Do training programs equip teachers with skills to teach disengaged students?

A preliminary scan

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2013



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1 Introduction

Student disengagement is a growing societal concern and responses to this concern have included a proliferation of re-engagement programs (REPs) across Australia. Evaluations by the Brotherhood of St Laurence (BSL) and anecdotal feedback have suggested that teachers find it extremely difficult to adapt to REP settings and cater for 'high needs' students. This prompted a Research and Policy Centre scan of the extent to which teacher training programs prepare teachers to work in more flexible learning environments. This scan provides a glimpse of whether disjunctures exist between policy, training programs and needs, and whether these can be resolved.

In recent years, increased attention has been given to the effectiveness of teacher training programs in producing capable teachers. In a meta-analysis of the impact of over 800 educational initiatives on student outcomes, Hattie (2009) found that teacher training, in its current state, is one of the least influential initiatives. Hattie lamented this finding and attributed it to their current focus on equipping teachers with subject matter knowledge. He suggested that in order to enhance their effectiveness, teacher training programs should better prepare teachers for the difficulties they may face in the classroom and for 'seeing learning through students' eyes' (p. 111). Similarly, Gonski in the *Review of Funding for Schooling* (2011) suggested that one method for enhancing teaching quality is for teacher training programs to offer their candidates more knowledge on catering for and experience working with disadvantaged students.

In the research, the extent to which teacher training programs prepare teachers to teach disadvantaged, 'at risk' and disengaged students has received limited attention. One study, by Seal (2009), investigated this issue by interviewing 12 Australian graduate teachers, who all indicated feeling inadequately prepared by their training programs to work with this population. This finding matches previous BSL evaluations and policy submissions and forms the basis of the present policy and program-level scan.

2 Methodology

From the literature in the field (DEECD 2009; Myconos 2011; Seal 2009) a list of categories was generated to be used when analysing gathered data¹. These categories represent skills that individual teachers need in order to address student disengagement. Broader skills that would be of value when working with all students (for example, establishing clear expectations, ensuring student safety) were excluded from the list as these were more systemic and did not focus enough on addressing more urgent needs. Nine skills suggestive of addressing higher risk situations and urgent needs were identified and will be referred to in this document as engagement skills. These engagement skills relate to:

- **individual learning needs**: identify/cater to the learning needs of individual students; personalise curriculum to address students' strengths and weaknesses, preferences and learning styles
- **student diversity:** value/respond to the diverse backgrounds and experiences of students, including disadvantaged cohorts; utilise inclusive approaches to education
- holistic wellbeing / mental health needs: understand the role of/promote social and emotional development; identify/address mental health, psychological problems, socialisation issues, interpersonal issues

¹ Based on the approach to qualitative research outlined by AL Strauss (1987).

- **classroom/behaviour management:** understand/apply strategies to prevent/deal with inappropriate student behaviour
- **group / hands-on learning strategies:** develop and use strategies that engage students in peersupported and hands-on learning
- **fostering autonomy and competence:** give students choices in their learning; treat students like adults
- **specialist support:** engage in systematic coordination and communication with welfare workers; utilise access to specialist support
- **targeted interventions:** know how to utilise targeted interventions (educational, behavioural, social-emotional) that are monitored regularly
- **helping at-risk, disengaged students:** understand/address issues regarding the welfare of at-risk students; identify/utilise effective teaching and learning approaches for disengaged students.

The data comprised existing documentation on the requirements for becoming a teacher, which were gathered at two levels: the policy level and the teacher training program level. The following steps were taken to gather the policy level data:

- An internet search was performed to determine which regulatory bodies are responsible for prescribing the standards that teacher training programs must follow to be accredited and at what level (national or state) these bodies operate. The search terms included the following phrase: 'Accreditation of teacher training programs in Australia'.
- The Ministerial Council for Education, Early Childhood and Youth Affairs (MCEECDYA) has approved national standards developed by the Australian Institute for Teaching and School Leadership (AITSL 2011). These standards will be used to accredit teacher training programs across Australia. Although these standards are not yet mandatory, it is expected that all teacher training programs nation-wide will comply with them by 2015. Therefore, the present scan included these national standards.
- At present, teacher training programs are accredited by state teacher regulatory authorities. It was decided that the scope of the present scan would be restricted to the state of Victoria; thus, the standards used by the Victorian Institute of Teaching (VIT 2009) to accredit Victorian teacher training institutions were reviewed.
- Both the national and state accreditation standards include sections on the knowledge and skills that teacher training programs must equip their teacher candidates with before program completion. Since the objective of the present scan was to determine to what extent these sections addressed our engagement skills, the policy-level texts analysed were: (1) AITSL's (2011) *National professional standards for teachers: graduate teachers* and (2) VIT's (2009) *Standards for graduating teachers.*

For the program level, the following steps were taken to gather the appropriate documents:

• A list of VIT-accredited teacher training programs was located on the VIT website (2012). The scan was restricted to programs preparing candidates to teach in conventional, secondary school classrooms. Programs with a focus on primary school teaching or on outdoor and technology education were excluded. All course levels—bachelor's degrees (single and double), graduate diplomas and master's degrees—were included in this scan.

