session). This suggests that a number of visitors to the site didn't go beyond the Main page and didn't login (at least not on the first visit to the site).

While Google analytics provides evidence of visitors to the website, the website data provides evidence of registration and engagement with the modules. Table 6 provides a comparison of the data from these two sources and shows that while the sources provide similar numbers of new users during the pilot implementation, fewer new visitors convert into new registrations after the website launch. Even so there is a steady flow of new registrations. Most of these are pre-service teachers.
From the website data so far, it is pleasing that pre-service teachers seem to be making most use of the modules. We are increasing our dissemination to this group through social media and also events where we have contact with teachers and school leaders. I have examples from second year students at Murdoch who have referred family members to the modules – and passed on positive feedback. (Team member)

Table 6. Comparison of Google Analytics and Website Data

<table>
<thead>
<tr>
<th></th>
<th>Google analytics</th>
<th>Website data</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Users (Visitors)</td>
<td>New Visitors</td>
<td>New Registrations</td>
</tr>
<tr>
<td>Sept</td>
<td>65</td>
<td>44</td>
<td>51 + 3</td>
</tr>
<tr>
<td>Oct</td>
<td>221</td>
<td>95</td>
<td>93 + 5</td>
</tr>
<tr>
<td>Nov</td>
<td>208</td>
<td>75</td>
<td>53 + 1</td>
</tr>
<tr>
<td>Dec</td>
<td>54</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Jan</td>
<td>48</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Feb</td>
<td>90</td>
<td>43</td>
<td>11 + 1</td>
</tr>
<tr>
<td>March</td>
<td>252</td>
<td>107</td>
<td>49</td>
</tr>
<tr>
<td>April</td>
<td>464</td>
<td>294</td>
<td>136 + 1</td>
</tr>
<tr>
<td>May</td>
<td>934</td>
<td>795</td>
<td>49</td>
</tr>
<tr>
<td>June</td>
<td>866</td>
<td>742</td>
<td>27</td>
</tr>
<tr>
<td>July</td>
<td>648</td>
<td>506</td>
<td>33</td>
</tr>
<tr>
<td>Total</td>
<td>3850</td>
<td>2728</td>
<td>514 + 11</td>
</tr>
</tbody>
</table>

Note. There is some discrepancy in September due to some registrations as part of the trials occurring earlier than September, so being picked up differently by the two sources. The + number in the New Registrations column are registrations of the web designers and team members testing the website.

Sustainability of the website in its current format also has implications for scalability. With the number of visitors to the site, one question is the extent to which the website can be maintained over time so that it can be used by pre-service teachers and others. From the perspective of the web designers this can be managed.

The website will need to be looked at once or twice a year to make sure it’s still secure and accessible, and works properly in the latest browsers. As browsers & operating systems age they develop holes which web applications need to respond to. The platform that this website runs on is open source and many developers are continuously working to maintain and improve it. The website doesn’t update its platform automatically though so this needs to be done as required. (Web designer)

There are multiple ways that BRiTE could be adopted and/or adapted. There is evidence of a number of these: through teacher educators embedding in teacher education programs as was the intention of the project, through direct promotion of the modules to pre-service teachers and early career teachers through social media and Teacher Registration websites, through inclusion in professional development workshops.

I do believe teacher educators will be the most likely to make use of the BRiTE Modules and implementation guidelines, however, I think with dissemination being promoted across Teacher Registration bodies, employers and unions, that pre-service and in-service
teachers will be keen to access modules, and choose particular modules or activities as appropriate. (Team member)

*I believe the BRITE Modules not only provide a resource for teacher education students and for lecturers / program leaders but also a valuable resource for beginning teachers and those returning to the profession. CEO Sydney have already determined the BRITE Modules will be a feature of its Refresher Course, and NSW BOSTES is intending similar. In addition, discussions are in process concerning higher levels of accreditation with BOSTES using the Modules. Teacher unions (NSW Teachers Federation and the Independent Education Union) are enthusiastic about promoting the Modules to their members (pre-service and in-service), and the Queensland College of Teachers are promoting the BRITE Modules in their presentations to pre-service teachers. (Team member)

possibly integrate it into a course or as professional development days (Participant, 2015 survey)

The interest of groups beyond the original target groups of pre-service teachers and teacher educators suggests that the project resources are transferable, both in terms of the content of the modules and their design. Team members have met with several institutions and organisations to consider the applicability for early career or in-service teachers or other professions. Although the modules appear applicable in many ways, making the ideas transferable to different cohorts would need to be the work of other projects.

