Education Services Australia

Education Services Australia Response to the Quality Initial Teacher Education Review Discussion Paper

July 2021

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Introduction

Education Services Australia (ESA) is a not-for-profit company owned by all Australian education ministers. ESA uses a combination of education and technology expertise to create and deliver national solutions that further education reform in Australia and contribute to improved student outcomes, enhanced teacher impact and stronger school communities.

ESA has a unique and critical role within the Australian education system to collaborate with all Australian education jurisdictions to develop and administer education technology platforms and products made available to all Australian students, teachers, and school communities.

Education Services Australia (ESA) welcomes the opportunity to contribute to this important discussion.

Response to select questions

This response primarily draws on ESA's expertise in developing digital teaching and learning resources for teachers and students and systems more broadly.

This response focuses on those sections of the discussion paper where we can share observations and learnings on the opportunities and challenges or barriers in developing teacher cultural competence and the role of digital technology.

In its work, ESA has conducted research on best practice and commissioned independent reviews of its services to ensure that development and improvement are evidence-based.

ESA welcomes the opportunity to hold further discussions on the role of digital technologies to support the quality of ITE in Australia.

Part A: Attracting high-quality candidates into ITE matters

1. Attracting high quality candidates into ITE matters

- ***What can be done to attract more high achievers and career changers to the profession?***

It will be crucial for Australia to capture the moment presented by the COVID-19 pandemic to raise the standing of the teaching profession when developing and implementing initiatives to attract high achievers and career changers into teaching. Now that the work of teachers has become more visible through the learning at home experience, social media and mainstream media campaigns, there is evidence of increased positive perceptions of teachers and the wider teaching profession. The COVID-19 situation also has the potential to influence the number of people turning to teaching as a second career (Dadvand et al., 2020; Heffernan et al., 2021).

This shift in positive perceptions of teachers' work is reflected in the ESA *Voice of Education Research Report 2020* findings, highlighting how the need to provide alternatives to classroom-based learning sparked a renewed appreciation of the vital role educators play in our community (ESA, 2021).

The joint effort made by teachers, schools and parents created a stronger sense of community, with everyone coming together driven by a clear purpose for the students. With rolling lockdowns, education systems and schools are prioritising the use of technology to boost engagement and enhance collaboration, ensuring effective and efficient

Information, Communication and Technology (ICT) infrastructure and maximising online safety in school settings (OECD, 2021).

ESA recommends that the Review process harnesses the opportunity presented by the COVID-19 pandemic to raise the standing of the teaching profession when developing and implementing initiatives to attract high achievers and career changers into teaching.

- ***What factors influence the higher education course selection of high-performing school students?***

ESA's experience developing and managing online career exploration tools and pathways information for young people, families, teachers and career counsellors provides insight into the factors influencing young people's career and study pathways.

Recent research indicates that career conversations aren't shifting in line with the rapid changes in work, and they are often strikingly gendered (Vernon et al.,2020). Career influencers, including parents, carers, teachers and career counsellors, need to support young people in developing self-awareness to make a good pathway and career choices – particularly within a constructive framework, such as a growth mindset. All students, including high achievers, who develop a growth mindset may consider a broader range of career options and of ways of achieving their aspirations.

Both myfuture and The Girls in STEM Toolkit (The GiST) provide a range of resources for teachers, career practitioners and parents and carers to help key influencers support students to explore options, plan career pathways and discover possibilities.

As an example, teacher quality is crucial for stimulating school students' interest and passion for STEM. The flow-on effect is more and better prepared, students undertaking STEM at tertiary level, to provide the pipeline for the next generation of STEM teachers and other STEM professionals. Research undertaken as part of the The Girls in STEM Toolkit (The GiST) and the myfuture websites indicates that girls often have a 'fixed mindset' when it comes to STEM. That is, if they struggle with aspects of STEM learning, they presume they cannot succeed in it. Teachers can support girls' engagement, achievement and career choices in STEM by explicitly teaching and encouraging a growth mindset (The GiST).

There is an opportunity to expand the role and influence of career educators and to support classroom teachers to take a more active role in promoting teaching as a career, particularly in disciplines such as mathematics and science.

ESA recommends that career education in schools be part of a multi pronged approach to promote teaching as a career choice for school leavers.

- ***What features of the current ITE system may prevent high-quality mid to late career professionals transitioning to teaching?***

Factors such as the image and status of teaching in society, working conditions in schools, requirements for entry into ITE influence the supply of prospective teachers, both in terms of quantity and quality (OECD, 2021). In addition to intrinsic motivations influencing career changers, extrinsic factors, such as pay, working conditions and career prospects, and intense competition from other professions, are critical influences for academically talented people and oriented towards helping others (OECD, 2021).

Transitioning career professionals have found ITE institutions inflexible in responding to their needs, including juggling family and work commitments. Additionally, there is inconsistency in how institutions recognise career changer's prior experiences and related knowledge and skills (Varadharajan, 2018).