- In total, the sample consisted of 34 teacher training programs (across eight institutions) meeting the above criteria.
- Each teacher training program was analysed at the unit level. To locate the program units, the most recent student handbook or subject database was reviewed. Of primary concern were the required units of the education component, although electives and discipline-specific units were included.

The national and state graduate teacher standards and teacher training program unit descriptions were read, analysed and coded according to the nine engagement skills previously outlined. Relevant data (for example, unit description phrases related to our engagement skills) were entered into a matrix and examined to determine which engagement skills were addressed, the number of times these were addressed, and unanticipated themes in the detailed content.

- See Appendix 1 for the national standards that mentioned our engagement skills.
- See Appendix 2 for the Victorian standards that mentioned our engagement skills.
- See Appendix 3 for examples of phrases from the teacher training programs' unit descriptions that mentioned our engagement skills.

3 Findings

In this section, findings from our data analyses are discussed. The findings will be reported in three parts: (1) at the policy level; (2) at the program level; and (3) at the unit level.

Policy-level findings

Table 1 depicts the findings of the policy-level analyses. Both the national and Victorian standards mandate teacher training programs to equip teacher candidates with three of our engagement skills: identifying/catering to individual learning needs, understanding/responding to student diversity² and classroom management. Only the national standards mention understanding students' holistic development and supporting their wellbeing. Only the Victorian standards require preparation for working with specialists/welfare workers and using cooperative learning approaches. The three remaining engagement skills were not explicitly addressed by either set of standards.

² In the national standards, but not the Victoria standards, there is explicit mention of disadvantaged cohorts, specifically understanding the impact that their socio-cultural characteristics can have on the teaching and learning processes.

Engagement skills	National standards	Victorian standards
Individual learning needs	Х	Х
Student diversity	Х	Х
Holistic wellbeing / mental health	Х	
Classroom/behaviour management	Х	Х
Group and hands-on learning		Х
Fostering autonomy and competence		
Specialist support		Х
Targeted interventions		
Helping at-risk, disengaged students		

Table 1: Which enga	pement skills are i	mentioned in the	national and	Victorian standards?
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Program-level findings

A teacher training program consists of a series of units (or classes), which might be required, elective or discipline-specific. A given unit can be used in more than one program at a particular institution. This is quite often the case for required units. Understandably, it is most often seen between double degrees (e.g., Bachelor of Arts and Bachelor of Education, and Bachelor of Science and Bachelor of Education) as these degrees share the same education components. On occasion, overlap is also seen in the required units of bachelor's degrees and graduate diplomas, and of graduate diplomas and master's degrees—typically, bachelor's and master's degrees do not share many units. At this level of analysis, overlap in the units was not avoided so as to determine which of our engagement skills might be the most or least developed in teacher candidates graduating from each program.

In the present scan, for a program to 'meet' a particular engagement skill at least one required unit had to address that skill. As can be seen in Figure 1, all programs addressed at least one of our nine engagement skills, while the maximum number of skills addressed was seven. The average number of engagement skills addressed by a program was 3.91.

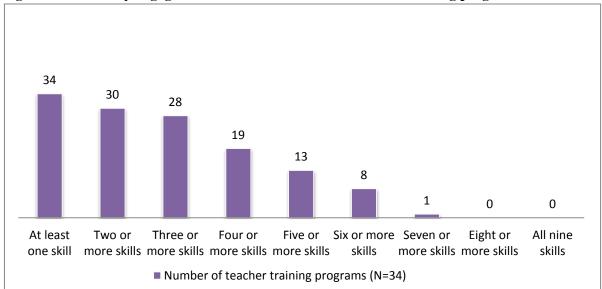


Figure 1: How many engagement skills are addressed in teacher training programs?

As can be seen in Figure 2 below, of the engagement skills mentioned in the national and Victorian standards, half of these are fairly well addressed by teacher training programs: nearly all programs address identifying/catering to individual learning needs, understanding/responding to diversity, and classroom management. The disparity is rather pronounced, however, in regards to the remaining engagement skills mentioned at the policy level: about half of the programs provide training on mental health/holistic wellbeing, less than half discuss coordinating with specialists/welfare workers and only four address cooperative/hands-on learning.

The three engagement skills not mentioned at the policy level are addressed in some programs, but not in most: five programs touch on fostering autonomy and competence; three programs discuss understanding/supporting 'at-risk', disengaged students; and two programs address designing/utilising targeted interventions. To see which engagement skills were addressed by each program reviewed in the present scan, see the table in Appendix 4.