The project is also timely, and with TEMAG Report and discussions surrounding teacher quality including the importance of personal characteristics of teachers, teacher educators and their institutions will be sensitised to the need to provide opportunities for pre-service teachers to build capacities for professional resilience. One team member raised caution though, as in the already extensive curriculum required in teacher education, “it will be interesting to see if in these times courses are willing to include wellbeing and resilience” (Team member).

For future projects of this type, the evaluation and feedback offer a recommendation to support transfer of learnings from this project. A key point was around involving web designers in the planning and development of the proposal and allowing more time for this development:

Talk to a developer before applying for funding to brainstorm features & prioritise into must haves & nice to haves & get a ballpark indication of cost. Involve the developer from the very beginning. (Web designer)

I would allow more time and money for the online development – to make such a personalised, interactive resource as we have, rather than a set of static information was hugely time consuming. (Team member)

Overall, the sustainability evaluation provides evidence that the project resources are scalable with a strong indication that more teacher education programs will adapt or adopt the resources, that the website is sustainable with appropriate ongoing attention, and that the content and design of the modules are transferable to other settings.
**Impact at Different levels of the IMPEL Model**

The following table draws together evidence from the evaluation to document the different levels of impact evident from the BRiTE project.

<table>
<thead>
<tr>
<th>Level of Impact</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Team members</td>
<td>“I have benefitted from working with wonderful colleagues, I have learnt more about myself personally and professionally through collaboration and cooperation. I truly treasure the time we work together, and look forward to continuing links and partnerships as we journey onwards. As such, this is a powerful message for fellow academics, who often feel the push of expectations without the pull of support and sense of ‘belonging’.” (Team member)</td>
</tr>
<tr>
<td>2. Immediate students</td>
<td>Pre-service teachers involved in the pilot implementation demonstrate awareness of resilience and use of the strategies.</td>
</tr>
<tr>
<td>3. Spreading the word</td>
<td>Engagement of people from hearing about the project at conferences. (BRiTE community member feedback) Reference group and Advisory group members passing on information about the project to colleagues. (Advisory group member feedback) Citation in recent article by a member of the Advisory group. (Advisory group member feedback)</td>
</tr>
<tr>
<td>4. Narrow opportunistic adoption</td>
<td>Students at participating institutions who have heard about the modules and completed one or more (Website database -11 students)</td>
</tr>
<tr>
<td>5. Narrow systemic adoption</td>
<td>Teacher educators at Murdoch, Curtin and Wollongong embedding Modules at different stages in teacher education courses (Advisory group member feedback)</td>
</tr>
</tbody>
</table>
6. Broad opportunistic adoption
Changes that happen because opportunistic adopters beyond participating institutions adopt or adapt ideas, learning to change for their students

- Teacher educator at CDU introduced modules to students and at least 41 accessed them (Website database).
- Students or teacher educators at 17 Australian institutions offering teacher education have accessed the modules (Website database).

7. Broad systemic adoption
Changes for students that happen because of systemic adoption or adaptation of project ideas at a broad level, beyond the participating institutions.

- Interest in the modules from a range of institutions concerned with the wellbeing of pre-service teachers, early career teachers and in other professional areas (including nursing), librarians developing online resources. Website database and feedback from Reference, Advisory, BRiTE community and Project team members indicate interest within Australia, Europe, South Africa and North America in teacher education and Australian teacher registration bodies and teacher unions.

Conclusion
This was an ambitious project. OLT has funded the development of an extraordinary resource, and the product and knowledge gained has potential to build the capacity for professional resilience of pre-service teachers, teachers and other professionals, and guide future online resource design.