There is an opportunity to reframe the value of the teaching profession for transitioning career professionals presented by the COVID-19 situation and the accelerated digital innovation in teaching and learning to attract

professionals and support their transition into the profession in ways that better recognise and accommodate their stage of life.

- ***How could more high-quality candidates from diverse backgrounds be encouraged to consider a career in teaching?***

Digital technologies have the potential to overcome limitations arising from educational and social disadvantage by increasing the range and amount of career opportunities available to students, including teaching.

ESA stakeholders expressed a need to embed career education more centrally into the curriculum, to ensure the education sector was better preparing students from all backgrounds to transition to post-secondary education or the world of work (ESA, 2021).

The shift to online learning nationally presents an opportunity to explore how secondary school work experience in education settings could be delivered via an online national work experience platform. ESA has scoped a "virtual workplace learning" program in partnership with industry to expand opportunities for geographically and socioeconomically disadvantaged students to address stakeholder priorities.

ESA recommends that further research be undertaken to explore increased access for students to undertake meaningful work experiences in teaching using digital technologies in partnership with schools.

- ***How could more Aboriginal and Torres Strait Islander people be encouraged and supported to choose a career in teaching?***

In ESA's experience, partnering with First Nations communities is essential to building relationships and work in partnership with Aboriginal and Torres Strait Islander people, communities, and organisations to ensure they have an active and critical role in education.

ESA has partnered with the Stronger Smarter Institute to deliver the Australian Government's English Language Learning for Indigenous Children (ELLIC) trial to improve outcomes for Aboriginal and Torres Strait Islander preschool children for whom English is an additional language or dialect. The project involves developing a series of play-based apps for children in the year before full-time school, together with resources for educators, families and communities that are co-designed and aligned to the Early Years Learning Framework and the Australian Curriculum: Foundation.

Integral to the project is building cultural awareness and safety, examining bias, co-design and shared responsibility for change, privileging Indigenous research methodologies and Indigenous ways of being, doing and knowing.(Stronger Smarter Institute, 2020).

Opportunities to participate in co-design and partnering projects that privilege Indigenous research methodologies to develop and design education programs in schools offer an attractive avenue to draw Aboriginal and Torres Strait Islander peoples into the teaching profession.

2. Does the supply of teachers entering the workforce match areas of need?

- ***Why are STEM teachers not teaching STEM subjects? Is this an issue for other subject areas?***

The issue of STEM teachers not teaching STEM subjects is complex, with various institutional, school and teacher factors contributing to the problem (Shah et al., 2020). Attracting and retaining high quality and qualified STEM teachers is an Australia-wide issue. However, teacher shortages are more common in non-metropolitan areas and for schools with more significant numbers of lower SES students.

In-time and accessible professional learning is essential for STEM pedagogy because of the rapid change in technology and new knowledge in these subjects and may assist in addressing teacher shortages.

There is a role for partnership arrangements between universities, teacher training organisations, subject associations and national agencies such as ESA to develop appropriate professional development activities that allow teachers to acquire subject qualifications.

ESA recently partnered with the University of Adelaide to deliver the Australian Government funded Maths in Schools: Teaching and Learning Resources to Support Mathematics (Maths in Schools) project. This project will develop and deliver a series of mathematics Massive Open Online Courses (MOOCs) for teachers supporting face-to-face professional learning and providing a repository of teaching and learning resources through an online Mathematics Hub and a Year 1 online numeracy check. The Mathematics Hub will bring together existing quality, evidence-based resources and provide quality assured learning resources aligned to the Australian Curriculum to support teachers, school leaders, students, parents and carers. The Hub will provide high-quality resources to teachers and students from all backgrounds, including underrepresented cohorts in STEM fields (girls and women, those living in rural and remote locations, and Aboriginal and Torres Strait Islander people).

Part B: Preparing ITE students to be effective teachers

3. Are graduate teachers ready for the classroom?

Equipping pre-service and graduate teachers with digital litracy and technology skills is now regarded as a vital element of any ITE program to capacitate the new teachers to meet the educational demands of the 21st-century.

An identified challenge for ITE providers and programs is sourcing and connecting to examples of effective practice in the use of digital technologies to support learning and building confidence among graduates. Despite ITE students and graduates being members of the digital generation, this does not translate directly into an ability to effectively integrate technology in the classroom. They have a continued reliance on a transmissionist approach to teaching (Eagan, 2020).

ITE programs should reflect how technology can amplify great teaching and empower graduate teachers to work collaboratively and build digital literacy and capability using technology in the classroom and remote learning.

ESA recommends that acknowledging the diversity of ITE programs, given they are designed and delivered in context, there is an opportunity to support graduate readiness through online professional learning explicitly designed for ITE students. Building on existing resources designed specifically for this purpose, these programs could supplement program content or cover areas adjacent to the program content where a baseline knowledge will increase confidence, effectiveness, impact and consistency, for example:

- topics graduates find most challenging or wish they had known before heading into the classroom for the first time, such as teacher/student wellbeing and resilience, student engagement and behaviour management, and assessment practices.
- a suite of professional learning modules freely available and purpose-built for pre-service and recent graduates, such as:
    - curriculum /teaching and learning practice support in numeracy (Mathematics Hub and Maths in Schools MOOCs), literacy (Literacy Hub, and STEM teaching (The GiST, Mathematics Hub and Maths in Schools MOOCs)
    - Digital pedagogy – integrating digital technologies and digital literacy into practice and across the curriculum, ensuring their students move from being consumers of digital products to producers of digital solutions.

- Digital safety – basic understanding of online safety covering choice and use of applications and programs
- Supporting student wellbeing and diverse cohorts (Student Wellbeing Hub, in development - Autism resources project, potential development - AITSL cultural competency in education settings).

- ***Are the Australian Professional Standards for Teachers (Teacher Standards) fit for purpose in identifying the key skills and knowledge pre-service teachers need to be ready for the classroom? Do the Teacher Standards adequately reflect the role of teachers in supporting pre-service and graduate teachers?***

The Teacher Standards are a valuable overarching guide to what effective graduates should know and practice on course completion. However, as education systems develop and implement digital education strategies and teacher responsibilities have expanded in the use of digital technologies to make learning more adaptive and flexible, it is timely to review the Standards for their application in contemporary education settings (AITSL, 2020, New South Wales Government,2017).

The shift to remote learning, the increased availability and use of digital technologies in teaching and learning, and online safety, highlight the criticality of supporting pre-service teachers to effectively use digital technologies in teaching and learning programs.

ESA recommends that the Standards are reviewed to incorporate contemporary evidence-based teaching practices using digital technologies and knowledge and skills in the safe and effective use of education technology.

- ***Are ITE programs preparing graduates for teaching diverse student cohorts, including through cultural competency and inclusive education?***

Digital technologies offer the potential to empower and support the creation of new culturally responsive learning resources and environments for Aboriginal and Torres Strait Islander students. Additionally, partnering with Indigenous communities is essential to building cultural awareness, safety and inclusive practices into the design and development and use of digital content, resources and education technology platforms.

For example, there is a role for ITE courses to prepare teachers to teach First Nations students and assess them against a set of cultural competencies informed by First Nations people and communities. Part of this training could focus on the culturally appropriate ways to use digital technologies and content to meet the needs of diverse learners and promote the learning of Aboriginal and Torres Strait Islander histories, languages, knowledges, and culture in education settings.

ESA recommends that:

- Further research and evaluation into frameworks and methodologies to embed digital technology as part of the solution to build pre-service teacher competency to teach diverse student cohorts effectively
- ITE programs explicitly teach culturally appropriate ways of employing digital technologies in education settings, and
- ITE and teacher professional learning focus on the culturally appropriate ways to use digital technology to support the teaching of First Nations languages and cultures in schools.

- ***Do the current professional experience arrangements support the preparation of ITE students for the classroom and school environment? How could these be improved?***

In the current environment of rolling lockdowns, education systems across Australia adjusted to meet the need of schools, ITE providers and teacher registering authorities to support the TPE. It will be essential that current and

future pre-service teachers have the opportunity to build proficiency and capability to effectively integrate digital technologies into their synchronous and asynchronous teaching practice. Including competency as critical uses and creators of digital technologies and manage online privacy and data security.

However, as research highlights, ITE education and in-service initiatives, such as professional experience arrangements, are essential in preparing pre-service teachers to integrate ICT into their classroom practice. The classroom and school environments in situ and online are critical to promoting innovative teaching practices. Schools that encourage staff to lead new initiatives offer a fertile environment for integrating ICT into classroom practice (OECD, 2020).

- ***How can professional experience be delivered in a more efficient way for school systems and higher education providers?***

ESA is interested in exploring whether the professional experience could be delivered online in a national work experience platform that allows for hybrid delivery modes.

ESA is uniquely positioned to support any activity that focuses on the design, development or procurement and implementation of an online platform and facilitate discussion and potential investment at a national level.

There are other opportunities for technology to assist ITE students with finding professional experience placements. Technology can be used to locate and connect students to opportunities by locality. Online systems could relieve the paper-based burden of administration for schools.

4. The role of teachers and school leaders in supporting the next generation of teachers

- ***Should ITE providers continue to support the development of newly graduated teachers? What would this look like?***

As mentioned previously, the school environment plays a critical role in promoting innovative teaching practices. Schools that encourage staff to lead new initiatives offer a fertile environment for integrating digital pedagogies into classroom practice.

There is evidence that teachers have access to professional learning in digital abilities to use digital technologies and in the use of technology in teaching. However, they are not necessarily trained in other essential digital competencies such as enquiry-based and research-rich practice, digital equality and assessment, user-centred and co-design, and cyber-ethics.

ESA identifies opportunities to partner with education jurisdictions and ITE providers to promote user-centred design and spotlight innovative practice in designing and implementing education technology. The Maths in Schools partnership with the University of Adelaide and the ELLIC project with the SSI exemplify such possibilities.

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