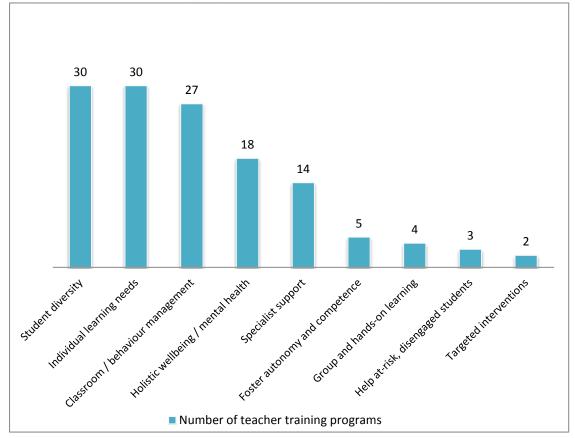


Figure 2: How many training programs address each engagement skill? (N=34)

Unit-level findings

At this level of analysis, the descriptions of units that addressed at least one of our engagement skills were examined. The findings discussed in this section relate to the extent to which each engagement skill was addressed relative to the other engagement skills, noteworthy nuances in the units addressing each engagement skill, themes that were present across several of our engagement skills, and the practical nature of units addressing our engagement skills.

To conduct these examinations, only individual units were considered. That is, each unit was only counted once, even if it was required of more than one teacher training program at an institution. In total, there were 84 individual units across the eight teaching institutions that addressed at least one of our engagement skills – some of these units addressed more than one engagement skill.

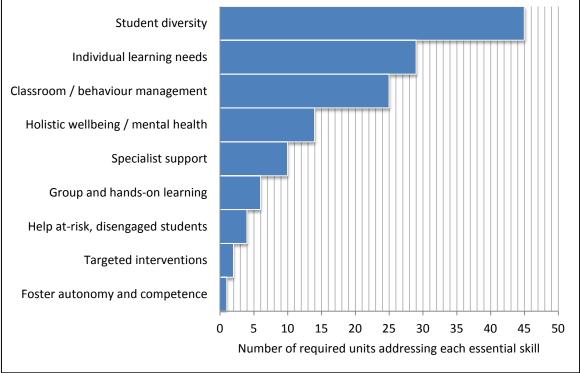
The extent to which each engagement skill was addressed

As can be seen in Figure 3, in the relevant units³, some of our engagement skills appear more or less than the others. The frequency of appearance of each engagement skill may be an indication of the priority it is given by teaching institutions and thus whether it is viewed (intentionally or unintentionally) as critical for effective teaching in the secondary school setting. Findings worth highlighting include the following:

³ 'Relevant units' refer to units that addressed at least one of our engagement skills.

- The most common engagement skills are: student diversity, addressed in over half of these units (n=45); individual learning needs, addressed in about one-third of these units (n=29); classroom / behaviour management, addressed in under one-third of these units (n=25).
- It is interesting that the engagement skills that are more clearly about intervention, rather than prevention, are among the least addressed of the engagement skills (for example, specialist support (n=10); help 'at-risk', disengaged students (n=4); and targeted interventions (n=2).
- The other least addressed engagement skills refer to teachers going beyond conventional pedagogical approaches to using strategies that are more interactive, collaborative and negotiated (that is, group/hands-on learning (n=6); fostering autonomy and competence (n=1).





Exploring the nuances of unit descriptions addressing each engagement skill Upon inspecting the unit description content more closely, some further observations can be made about the units addressing each engagement skill:

• Student diversity was usually mentioned in the unit descriptions in fairly general terms. That is, it might involve training teacher candidates to be inclusive of all students, without explicit indication of the cohorts that might be discussed. In some instances units more explicitly mentioned socio-cultural diversity, usually referring to diversity associated with gender, ethnicity and religion. Even less often, *disadvantaged* cohorts were explicitly mentioned. When they were, it was usually in reference to Aboriginal students, but other groups included students with special needs, students whose first language is not English and students from families of low socioeconomic status. Moreover, across the units addressing student diversity, diversity was often mentioned in relation to its impact on learning; rarely was it discussed in relation to its impact on behaviour or social inclusion. Perhaps, then, teacher candidates may be trained to notice the risk of disengagement through poor grades, but not through means less

directly related to academic performance such as being less engaged with peers or exhibiting challenging behaviour.

- For units referring to individual learning needs, it was not always clear in the descriptions whether teacher candidates are trained to be flexible and vary learning activities at the individual level upon noticing that lessons are not resonating with particular students or trained to develop curriculum that is mindful of an array of learning styles/multiple intelligences. The former may indicate a personalised approach that requires acute attentiveness by the teacher, while the latter may be a more pre-emptive, preventive approach that deals with students in groups. Using either approach in the classroom would certainly have its benefits. However, it may be suggested that treating students as individuals, rather than generalised representatives of any particular group, would be most advantageous to each person's learning and development, as their unique strengths, weaknesses and interests would be acknowledged. Yet, almost no units on individual learning needs explicitly mention bearing in mind individual interests or preferences when choosing teaching methods.
- For units addressing classroom/behaviour management, the descriptions tended to be vague and use the term 'classroom management' without any elaboration on what the training entails. In general, classroom management can encompass a number of techniques, such as being concerned with the physical arrangement of the classroom, addressing the underlying causes of concerning behaviour (for example, difficulties understanding the curriculum, interpersonal issues) or using disciplinary tactics to address disruptive behaviour. Thus, classroom management techniques can be used to prevent or intervene in disengagement, but some techniques could even have adverse effects and further disengage students (see Seal 2009). Rarely did a unit explicitly state what type of discipline is advocated or what techniques teacher candidates would be trained to use.
- Among the units addressing holistic wellbeing / mental health, the majority referred to reflecting on theories of adolescent development and wellbeing from various perspectives (for example, physical, social, emotional, psychological and cognitive). Some units discussed understanding the external factors (such as family, school) that influence wellbeing, understanding the impact of students' wellbeing on their learning and the relevant pedagogical options, or reflecting on personal attitudes and actions towards health/wellbeing (without unpacking these terms). Only one unit explicitly referred to more urgent issues that adolescents may struggle with (such as anxiety, depression, low self-concept, poor communication skills, bullying).
- For units addressing specialist support, the descriptions tended to mention training in networking and communicating with educational professionals to assist student learning. A couple of units referred to understanding the role of and learning to work with Student Welfare Coordinators.
- Of the units addressing group/hands-on learning strategies, half referred to designing curriculum that involves cooperative, group learning, and the other half referred to training in the use of applied learning strategies. Teacher candidates enrolled in these units may be able to deliver lessons that involve scaffolding knowledge among diverse students and offer practical skills.
- Of the units that addressed helping at-risk, disengaged students, two discussed issues related to at-risk students (for example, factors impacting school attendance, the trajectory of at-risk students in school and work). The other two units included identifying teaching/learning strategies that effectively engage such students.

- Of the two units that addressed targeted interventions, one was a social work unit that did not specify whether the interventions were educational, behavioural, or social-emotional in nature and whether this training could be translated to the classroom setting. The other unit mentioned explicitly that the intervention strategies to be discussed and designed are education-focused. Neither unit indicated that training would be provided on monitoring the effectiveness of the interventions.
- The only unit that addressed fostering autonomy and competence specifically referred to learning to work collaboratively with students and negotiating the development of lessons. In t, teacher candidates may learn to give students a voice in the learning tasks they engage in, which may enhance students' interest and expectations for success.

Overarching theme across a few engagement skills

When analysing the units that discuss individual learning needs, student diversity, or holistic wellbeing/mental health, an overarching theme emerged. Some unit descriptions mention offering training only to be aware of students' needs or differences (identifying learning needs, understanding diversity, identifying influences on wellbeing), but not also to respond to these needs or differences (catering to learning needs, responding to diversity, promoting wellbeing). See Table 2 for examples of unit description phrases that correspond with this theme.

Engagement skill	Phrases only about awareness of needs/ differences	Phrases about both awareness of and response to needs/differences
Individual learning needs	' identify the prior knowledge, the learning strengths and weaknesses of students, and other factors which impact on learning' ^a	'The unit enables preservice teachers to employ a range of teaching approaches which caters for different learning styles' ^b
Student diversity	'Pre-service teachers will also investigate the impact of social, cultural, gender and religious diversity on student learning of mathematics' ^c	" develop and reflect on strategies that acknowledge and cater for diverse cultural, religious and socio- economic factors influencing students" ^d
Holistic wellbeing/ mental health	' analyse multidimensional facets of influence (motivations; self-esteem; anxiety, stress, coping; biological processes; cognition; moral development; development of the self; additional issues including substance abuse, deviance, depression, truancy, bullying and resilience)' ^e	'Students analyse and apply knowledge of recent advances and contemporary perspectives within the field of education with a particular focus on student wellbeing' ^f

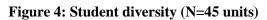
Table 2: Unit descriptions addressing only awareness of, or both awareness of and response to, students' needs/differences

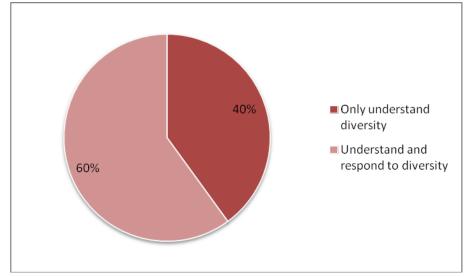
Sources:

- a Monash University, EDF4731 Professional experience 1B
- $b\ Australian\ Catholic\ University,\ EDFX512-Graduate\ Professional\ Practice\ Secondary\ 2$
- c Victoria University, AEB2110 Teachers Knowing Students
- d Monash University, EDF4731 Professional experience 1B
- e Monash University, EDF3006 Adolescent Development and Learning
- f La Trobe University, EDU4CCE Changing Contexts in Education

Upon exploring this theme further, it was found that:

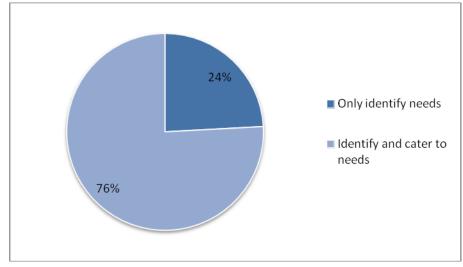
• Of the 45 units that address the general category of student diversity, 40 per cent only discuss *understanding* diversity without also addressing *responding* to student diversity (see Figure 4).





• Of the 29 units that address the general category of individual learning needs, 24 per cent only discuss *identifying* the individual learning needs, without also addressing *catering* to these learning needs (see Figure 5).

Figure 5: Individual learning needs (N=29 units)



• Of the 14 units that address the general category of holistic wellbeing / mental health, 71 per cent discuss only *identifying* development or issues in this area, without also *addressing* development or issues (see Figure 6).

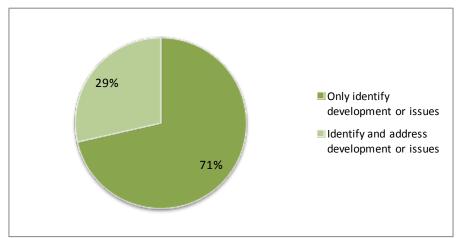


Figure 6: Holistic wellbeing/mental health (N=14 units)

This theme further highlights the possible disjuncture between training and needs. Although it was found in the present scan that the majority of the units addressing student diversity and individual learning needs did address both the awareness of and response to differences and needs, it is worth highlighting the proportion of units that appear to exclude the latter as a cautionary note. This should be coupled with the findings of the study by Seal (2009), in which a number of graduate teacher participants indicated that they learned a bit about *understanding* both the learning needs of particular student groups and student diversity generally, but that the training was superficial and did not equip them with practical skills to work with these needs and differences. This will be discussed further in the section on limitations and future directions, but it raises questions about lipservice, which should be explored by examining other sources beyond unit descriptions to gain a better understanding of what is actually taught in the units.

In the case of holistic wellbeing / mental health, this finding that the large majority of the units do not identify and address development and issues could indicate a mismatch between the role training programs think teachers will be playing and the role that teachers are playing out of necessity. That is, most teachers do encounter students who need support in dealing with interpersonal and mental health issues, so pre-service training in this area would be valuable. A reasonable counter-argument might be that it is not the responsibility of teachers to deal with such issues. In response to this argument, teacher training programs should then, at the very least, ensure that they develop teacher candidates' engagement skill of using specialist support, giving them the knowledge and skills to work with the student welfare workers who can effectively support such student issues.

Practical nature of units discussing engagement skills

Of the units that address at least one engagement skill, few involve a school-based component that would allow teacher candidates to apply these skills. This is congruent with a finding in Seal's (2009) study, in which graduate teachers reported that their training did not equip them with the practical skills required to address various student needs. In the present scan, for instance, understanding/responding to student diversity is the most frequently addressed engagement skill across the units, with 45 units addressing this skill (see Figure 3 above); however, only a few of

these units involve a school-based component. Overall, training related to the engagement skills may often be restricted to reflecting on theories and strategies, with little chance of application in real classrooms, with diverse student groups, under the guidance of a mentor.

Electives and optional units

In contrast to their required units, some training institutions rely on electives or optional units4 to tackle student disengagement more deliberately. Indeed, many of these unit descriptions had a greater sense of urgency, referring to topics such as addressing social problems, supporting students with behaviour issues (for example, conduct disorders), understanding the underlying causes of challenging behaviours and utilising teaching strategies to address the learning needs of students exhibiting such behaviours. When holistic wellbeing / mental health was a topic in the electives or optional units, these units most often discussed addressing mental health or interpersonal issues and using strategies to enhance wellbeing rather than only understanding these areas. Moreover, electives that touched on individual learning needs and student diversity rarely focused only on awareness of needs and differences, but typically included responding to these as well.

4 Suggestions for policy and training programs

The present scan involved a preliminary examination of the national and Victorian standards and of Victorian teacher training programs to determine the extent to which training includes the skills deemed essential for working with 'at-risk', disengaged students. Given the increased recognition of the importance of re-engagement, it is suggested that a number of improvements be made.

It is recommended that policy makers review the accreditation standards to determine if enough attention is paid to developing teacher candidates' skills for working with at-risk, disengaged students. Moreover, it is recommended that the relevant members of the accreditation bodies and teacher training coordinators investigate the possible mismatch highlighted in this scan between policies and training programs, especially to ensure that the standards related to addressing student disengagement are addressed in the training.

It is also recommended that teacher training coordinators review current courses to consider whether skills on addressing student disengagement are receiving enough attention and to consider the quality of the attention when these skills are addressed. To reiterate a few findings from the present scan:

- A number of the engagement skills are hardly addressed by the teacher training programs.
- A fair proportion of units that address individual learning needs, student diversity, or mental health/holistic wellbeing describe training only on being aware of students' needs or differences, but not also on responding to these.
- Few units that address the engagement skills involve a school-based component that would allow for application of these with diverse student groups under a mentor's guidance.
- Finally, many units that address our engagement skills are shared by several discipline-specific programs and address several unrelated topics within a short time span (each unit typically involves 16 to 36 contact hours).

⁴ An optional unit refers to the units associated with particular disciplines that teacher candidates can choose to pursue (e.g., history versus mathematics).

Taken together, training related to the engagement skills appears to be largely theoretical, with practical strategies and experiences being neglected at times; general rather than integrated with specific curriculum content; and of low priority compared with other topics. It is recommended that teacher training coordinators reflect on these potential issues and make adjustments where necessary.

A final suggestion is for teacher training coordinators to reconsider whether some units that address some of our engagement skills should be electives—or only available to certain disciplines in a program—or whether these should be required.

Two programs stood out in this scan: the Bachelor of Outreach and Community Education at La Trobe University and the Graduate Diploma of Education (Applied Learning) at Deakin University. Both programs provide training on nearly all of our engagement skills, including understanding issues related to 'at risk' students. Given the increased recognition of the importance of re-engagement, it is suggested that teacher training programs re-prioritise the skills with which they equip their teacher candidates, perhaps using these two programs as exemplars.

5 Limitations and directions for future research

Because this scan was preliminary, our program review was restricted to unit descriptions. We are aware that there are some limitations in only reviewing unit descriptions. Firstly, a unit description is a brief summary of the topics addressed, rather than an exhaustive description of the unit content. So while analyses of these descriptions might be thorough, they may not provide the most comprehensive picture.

Secondly, relying on unit descriptions means that interpretations were based on semantics alone (that is, the meaning of words used in the unit descriptions). There is a chance that the distinctions made and the meaning arrived at in the present scan may be different from the unit description author's approach and intended meaning. For instance, the author may not have been cognisant of the distinction made in the present scan between being *aware* of students' needs or differences and being able to *respond* to the needs or differences. Thus, both might actually be addressed in the unit, but may not have been explicated in the description. Conversely, there is the risk that the unit description could include topics that *might* be addressed or that have been offered in the past, but the lecturer might not get around to addressing every topic in the unit description. It was decided, however, that unit descriptions do provide some insight into the precedence given to our engagement skills across the teacher training programs and implicit partialities might be discovered. It is suggested that a more comprehensive study could use other sources of information such as syllabi and reading lists to develop a more nuanced perspective of the unit content, and interviews with staff members to determine whether unit descriptions were interpreted as they were intended.

It is also suggested that future research include in its sample teacher training programs that offer qualifications to teach in primary schools and disciplines beyond the conventional classroom setting (e.g., outdoor education). This might provide insight into whether at-risk, disengaged students are supported from a young age and in many settings at school.

It is also suggested that future research consider whether it would be beneficial to tease apart preventive approaches that engage all students from intervention-based approaches that attempt to identify at-risk students and re-engage those who are already disengaged (see Seal 2009). The present scan tried to take some account of this by excluding broader teacher skills that contained less urgent language around disengagement (for example, establishing clear expectations, ensuring student safety). However, some of the unit details receiving our engagement skill codes were similar to phrases listed as prevention-based approaches in Seal's (2009) report (for example, utilising cooperative learning strategies, accounting for students' prior knowledge when designing curriculum). Perhaps particular prevention-based approaches should be avoided when reviewing teacher training program units, to allow for an even clearer understanding of the extent to which programs develop the skills needed to work specifically with students in *urgent* need of assistance. It is not suggested, however, that all prevention-based approaches be excluded from future research: Seal (2009) noted that such approaches can be used to effectively re-engage disengaged students as well.

Appendix 1: National standards addressing the engagement skills

Engagement skill	National standards
Individual learning needs	 Under Standard 1 – Knows Students and How They Learn, which applies to professional knowledge gained in specific subjects: 1.5) Demonstrate knowledge and understanding of strategies for differentiating teaching to meet the specific learning needs of students across the full range of abilities. 1.6) Demonstrate broad knowledge and understanding of legislative requirements and teaching strategies that support participation and learning of students with disability. Under Standard 3 – Plan for Implement Effective Teaching and Learning, which applies to the supervised professional practice: 3.1) Set learning goals that provide achievable challenges for students of varying abilities and characteristics.
Student diversity	 Under Standard 1 – Knows Students and How They Learn, which applies to professional knowledge gained in specific subjects: 1.3) Demonstrate knowledge of teaching strategies that are responsive to the learning strengths and needs of students from diverse linguistic, cultural, religious and socioeconomic backgrounds. 1.4) Demonstrate broad knowledge and understanding of the impact of culture, cultural identity and linguistic background on the education of students from Aboriginal and Torres Strait Islander backgrounds. Under Standard 4 – Create and Maintain Supportive and Safe Learning Environments, which applies to the supervised professional practice: 4.1) Identify strategies to support inclusive student participation and engagement in classroom activities.
Holistic wellbeing/ mental health	 Under Standard 1 – Knows Students and How They Learn, which applies to professional knowledge gained in specific subjects: 1.1) Demonstrate knowledge and understanding of physical, social and intellectual development and characteristics of students and how these may affect learning. Under Standard 4 – Create and Maintain Supportive and Safe Learning Environments, which applies to the supervised professional practice: 4.4) Describe strategies that support students' wellbeing and safety working within school and/or system, curriculum and legislative requirements.
Classroom/behaviour management	 Under Standard 4 – Create and Maintain Supportive and Safe Learning Environments, which applies to the supervised professional practice: 4.3) Demonstrate knowledge of practical approaches to manage challenging behaviour.
Group/ hands-on learning	None
Fostering autonomy and competence	None
Specialist support	None
Targeted interventions	None
Helping at-risk, disengaged students	None

Source: AITSL 2011

Appendix 2: Victorian standards addressing the engagement skills

Engagement skill	Victorian standards
Individual learning needs	 Under Standard 3 – 'Teachers know their students', which applies to professional knowledge gained in specific subjects: – Know how to identify the prior knowledge, the learning strengths and weaknesses of students, and other factors which impact on learning. Under Standard 6 – 'Teachers use a range of teaching practices and resources to engage students in effective learning', which applies to the supervised professional practice: – Use a range of teaching approaches which cater for different learning needs and respond flexibly to the dynamics of the classroom.
Student diversity	 Under Standard 3 – 'Teachers know their students', which applies to professional knowledge gained in specific subjects: Have an understanding of cultural and religious diversity and of socioeconomic factors which may influence the students they teach. Under Standard 5 – 'Teachers create and maintain safe and challenging learning environments', which applies to the supervised professional practice: Be aware of and can use a range of strategies to establish a positive and inclusive learning environment where all students can learn and are challenged.
Holistic wellbeing/ mental health	None
Classroom/ behaviour management	Under Standard 3 – 'Teachers know their students', which applies to professional knowledge gained in specific subjects: – Be aware of teaching and classroom management challenges and develop appropriate professional responses to them.
Group/ hands-on learning	Under Standard 6 – 'Teachers use a range of teaching practices and resources to engage students in effective learning', which applies to the supervised professional practice: – Use a range of teaching approaches which foster independent and cooperative learning
Fostering autonomy and competence	None
Specialist support	 Under Standard 5 – 'Teachers create and maintain safe and challenging learning environments', which applies to the supervised professional practice: – Work cooperatively and purposefully with colleagues and other professionals who share responsibility for the learning and welfare of their students.
Targeted interventions	None
Helping at-risk, disengaged students	None

Appendix 3: Sample phrases from the unit descriptions, for each engagement skill

Engagement skill	Sample phrase from unit description
Individual learning needs	'Topics to be addressed in this unit include: Pedagogical strategies appropriate for working with young adults, including working with individual learning needs' ^a
Student diversity	'The aim of this unit is to ensure that teacher education students develop understandings of and expertise in working with diverse student cohorts' ^b
Holistic wellbeing/mental health	'Students explore, develop and reflect on their attitudes and behaviours towards their own and other people's physical, mental, social, emotional environmental and spiritual health and overall well-being' ^c
Classroom/behaviour management	'The unit will focus on classroom management strategies, including a variety of discipline and pedagogical skills' d
Group/hands-on learning	" develop strategies which encourage students to learn cooperatively with their peers in classrooms characterised by personal and cultural diversity" ^{e5}
Fostering autonomy and competence	developing collaborative, integrated and negotiated curriculum' ^f
Specialist support	'networking with teachers and others involved in the education of young people including support agencies and resource people for teachers' ^g
Targeted interventions	'Identify, design and defend differentiated and focussed intervention strategies for each student [for content]' ^h
Helping at-risk, disengaged students	'In this subject students address issues concerning the welfare of students conventionally designated as 'at risk'. The role of schooling, work and student destination are discussed, along with the development of youth cultures and the interaction between youth and mainstream cultures' ⁱ

Sources:

a Deakin University, EEJ724 - Teaching for Pathways Into Tertiary Study

b Deakin University, EXC440- Teaching Diversity

c La Trobe University, EDU1CW- Concepts of Wellbeing

d Victoria University, AEG5109- Approaches to Teaching and Learning 1

e Victoria University, AEB3301- Inquiry Into Adolescent Teaching and Learning

f Monash University, EDF2005- Professional Responsibilities, Practice and Relationships

g Deakin University, ECJ721– Introduction to Teaching in the Middle Years

h University of Melbourne, EDUC90409– Assessment, Learning and Teaching

i La Trobe University, EDU4SWB- Student Welfare Method B

Appendix 4: The engagement skills addressed by each teacher training program

University and qualification	Individual learning needs	Student diversity	Holistic wellbeing/ mental health	Classroom/ behaviour management	Group and hands-on learning	Fostering autonomy and competence	Specialist support	Targeted interventions	Helping at- risk, disengaged students
Australian Catholic University									
Bachelor of Teaching / Bachelor of Arts (Humanities) Melbourne	X	Х		Х					
Bachelor of Teaching/Bachelor of Arts (Mathematics) Melbourne	Х	Х		Х					
Graduate Diploma in Education (Secondary)	Х	Х		Х					
Master of Teaching (Secondary)	Х	Х		Х					
Deakin University									
Bachelor of Health and Physical Education	Х	Х		Х					
Bachelor of Teaching (Secondary)/Bachelor of Arts	Х	Х	Х	Х	Х		Х		
Bachelor of Teaching (Science)/Bachelor of Science	Х	Х	Х	Х			Х		
Graduate Diploma of Education (Applied Learning)	Х	Х		Х	Х		Х		Х
La Trobe University									
Bachelor of Teaching (Secondary)	Х	Х	Х	Х			Х		
Bachelor of Outreach and Community Education	Х	Х	Х	Х			Х	Х	Х
Bachelor of Arts / Bachelor of Arts Education	Х	Х	Х	Х					

University and qualification	Individual learning needs	Student diversity	Holistic wellbeing/ mental health	Classroom/ behaviour management	Group and hands-on learning	Fostering autonomy and competence	Specialist support	Targeted interventions	Helping at- risk, disengaged students
Bachelor of Sciences / Bachelor of Science Education	Х	Х	Х	Х	_				
Bachelor of Physical and Health Education	Х	Х	Х	Х			Х		
Graduate Diploma in Education (Middle Years)			Х		Х				
Graduate Diploma in Education (Secondary)		Х	Х	Х					
Master of Teaching (P-12)	Х	Х		Х					
Monash University									
Bachelor of Arts and Bachelor of Education – Secondary	Х	Х	Х	Х		Х	Х		
Bachelor of Commerce and Bachelor of Education	Х	Х	Х	Х		Х	Х		
Bachelor of Science and Bachelor of Education – Secondary	Х	Х	Х	Х		Х	Х		
Bachelor of Music and Bachelor of Education	Х	Х	Х	Х		Х	Х		
Bachelor of Visual Arts and Bachelor of Education – Secondary	Х	Х	Х	Х		Х	Х		
Bachelor of Education (P-10)	Х	Х	Х						
Graduate Diploma of Education – Secondary	Х	Х		Х					Х
Master of Teaching (Secondary)	Х	Х	Х	Х					
University of Melbourne									
Master of Teaching (Secondary)	Х	Х		Х			Х	Х	

University and qualification	Individual learning needs	Student diversity	Holistic wellbeing/ mental health	Classroom/ behaviour management	Group and hands-on learning	Fostering autonomy and competence	Specialist support	Targeted interventions	Helping at- risk, disengaged students
University of Ballarat									
Bachelor of Arts / Bachelor of Education	Х	Х							
Bachelor of Mathematical Sciences / Bachelor of Education	Х								
Bachelor of Science / Bachelor of Education	Х								
Bachelor of Visual Arts / Bachelor of Education	Х								
Graduate Diploma of Education (Secondary)	Х	Х	х	Х					
Bachelor of Education (P-10)		Х							
Victoria University									
Bachelor of Education (P-12)	Х	Х		Х	Х		Х		
Graduate Diploma in Secondary Education		Х	Х	Х					
RMIT									
Graduate Diploma of Education (Secondary)	Х	Х		х			Х		
Total number of programs that address each skill	30	30	18	27	4	5	14	2	3
Percentage of programs that address each skill	88%	88%	53%	79%	12%	15%	41%	6%	9%

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