The evaluation found that the project achieved the outcomes and in some areas exceeded what was planned. The project team is to be congratulated on creating the BRiTE modules, which are an extraordinary resource with strong indications for broad systemic adoption to impact on teacher wellbeing and retention. The evaluation evidence demonstrates the excellent quality of the interactive web-based modules in terms of content and design, and the very strong interest generated in the sector regarding the modules, their development and early implementation. Students and/ or teacher educators from 17 of the 49 Australian institutions on the Australian Institute for Teaching and School Leadership (AISTL) accredited program list (http://www.aitsl.edu.au/initial-teacher-education/accredited-programs-list) had engaged with the modules by 28 July 2015.

References

Appendix A

OLT BRiTE Project - Final Evaluation
Reference Group member reflection

The aims of the final evaluation are to determine the extent to which the project has achieved its intended outcomes, strengths and challenges of the project processes, utility of the project materials for the relevant stakeholders and success of the dissemination strategies. The BRiTE website is https://www.brite.edu.au

To assist with the final evaluation, please respond to the questions below. Your responses are confidential. They will be used as data for reporting, but de-identified.

1. How have you participated in the project as a Reference Group member?

2. What kind of feedback have you provided on the project? Are you aware how your feedback was used? Please explain.

3. A key objective of the BRiTE project was to develop and pilot research-based online BRiTE modules that can be embedded in Australian Teacher Education programs to influence pre-service teachers’ development of resilience. To what extent do you think the project has achieved this objective? How do you know?

4. From your perspective, how useful are the BRiTE Modules for the intended students and teacher educators?

5. From your perspective, how useful is the BRiTE Implementation Guidelines for teacher educators? (A copy was emailed recently)

6. Have you used the project materials in any way? Do you intend to use the project materials in the future? In what ways?

7. Have you passed on information about the project to others? Pre-service teachers? Teacher educators? Others?

8. What do you think will be the likely take up of the modules and guidelines in the sector?

Any other comments?

Please email your comments to jamac@murdoch.edu.au by 6 August 2015
Page 29. Appendix B
Survey for Beginning Teachers 2015, who participated in Pilot Implementation

Default Question Block

Demographic information

- Female
- Male

Age range

- 19-24
- 25-30
- 31-35
- 36-40
- 41-45
- 46 and above

Teaching qualification

- Early Childhood
- Primary
- Secondary

University attended (you cannot be identified by this survey)

- Murdoch University
- University of Wollongong

Have you been teaching in 2015?

- Full-time teaching position
Part-time teaching position  
Relief teaching  
Other work  
Not working

Last year you completed several BRITE modules relating to Teacher Resilience. (You might recall the modules were about building resilience, relationships, wellbeing, taking initiative, and emotions.) What comes to mind when you think about those modules now?

Do you recall thinking about the modules in relation to your teaching since completing them last year?

- yes  
- No

If yes, what happened that made you think of the modules/strategy/tip? Please describe the context.

Do you recall thinking about the modules in relation to other aspects of your life?

- Yes  
- No

If yes, what happened that made you think of the modules/strategy/tip? Please describe the context.

Have you consciously used any of the strategies that you learnt about in those modules?

- yes
If yes, please state which strategies you used and describe the context. What was the result?

If not, please indicate why you chose not to use a strategy or strategies you learnt about in the modules.

Have you returned to the BRITE modules since participating in the trial to look at the modules?

☐ yes
☐ No

If yes, please indicate which modules you accessed, and which parts of the modules? Did you look for specific strategies?

If you didn't return to the BRITE modules please comment.

Do you think that doing the modules has been as supportive/useful as you expected?

<table>
<thead>
<tr>
<th>What you expected</th>
<th>More useful than expected</th>
<th>Very useful</th>
<th>Somewhat useful</th>
<th>Neutral</th>
<th>Not as useful as expected</th>
<th>Not useful</th>
</tr>
</thead>
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</tbody>
</table>

If useful please describe how the modules were supportive and useful.
If you did not find the modules useful please comment.


Do you think you might use any of the strategies/tips from the modules in the future?


Please indicate how you might use the modules in the future.


If you are not likely to use the modules in the future please comment.


Would you recommend the BRiTE modules to other pre-service or beginning teachers?


If you will recommend the modules, which modules are you most likely to recommend and in what context?


If you have any additional comments about the BRiTE modules please add them here: