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Series Editor: Claire Wyatt-Smith

Claire Wyatt-Smith
Lenore Adie
Joce Nuttall *Editors*

Teaching Performance Assessments as a Cultural Disruptor in Initial Teacher Education

Standards, Evidence and Collaboration

Teacher Education, Learning Innovation and Accountability

Series Editor

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Editors

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A book is always an outcome of a team. This book has been achieved through the commitment of a nation-wide Collective of hundreds of teacher educators who have committed their time and expertise to the renewal of teacher education. We also recognise the contributions of thousands of preservice teachers who have undertaken the Graduate Teacher Performance Assessment (GTPA) and their generosity in sharing their experiences and learnings. The teacher educators and their preservice teachers bring the issues of quality, standards and evidence to life as they enact their practice and as they give readers windows into their practice. In addition, we recognise many colleagues both nationally and internationally who have provoked new thinking about directions in initial teacher education. These include colleagues from teacher regulatory authorities, education unions, members of statutory authorities and leading educators with expertise in policy and practice. They have all contributed to the cultural disruption that is at the core of the book. We also acknowledge colleagues who brought their scholarly expertise to bear in reading and providing feedback on chapters and on preparing the manuscript for submission. Among these, we shine the light on the contributions of Dr. Elizabeth Heck who paid meticulous attention to communications with our contributing authors and timely progression of the manuscript. We also acknowledge Dr. Selena Fisk for her editorial assistance throughout the process.

A Letter to Readers From John Ryan

Dear reader

Between May 2006 and May 2019, I held the position of Director, Queensland College of Teachers (QCT). The QCT is the regulatory authority for the teaching profession in Queensland. Holding this critical position enabled me to be in a privileged and unique position to shape, develop and implement significant changes in the regulation of the teaching profession. A critical function of the college is the accreditation of initial teacher education (ITE) programs.

This allowed me to develop in-depth insights into initiatives being proposed and implemented. Some of the key initiatives that I have detailed knowledge of include the development of national teacher standards for the profession and national guidelines for the approval of ITE programs. Of all of the initiatives, the change that had the greatest positive impact on Higher Education Institutions (HEIs) delivering Initial Teacher Education (ITE) programs was the implementation of a teaching performance assessment (TPA). The TPA was introduced as part of the revised Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures (Standards and Procedures; Australian Institute for Teaching and School Leadership [AITSL], 2015).

During my time as Director of the QCT, three major reviews were held that impacted on ITE in Queensland. The three reviews were:

- A Shared Challenge: Improving Literacy, Numeracy and Science Learning (Masters, 2009)
- Review of Teacher Education and School Induction (Caldwell & Sutton, 2010)
- Action Now: Classroom Ready Teachers (Teacher Education Ministerial Advisory Group [TEMAG], Craven, et al., 2014).

The first and second reviews were state-level reviews. The final review was national and produced the report *Action now: Classroom ready teachers* (Craven et.al., 2014). This report had the greatest impact on ITE. Unlike many previous reviews that sat on bookshelves, the AITSL drove the implementation of many of the recommendations in partnerships with HEIs and Teacher Regulatory Authorities (TRAs).

The TEMAG review was also the one that created the greatest angst for me. Despite how you tried to frame the report, it was a very public criticism of ITE programs and their approval or accreditation by TRAs.

Despite the personal angst the review had created, I also believed it provided opportunity. Concepts from the relevant recommendations from the review were transformed into requirements of the *Accreditation of initial teacher education programs in Australia: Standards and Procedures* (Standards and Procedures; AITSL, 2015).

One of the revised requirements of the standards and procedures required preservice teachers to have successfully completed a final-year teaching performance assessment prior to graduation that is shown to:

a. be a reflection of classroom teaching practice including the elements of planning, teaching, assessing and reflecting,
b. be a valid assessment that clearly assesses the content of the Graduate Teacher Standards,
c. have clear, measurable and justifiable achievement criteria that discriminate between meeting and not meeting the Graduate Teacher Standards,
d. be a reliable assessment in which there are appropriate processes in place for ensuring consistent scoring between assessors,
e. include moderation processes that support consistent decision-making against the achievement criteria". (Standard 1.2; AITSL, 2015, p. 12).

This requirement addressed a major theme of the report—that graduates were classroom ready. It was through this requirement I saw opportunity, as I strongly believed this requirement could significantly improve the teaching quality of graduates and silence many critics of teacher education, if implemented properly.

I also believed it would be advantageous if all Queensland HEIs used the same TPA. Benefits included:

- reduced compliance obligations for HEIs and for panels accrediting programs,
- reduced costs for HEIs as they did not have to develop their own TPA,
- reduction in teacher workloads as supervising teachers would only have to be familiar with one TPA, and
- consolidation of the key message to the Minister for Education, stakeholders and the public that there was a consistently high-level minimum standard being applied to all graduates in Queensland.

The more TPAs implemented, the greater the challenge of ensuring comparability of standards across them.

The development of a TPA initially seemed straight forward and easy to accomplish. It was not until each of the conditions stated in (a)—(e) above were dissected, that it became apparent that this was a very complex task and nothing like it existed in Australia. Teaching performance assessments that complied with the conditions did exist overseas, and there was a real concern that an instrument would be imported and administered by a commercial company. This would further erode the profession's ability to set the standard of teaching.

Compounding the issue was that the Australian Professional Standards for Teachers (APSTs; AITSL, 2011), which outline what graduate teachers should know

and be able to do, did not articulate any achievement levels; that is, *What is the standard of the standard?* Without an agreed standard, there were inconsistent judgements being applied within universities, and across universities, about whether graduates met the APSTs at an appropriate level.

While these notions were agitating, I had to acknowledge that the QCT neither had the capacity nor the authority to develop a TPA. It was at this point that I approached Professor Claire Wyatt-Smith at the Institute for Learning Sciences and Teacher Education (formerly known as the Learning Sciences Institute Australia) to gauge her interest in developing such a task. Fortunately for education in Australia, Claire accepted the challenge of developing Australia's first endorsed TPA. The Graduate Teacher Performance Assessment (GTPA) was borne out of this acceptance. The GTPA is an assessment that demonstrates preservice teacher pedagogic problem-solving and decision-making, allowing others to "see" the thinking that informs practice, bringing together theory and practice across an entire degree program (Adie & Wyatt-Smith, 2020).

The next challenge was to engage and enrol Queensland HEIs so they would participate in this project. Initially, all but one Qld HEI agreed to participate in the GTPA. At the time of writing this introduction, seven out of the nine Queensland HEIs are still using the GTPA. Other HEIs from other states and territories have realised the benefits of the GTPA and have also joined the consortium, known as the Collective.

A number of chapters of the book explore the various concepts required for the development and implementation of the GTPA on ITE program and research. Chapter 5 emphasises the importance of fidelity in assessment to ensure results from different HEIs can be used in fair moderation, the preconditions required to "get the GTPA" right is examined in Chap. 17. Chapter 16 explores how results from various assessment tasks early in a students' program predicts their probability of successfully completing the program. Chapter 4 examines the media reaction to the introduction of TPAs and specifically the GTPA.

While the GTPA addressed the program standards, perhaps more importantly were some of the serendipitous outcomes of the GTPA. The book explores how ITE educators worked collaboratively with each other rather than in silos, how the GTPA was a driving force in HEIs reviewing and renewing their programs, how stakeholders worked collaboratively to resolve issues, the business enablers required to progress the project, and how teacher educators reclaimed their professional accountabilities. It also highlights how the GTPA enabled business continuity of some ITE programs during COVID-19.

The term *cultural disruptor* is used in the book and it is an apt term considering the meticulous work involved in creating a safe environment where frank, fearless and honest conversations could be held by teacher educators about important and sensitive topics regarding their programs.

There is commentary in the book about the important role of TPAs in ITE programs. Unfortunately, there has been a proliferation of TPAs in Australia and the author of that section outlines possible consequences of what this might mean for ITE in future.

Those teacher educators who participate in the GTPA consortium need to be acknowledged for bringing an open mindset to such an innovative initiative. They

need to be congratulated on having the courage to be transparent about their programs with their colleagues. Finally, they need to be praised for their contribution to developing an authentic assessment that the profession can relate to and accept. In doing so, they have determined the competence of the next generation of teachers.

It would be remiss if I did not highlight the leadership and vision of Professor Claire Wyatt-Smith. She showed courage and resilience in the face of ignorance, criticism and adversity. She demonstrated innovative practices when solutions could not initially be found. She facilitated a change in culture of how teacher educators worked. Claire will leave a legacy of helping change the perception of ITE in Australia.

John Ryan

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John Ryan has worked in education for over forty years. He held the position, Director of the Queensland College of Teachers, the body that accredits initial teacher education programs in Queensland. A significant portion of his work involved overseeing the implementation of the Teacher Education Ministerial Advisory Group reforms at a state level. He helped drive the creation and implementation of Australia's first nationally endorsed Teacher Performance Assessment. This role allowed him to have first-hand experience of the challenges and benefits of arguably the most important change to initial teacher education in recent times.

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Abbreviations

ACER	Australian Council for Educational Research
AERA	American Educational Research Association
AfGT	Assessment for graduate teaching
AITSL	Australian Institute for Teaching and School Leadership
APA	American Psychological Association
APST	Australian professional standards for teachers
ATAR	Australian tertiary admissions rank
CAE	Collaborative autoethnography
CDA	Critical discourse analysis
CHAT	Cultural historical activity theory
CIM™	Cross-institutional moderation
DLD	Developmental language disorder
DNA	Dialogical narrative analysis
edTPA	Educative Teacher Performance Assessment
EQuITE	Evidence for quality in initial teacher education
GPA	Grade point average
GTPA®	The Graduate Teacher Performance Assessment
GTPA SAM	GTPA standards and moderation
ILSTE	Institute for Learning Sciences and Teacher Education
ITE	Initial teacher education
LANTITE	Literacy and numeracy test for initial teacher education
MFRM	Multi-facet Rasch model
NAPLAN	National assessment program—Literacy and numeracy
NARTE	Non-academic requirements for teacher entry
NBPTS	National Board for Professional Teaching Standards
NCME	National Council on Measurement in Education
OP	Overall Position
PACT	Performance assessment for California teachers
PAT-M	Progressive achievement tests in mathematics
PAT-R	Progressive achievement tests in reading
PISA	Programme for international student assessment
PLDs	Performance-level descriptors

PLT	Practical legal training
PST	Preservice teachers
QCT	Queensland College of Teachers
QPERF	Queensland professional experience reporting framework
SCALE	Stanford Centre for Assessment, Learning and Equity
TEMAG	Teacher Education Ministerial Advisory Group
TPA	Teaching performance assessment
UNESCO	United Nations Educational, Scientific and Cultural Organisation
US	United States of America

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Part I
Situating Teaching Performance Assessments

Chapter 1
Professional Standards, Evidence and Collaboration: Cultural Disruption in Teacher Education

Claire Wyatt-Smith and Lenore Adie

Abstract This book is about significant cultural disruption in initial teacher education. The disruption can be traced to two main catalysts. The first was a policy change, and the second was spearheaded through a research and development initiative that saw an unprecedented number of universities mobilising for collective agency. Their shared focus was to establish the readiness of teacher education graduates for professional practice. Initially, the policy change took the form of a requirement for preservice teachers to successfully complete a teaching performance assessment to demonstrate professional competence. In the policy enactment, however, research-informed change involved the formation of new networks and interrelationships across multiple educational stakeholders and sites where education policy is remade in and through practice and research. To set the scene for what follows in the book, this chapter sketches the contestation surrounding teacher education and highlights the turn to data, standards and professional judgement as essential in building an evidence base to show the quality of teacher preparation. The chapter also presents an overview of the four parts of the book. Taken together, these bring into the forum the voices of teacher educators (Part 2), followed by provocations from leading education researchers on changes in education, and includes a commentary on *getting teaching performance assessments right* in the best interests of learners (Part 3). To conclude the book, Part 4 presents future directions for sustainable change in teacher education.

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1.1 Teacher Education in a Crucible of Change

Within the contemporary frame of global change and increasing calls for reform in education, teacher education has come to centre stage of government and public interest in many countries. In what is undoubtedly a powerful policy driver, the elusive notion of teacher quality has come to be regarded as a major determinant of overall quality of a country's schooling system in both the Global North and the Global South. The policy logic is clear: improving the quality of teachers is needed, along with a concerted focus on suitably engaging learning opportunities for diverse learners that incorporates the growing array of online technological tools and platforms. This is not to argue that teachers are redundant, with schools destined to become obsolete. Rather, it is to argue that teacher professionalism is critical in preparing young people to take up their roles in what will continue to be complex and unchartered futures. Well-prepared teachers and the use of technological tools to support learners are both central to efforts to promote learner growth and address the divide, widening in many countries, between high- and low-performing students. Also, critical is the need to address shortages in professionally trained teachers in some countries.

The main question taken up in this book is: *What does teacher education reform look like when evaluative expertise and issues of quality, evidence and agency are placed centre stage?* In this chapter, evaluative expertise is taken to refer to the necessary knowledge and skills of teacher educators to monitor their own performance in curriculum design and pedagogic decision-making and to recognise quality and apply standards as referents in arriving at judgements of preservice teacher competence for entering the teaching workforce. The genesis of the book is located in two forces that constitute the contemporary crucible of change in which teacher education is located. The first force comes from the numerous national reviews and reform agendas that assert the need to improve quality in teacher education programs and, in turn, student learning and achievement. The second force has fuelled calls for producing evidence of quality in graduating teachers, in efforts to sustain and build public confidence in education systems at state and national levels. Each of these is discussed briefly.

In the last decade, official national reviews have taken place in countries including Scotland, Wales, Ireland, the Republic of Ireland, Australia, Canada, the United States (USA), England, New Zealand and Hong Kong (e.g. Australia: Craven et al., 2014; Wales: Furlong, 2015; Ireland: Sahlberg et al., 2014; Scotland: Donaldson, 2010). At the time of writing this book, the Australian education minister, the Hon. Allan Tudge MP has heralded a further review of teacher preparation, telling the nation that "The next evolution of reforms is needed… to ensure that all ITE courses are high-quality and adequately prepare our teachers to be effective from day one" (Tudge, 2021, n.p.).

The momentum for reviewing and improving teacher education is also evident in the moves in several countries to strengthen the role of accreditation agencies with responsibilities for setting and monitoring professional standards for teaching

and school leadership—the second force of change. Professional standards are now firmly in place in initial teacher education (ITE). This observation tends to mask the more important insight into differences in how standards are conceptualised, and their nature and function understood. Broadly speaking, the recognised main purpose of professional standards is to formalise and communicate expectations of practice for membership of a profession (Wyatt-Smith & Looney, 2016). Standards are an essential hallmark for recognition of a profession, with standards associated with requirements for safe practice. Once competence has been demonstrated and an accredited program of preparation has been completed, licensure can be granted as recognition of approved membership of a chosen profession. There are, for example, professional standards that apply in fields including medicine, dentistry, clinical practice in the fields of psychology and psychiatry and teaching.

We note that breaching professional standards can have legal implications and lead to litigation. This can occur where practice by individuals or groups is assessed to be inconsistent with approved standards, where it was assessed as unsafe and, in some cases, breaching ethical practice, and where injury or damage has resulted. In such cases of breaching standards, licensure can be revoked. This provides an opening for mentioning that public recognition of the standing of the awarding institution for a degree is of increasing interest. In turn, this shines a spotlight on the dependability of standards in higher education within and across countries, especially as these are associated with professional entry requirements as applied and interpreted by individual universities. An issue bubbling in policy contexts in some countries is whether it is possible to tie the quality of practice of a graduate back to the quality of the preparation program in an awarding institution.

While the nomenclature of professional standards for teaching can vary considerably across countries and even across jurisdictions within a country, essentially standards are intended to capture official expectations of the practice of the beginning teacher and, in some countries, subsequent career stages (e.g. the *advanced* or *master teacher*) through to administrative leadership positions in schools. Importantly, research evidence on ITE that connects standards and actual evidence of the quality of ITE programs is in its infancy. This book provides empirical research evidence of the application of standards in teacher education with respect to the introduction of teaching performance assessments (TPAs).

The strength of the second force is clear in the move in several countries to produce evidence of the quality and effectiveness of teacher education programs. While the calls have some variation, they tend to highlight issues common across contexts. These include strengthening the evidence base that universities and others with responsibilities for teacher education use in designing and implementing programs to integrate theory and practice. The optimum balance between academic programs and practical or school-based experiences is therefore of high interest. The numerous research-informed reviews of teacher education, mentioned earlier, and seminal studies including meta-analyses of the motivation for choosing teaching as a career (Gore et al., 2015; Wyatt-Smith et al., 2017) and teacher preparation and certification (Bahr & Mellor, 2016; Cochran-Smith & Villegas, 2015; Darling-Hammond &

Bransford, 2005) illustrate efforts to inform teacher education about the candidates that enter teaching and their experiences.

Against this backdrop, some readers may find it surprising that research conducted in teacher education has been dominated historically by small-scale studies which have tended to offer limited generalisability beyond the sites in which the studies were undertaken. This has resulted in a situation where teacher education as a field does not have access to a well-developed evidence base—including quantitative information—to demonstrate the quality of candidates entering teacher education programs. Added to this is the observation made by Cochran-Smith and Villegas (drawing on the work of Kennedy, 1996) that 'primarily quantitative research on teacher education, intended to inform policy and policy makers, was often more familiar to skeptics and critics of teacher education, including economists and policy analysts, than to teacher educators themselves' (2015, p. 8). This observation suggests policymakers turned to primarily quantitative research that has tended to remain undeveloped in the research field of teacher education.

In Australia, one recent response to the frequent calls for evidence has been the commitment of the Australian Education Council to review teacher workforce needs of the future and develop the Australian Teacher Workforce Data and related workforce strategy. This is a joint initiative implemented by AITSL in partnership with national and state governments, teacher regulatory authorities and key stakeholders (AITSL, 2020). A further response is to concentrate attention on the oft repeated phrase of 'what works' in education, evident in the move to establish the Australian Education Research Organisation (AERO). This organisation has three main aims: to generate high-quality evidence, make high-quality evidence accessible and enhance the use of evidence in Australian education. The motivation is to 'ensure that all school leaders, teachers and educators have access to the best available evidence and resources' for improving learning (AERO, n.d., para. 4). The increasing demands for evidence and related measures of quality of education and the teaching workforce are central themes in this volume.

1.2 The Move to Assess Professional Competence in Teaching

This book comes at a time when the potent changes mentioned earlier have converged and triggered the requirement for a culminating or summative TPA. This observation is not intended to suggest that the field of teacher education is in a state of crisis in Australia (or elsewhere) where such an assessment has attracted interest. It is, however, to highlight the turn underway in many countries to education performance data, with a reach beyond schooling performance and into the preparation of teachers. Underlying this is the well-entrenched value proposition that teachers matter—their work matters—in how and how well young people learn, and in turn, the opportunities that open (and close off) in post-school pathways.

The impetus of the intensifying focus on teacher preparedness can be traced back to the prospect of establishing impact measures of the teacher preparation programs on student learning in the classroom. This turn became clear in Australia following the Teacher Education Ministerial Advisory Group (TEMAG) review into teacher education, titled *Action now: Classroom ready teachers* (Craven et al., 2014). The report presented recommendations for reforming teacher education, including a recommendation to introduce a new mandatory competence assessment in the final year of preparation as a hurdle assessment. As it was originally proposed, the aim of the assessment was to establish 'classroom readiness', assessed against a minimum standard of professional competence. At the time when the TEMAG report was published, an assessment of classroom readiness against the minimum acceptable standard for graduation and subsequent licensure had not been established in Australia. The introduction of a competence assessment in the final year of a teacher education program represented unchartered territory in policy reforms at the national and state levels. Precedents of teaching competence assessments elsewhere are discussed in Chap. 2 of the book.

The current requirement is for all teacher preparation programs to be accredited against already established and endorsed Australian Professional Standards for Teachers (APST; Australian Institute for Teaching and School Leadership [AITSL], 2011; revised 2018). The APST provided the overarching framework for identifying requirements for teacher preparation programs. It may not be surprising for some readers that the additional policy-driven requirement for all teacher education programs to include a teaching performance assessment to determine readiness for practice was not uniformly welcomed. Half a decade later, several sites of teacher education are yet to implement an endorsed TPA.

A watershed in Australian teacher education came when the national agency, AITSL, invited universities in 2017 to form consortia to design a new competence assessment. The common enterprise set for the two successful consortia (one led by Australian Catholic University; one by the University of Melbourne) was to develop a research-informed authentic competence assessment, undertake a rigorous trial for validation and standard-setting purposes and conduct some form of moderation. The Graduate Teacher Performance Assessment (GTPA®),[1] which is the focus of this book, initiated a new online model of cross-institutional moderation (CIM-Online™; see Chaps. 3 and 11).[2] The model was developed for the purposes of demonstrating the validity of the instrument and the reliability of judgements made by teacher educators who had no previous experience of collaboration in determining readiness

[1] Acknowledgment: The Graduate Teacher Performance Assessment (GTPA®) was created by the Institute for Learning Sciences and Teacher Education, Australian Catholic University and has been implemented in a Collective of Higher Education Institutions in Australia (graduatetpa.com). ILSTE has led the validation of the instrument, standard-setting and cross-institutional moderation with the engagement of teacher educators, policy personnel and a multidisciplinary research team.

[2] Acknowledgment: The online model of cross-institutional moderation (CIM-Online™) was conceptualised and developed by the authors of this chapter. The work has been supported by digital architects in the Institute for Learning Sciences and Teacher Education, Australian Catholic University.

(see Chap. 2 for a more detailed discussion of the GTPA). This required the design and trialling of the scoring rubric, formulation of the standard at the minimum and collection and analysis of quantitative data showing the results of applying the standard on actual samples drawn from participating universities. A significant corpus of evidence from the trial was generated, including exemplars showing the application of the scoring rubric and the standard, and this was submitted for review and assessment to an Expert Advisory Group in AITSL. The new TPA, together with the scoring rubric and exemplars showing the application of the standards, made available evidence of what counts as practice assessed as profession ready. As discussed further in Chap. 2, the authors of the present chapter use the term *profession readiness* to capture the critical association between the TPA and licensure requirements, with the outcome of the TPA being consequential for entry to the profession. This development of a new mandatory competence assessment was without precedent in the history of teacher education in Australia.

There emerged three categories of responses to the introduction of TPAs in Australia, and what became a slow-moving attempted reform. The first was to ignore the TEMAG report, taking up the position that the policy would 'die on the vine', if universities simply 'waited it out and did not engage'. A related response was to resist the invitation to join with other universities in designing and trialling a TPA. The second response was to acknowledge the report and the recommendation to introduce a TPA but resist it by characterising TPAs as a top-down policy-driven imposition on teacher education. The oft repeated assertion was that TPAs promoted compliance and performativity. In this response, standards came to be narrowly construed as accountability tools for compliance, associated with an audit culture of 'ticking off' evidence types and outcomes.

The third response went well beyond a compliance-driven notion of reform. It focussed instead on the enabling potential of assessment and standards where they are used to foster both collaboration at scale and an inquiry culture in the use of evidence for review and renewal. Serafini (2000) characterised this form of response as an inquiry paradigm of assessment, as distinctive from what he termed measurement and procedure paradigms. A measurement paradigm is associated with large-scale standardised testing where results are primarily for use by authorities beyond the school, teacher and student. The procedure paradigm is still concerned with mandated reporting requirements to external authorities, though the method of data collection may be based in the classroom, such as portfolio assessment. While the method of data collection through a portfolio may generate inquiry, the epistemological stance of the procedure paradigm remains as the objective reporting of results to a higher authority for accountability purposes. Markedly different is assessment as inquiry which supports efforts to interrogate and interpret assessment results to infer meaning from them for next steps. In an inquiry paradigm, assessment is a positive agent; it can inform understandings of what and how well student learning has progressed and inform planning about options to improve teaching programs. The assessment then becomes the source of reflection. Serafini (2000) takes this paradigm further to involve the student in using assessment for self-assessment of their learning progress.

This book locates the TPA reform in relation to the assessment as inquiry paradigm. The potential of this lies in how it is used to discern useful evidence of the quality and impact of teacher preparation in Australia. In particular, the quantitative and qualitative data generated from implementing the GTPA enables teacher educators to report the quality of graduates against a common standard and undertake evidence-informed curriculum review and planning. The GTPA is a cultural disruptor as teacher educators across the country collaborate in large-scale data collection. It is a cultural disruptor as it navigates across the three paradigms of assessment (Serafini, 2000) with focus on assessment as inquiry and the learning generated from the assessment. The evidence of standards met as outputs from the cross-institutional scoring and moderation of GTPA samples is providing data not previously available to teacher educators and in turn providing evidence to inform policy (see Chap. 3).

As mentioned, this book presents perspectives on the culture change that flowed from the introduction of professional competence assessment in Australian teacher education, with a focus on a group of universities that came together to form the GTPA Collective. At one level, the volume is about holding teacher preparation to account. At another and far richer level, it presents situated accounts of teacher educators' experiences of culture change as they worked with preservice teachers and a range of industry collaborators, who joined forces in a national collective. At the time of the call for forming consortia in 2017, there was no precedent for universities to share preservice teacher work samples for the purposes of blind review, cross-institutional scoring and moderation to confirm the application of a common standard. More than this, there were no quality assurance processes—system checks and balances—to verify the comparability of judgements of the professional competence of teacher education graduates. The book raises issues concerning the benefits and risks of competence assessment, and system and site expectations of evidence and quality in teacher education.

Since the introduction of competence assessment in Australian teacher education, we have considered ourselves to be working in a discovery project in an approach to reform that has required ongoing enquiry, collaboration and the forming and maintenance of networks across the country. It has also required ongoing and significant learning by all parties, including teacher educators, preservice teachers, policy personnel, school personnel and a multidisciplinary team of researchers and methodologists. The shared focus of authors in this volume is on the phenomenon of change and specifically changing culture in teacher education through collaboration. Through this lens, attention focuses on evaluative expertise, professional judgement, authentic evidence and standards. We use the term *authentic evidence* to refer to (1) material evidence of performance change assessed against standards and (2) situated perspectives on the application of a common standard and using data for curriculum review and program renewal. By conjoining these three elements—evidence, standards and situated perspectives—we open the space for examining how culture change comes to be operationalised at system and local levels for the purpose of quality assuring graduate readiness for entering the classroom. In taking this approach, the book explores what we know about 'how' and 'how well' teachers are

prepared for professional practice and also how teacher educators can use previously unavailable evidence to inform their curriculum review and program renewal.

1.3 Chapter Overview

The book is presented in four main parts. Part 1 (Chaps. 1–4) situates teaching performance assessments in policy, and in broader public, professional and international contexts. Part 2 (Chaps. 5–9) gives an account of teaching performance assessments as enacted in diverse contexts. Part 3 presents a suite of five provocations to challenge thinking about the possible futures of teacher education. It concludes with Hattie's invitation to explore what it means to say, 'We have to get TPAs right' and why that is important. Part 4 presents the final two chapters with discussion of the next steps for sustainable change in teacher education through TPAs.

Each chapter can be read as a stand-alone chapter; however, readers interested in Part 2 would gain a more informed understanding of the TPA context by first reading Chaps. 1, 2 and 3. Readers interested in the challenges facing teacher education may first engage with the provocations to then return to the responses in the earlier chapters and the actual on-site engagement in Chaps. 5–8. Readers interested in the current and future possibilities for TPAs should engage with Part 4, returning to the other chapters of the book to gain insight to the historic context that set these actions in play.

Chapters 1, 2 and 3 provide foundational information for reading the implementation accounts in Chapts. 4–7. In Chap. 1, Wyatt-Smith and Adie describe the change context in teacher education internationally, including calls for reform, and present commentary on the move to assess professional competence in teaching. The GTPA has been presented on the one hand as an example of a TPA undertaken in response to the policy demand for TPAs to be introduced into all Australian teacher education programs and on the other hand as a cultural disruptor when assessment is viewed as an inquiry into practice.

In Chap. 2, Adie and Wyatt-Smith introduce the GTPA as one of Australia's endorsed TPAs. The assessment is conceptualised as a catalyst for culture change, bringing together a large collective of universities across Australia to undertake large-scale data collection, intended to provide evidence of the quality of ITE. This scale of data offers the potential to respond to criticisms of the quality of teacher education graduates and for curriculum review and program renewal. Six conditions are presented as necessary for bringing together a national collective of universities and other educational agencies to respond to accountabilities stemming from system and local or site requirements. Core design principles are illustrated through actual preservice teacher work samples, demonstrating how the GTPA is an authentic assessment of professional competence.

Chapter 3 sketches an online model of cross-institutional moderation (CIM-Online), a form of national benchmarking. The model is a main outcome from the GTPA development work undertaken after the instrument had been developed,

trialled and validated, and the accompanying standard had been established. CIM-Online as conceived for the GTPA invites teacher educators to take up an agentic role in the scoring of de-identified samples nationwide. Beyond this, it invites an even more intensified agentic role in the use of data for curriculum review and program renewal. The model has potential to build collaborative professionalism through collegial engagement in applying a common or established standard within and across participating universities. More than this, CIM-Online has potential to enable teacher educators to give an account of the quality of their programs and in this way professionalise teacher education, improving its status from what has been referred to as a cottage industry (see Hattie's Commentary in Part 4).

In Chap. 4, Heck explores the representation of teachers, the teaching profession in the Australian news media and the role played by the media in teacher education reform and the emergence of TPAs and related preservice teacher assessment. A dataset of 111 news articles published since the release of the TEMAG report (Craven et al., 2014) was analysed using the Analytical Framework for Media Discourse (Carvalho, 2008). The chapter discusses the implications of media representation of teaching, teacher quality and standards and the impact this has had on teachers' professional identity and public perceptions of the profession more broadly.

Chapters 5 to 8 and present teacher educator accounts in-situ. Taken together, they provide a lens on cross-site activity for significant change in ITE, led by teacher educators working in partnership with mentor teachers and other school leaders. These chapters lay out the intellectual, experiential and personal resources and related expertise that teacher educators and preservice teachers bring to their practice. The focus is on the academic dimensions (knowledge and skills in curriculum, pedagogy and assessment) and formation of teacherly dispositions and attitudes. The final chapter in Part 2 (Chap. 9) draws on cultural–historical activity theory (Engeström, 2014) to consider how the previous accounts of implementing the GTPA (Chaps. 5–8) are impacting on teacher education, teacher educators and preservice teachers.

Doyle, Evans and Salter (Chap. 5) focus on the impact of the implementation of TPAs on the work of teacher educators. Drawing on Hargreaves and O'Connor's (2017) work on collaborative professionalism, they trace their experiences of accountability and professionalism to reflect on TPAs as a major disruption to their prior understandings about their practice as teacher educators. The authors take a critical inquiry approach to the design and implementation of the GTPA into their programs. Written texts provided by teacher education colleagues (both tenured and non-tenured and administrative as well as academic) are analysed to identify tensions and opportunities in the implementation of a TPA in their university. Their conclusion is significant for institutional practices of teacher education. They argue that considerable work remains in re-imagining and reworking systems and processes to facilitate the introduction of new assessments. This work includes acting upon a holistic view of the teacher education workforce, beyond the interests solely of teacher education academics.

In Chap. 6, Lugg, Lang, Weller and Carr present the impacts of introducing a new competence assessment on the work of four teacher educators located in two universities in Victoria, Australia. The authors use a collaborative autoethnographic

methodology, Edwards' (2011, 2012) concepts of relational agency and relational expertise and Engeström's (2007) concept of expansive learning to explore and interpret the impacts of the GTPA on their roles as teacher educators, their professional learning and on the development of their ITE programs. The tensions and opportunities for working in teams within and across teacher education programs and providers are identified. A significant insight is that the discomfort experienced as they worked with new practices triggered a strengthening of collaborative problem-solving within and across universities as they exercised agency in leading ITE program review and renewal.

In Chap. 7, Parks and Morrison report on redefining boundaries between one higher education institution and its stakeholders for the purpose of developing a collective vision and common objectives in supporting final year preservice teachers. The chapter shows how the introduction of the GTPA within their university provided the impetus for reform. This phenomenon enhanced relationships, informed perspectives, developed new and shared language and practices and encouraged regular and productive boundary crossings (Oswick & Robertson, 2009) for those associated with this work.

Chapter 8, by Dargusch, Ambrosetti and Busch, focusses on the developing assessment literacies and identities of preservice teachers, a widely recognised underdeveloped area of teacher education. The authors utilise case study methodology to investigate the implementation of the GTPA in their multi-campus university and to specifically inquire into their pedagogical and assessment practices across their ITE programs. Data sources include teacher educator talk and actual GTPA samples. The authors found that the GTPA enabled preservice teachers to demonstrate their assessment practices in contextually responsive ways and to develop confidence in their role as assessors. The authors further identify how preservice teacher responses to the GTPA focussed the teacher educators' attention on the redesign of their ITE programs, taking a developmental approach to preparing preservice teachers as knowledgeable and confident assessors.

Chapter 9 by Nuttall draws on the preceding chapters in Part 2 to consider the GTPA and its implementation from the perspective of cultural–historical activity theory (Engeström, 2014). Concepts of *re-mediation* and *motive object of activity* are used to explain how the GTPA, and the work of the GTPA Collective, has changed practices of teacher education in Australia and fostered the agency of participating teacher educators. Blunden's (2014) concept of *collaborative projects*, as the appropriate unit of analysis for understanding the development of human practices, is employed to show how the GTPA has re-mediated ITE practice across a range of scales.

Following these accounts of the experience of enacting the GTPA and culture change in teacher education is a suite of five provocations and a commentary (Chaps. 10–15) by leading international scholars who address issues of quality, change and reform in teacher education. A key question taken up in the provocations is: *What are the social, digital and environmental counter narratives, the alternate responses, the blind spots in education made apparent in the COVID-19*

crisis that could be incorporated in thinking about and addressing issues for transforming teacher education? The provocations give readers access to possible futures for teacher education and changing work practices for teachers. Readers are challenged to consider radical rethinking of assessment and its purposes in schooling, in turn, teacher education and the impact of advances in digital technology on teachers' professionalism and their work.

In Provocation 1, DeLuca proposes that the COVID-19 pandemic has provided the opportunity to pause and experience deep reflexivity to reimagine a fundamental new future for education. He suggests that in this re-imagining, the focus should turn to well-being, connections and understanding of self. DeLuca notes the imperative of socially orientated curriculum and assessment in which students work collaboratively, responding to challenge and building compassion. He asks, 'How can assessment support a curriculum of care?'. His call is to empower teachers to imagine new assessment possibilities by radically rethinking assessment theories and practices. He suggests education systems need to provide opportunities for teachers' professional learning that will equip them with the capacity to experiment and think radically to innovate assessment and to respond to the social consequences of assessments that consider students' well-being.

Bearman explores the impact of the digital in light of the COVID-19 pandemic through two connected provocations. The first provocation is for innovation of assessment so that learners can navigate an ever-changing world. As many education systems have become increasingly data and technology driven, Bearman stresses the necessity for graduating teachers to have the skills to work within this evolving and ever-changing digital landscape. The second provocation is that such innovation in digital assessment is often easier said than done. Digital innovations can be complex, political and require compromise. Furthermore, the language used in assessment in a time of digital development has a significant role. Bearman asks how assessment practices can be meaningfully translated to support student development in a dynamic digital future.

In Provocation 3, Snowling highlights the attainment gap of disadvantaged children as a growing concern made more evident during the pandemic. She notes the role of oral language in this context, which is often neglected in the curriculum. In particular, Snowling emphasises that assessing language in its own right for school entry is just as valuable as 'reading readiness'. In particular, the development of oral language is identified as important for learners of diverse language backgrounds or those who have developmental needs. Snowling also notes concerns of socio-economic demographic variables and the role of educators to teach reading and writing and to help children build a rich vocabulary. She identifies spoken language, or 'oracy', as important in the classroom as 'literacy'. Snowling provokes readers to consider the imperative for appropriate developmental language intervention in efforts to close the social differences that have grown as a result of the pandemic.

In Provocation 4, Smith notes that COVID-19 has provided an event that could not have been predicted, yet one that has caused a rethink of education, and in particular, assessment in education. She makes the claim that the pandemic has brought to the fore the flaws in existing infrastructures, making it evident that teachers do not

adequately understand the complexity of assessment. She proposes that this is the area where teacher education now needs to focus. Smith further claims that education systems and leaders do not have a robust understanding of alternatives to traditional assessment. She challenges readers to reconsider how assessment is understood. In addition to this, Smith notes that the pandemic has amplified the digitalisation of education and the role of the home in education. Smith provokes readers to think about how education, including assessment, can be restructured.

During the production of the book, we found ourselves in the grips of a pandemic and a resultant tumultuous global economy. Trying to make sense of teacher education in this time set up new complexities and hitherto unpreceded challenges. In Provocation 5, Wyatt-Smith, Day and Adie describe how, due to the COVID-19 situation, preservice teachers were unable to complete TPAs in classrooms in 2020. The teaching workforce pipeline of graduate teachers in 2020 was at risk. The closure of schools presented significant concerns regarding the policy requirement for graduates to demonstrate professional competence (classroom readiness). In this provocation, the authors present how the GTPA Collective was able to meet these challenges during the impact of COVID-19 on teacher education. The response involved designing GTPA *Data Scenarios* that presented a class context and included authentic data samples and materials drawn from previous cohorts. The provocation can be read in conjunction with Nuttall's chapter concerning the GTPA as a collaborative project for preservice teachers.

The final Commentary in Part 3 commences with Hattie's proposition that 'We have to get TPAs right'. He starts with the recognition that teacher education has already been the subject of extensive review and critique, with a succession of reform attempts. His statement that 'teacher education, in large part, remains a cottage industry, allowing each program to be unique' (Commentary, para. 2) will no doubt resonate with many readers. While program distinctiveness can appear to be a strength, he also identifies 'The variance in programs across Australia illustrates remarkably high variance in quality measures' (commentary, para. 2). He states that 'The most recent ITE Data Report (AITSL, 2019) provides a vivid example of the variance between the five ITE institutions rated highest and the five rated lowest across a number of indicators' (Commentary, para. 3). He challenges readers to think about the value of TPAs in the Australian teacher education landscape. This challenge has relevance beyond Australia. Further, he does not advocate for TPAs as a generic product; rather he identifies the critical features of productive TPAs that have the potential to inform teacher education. He further acknowledges concern with the limited evidence of the impact of teacher education on student learning. Cross-institutional moderation, as a key practice associated with Australian TPAs, is identified as a significant move to ensure teacher educators are intrinsically involved in establishing the standard for determining competence assessed against professional standards. He identifies how the growing number of TPAs increases the difficulty of achieving a common passing standard in ITE as well as introducing complexity for school partners. He concludes by noting the work still to be done in the implementation of TPAs, while promoting the potential 'hothouse of exciting research' (Commentary, para. 10) that is waiting to be explored.

In Chap. 16, Haynes and Smith present an approach to longitudinal analysis of progression pathways from entry to graduation in teacher education, as an aspect of the research and development work that includes the implementation of the GTPA. They adopt a methodology applied previously in the physical sciences, for example, in groundwater research (Luo et al., 2006) and in optimal topography for medical research (Ducros et al., 2009). They have adapted the methodology for a social science/education application. This is the first known instance of application in teacher education. Its potential lies in how it can take into consideration large-scale demographic and other temporal individual characteristics and identify patterns in performance pathways, which may lead to either success, or under-performance, supported through a custom-designed digital architecture. The methodology generates new knowledge that will enable universities to strategically target support for different preservice teacher groups to enhance opportunities for program success.

The final chapter by Wyatt-Smith and Adie introduces an interconnected set of preconditions that constitute a sustainable approach to culture change in teacher education. This set has been empirically developed from the large-scale GTPA project. The preconditions point to evaluative expertise and evidence-informed decision-making as critical in agentic action. The preconditions are offered as a guide to those responding to new policy directions intended to improve teacher education, especially where agency and collaboration are taken as core values of the professionalism of teachers and teacher educators. The discussion focusses on professional standards and what they mean for a sustainable approach to professionalising teacher education, carrying forward the focus on evidence and standards. In the chapter, the GTPA is presented within two longitudinal workforce studies that share an interest in workforce readiness, standards and evidence.

1.4 Contribution of This Chapter

In this chapter, we have introduced the genesis of the book and its key question: *What does teacher education reform look like when evaluative expertise and issues of quality, evidence and agency are placed centre stage?* The work began against a backdrop of repeated calls for reforming teacher education, a strengthening focus on professional standards and governments' insatiable appetites for data and evidence to show the quality of schooling systems. Starting with a policy-driven, top-down reform agenda in teacher education, the discussion characterises three possible responses to the introduction of teaching performance assessments. These are: first, to ignore or resist the policy, taking up the position that it is not going to endure; second, to acknowledge the policy as a call to action, but characterise it as serving to promote compliance and performativity through standards narrowly conceptualised; and third, to approach the dual focus on standards and data as enabling, seeing them as providing opportunity to foster a culture of collaboration in the generation of actionable evidence for improvement. This third response stands in stark contrast to the other responses in its focus on a paradigm of assessment as inquiry (Serafini,

2000). This chapter opens the window to see what this third choice has entailed for research-led intervention in teacher education.

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Chapter 2
The Conceptualisation of a Teaching Performance Assessment: Designing for Evidence of Graduate Competence

Lenore Adie and Claire Wyatt-Smith

Abstract This chapter introduces the Graduate Teacher Performance Assessment (GTPA) as an Australian endorsed teaching performance assessment (TPA). The GTPA is taken to be a cultural disruptor. Officially it is positioned within an accountability-as-measurement policy-driven reform context. We are bringing an inquiry mindset to the introduction of TPAs within which TPAs acted as a catalyst to inquire into initial teacher education (ITE) programs with a focus on evidence of program effectiveness. We argue that the use of data generated from the assessment for curriculum review and program renewal through TPAs is not an optional extra. Rather, it is a necessary precondition for a sustainable approach to professional accountability and requires a new mindset on the part of teacher educators, policy personnel, and school staff involved in preparing future generations of teachers.

2.1 Introduction

Motivated by attempting the move to an evidence and inquiry mindset, the Graduate Teacher Performance Assessment (GTPA®)[1] acts as a cultural disruptor in Australian initial teacher education (ITE) for mobilising a large collective of national partners to build an evidence base of the quality of ITE. In exploring how this has occurred,

[1] Acknowledgment: The Graduate Teacher Performance Assessment (GTPA®) was created by the Institute for Learning Sciences and Teacher Education, Australian Catholic University, and has been implemented in a Collective of Higher Education Institutions in Australia (graduatetpa.com). ILSTE has led the validation of the instrument, standard-setting and cross-institutional moderation with the engagement of teacher educators, policy personnel and a multidisciplinary research team.

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we begin the chapter with a discussion considering the emergence of teaching performance assessments (TPAs) in initial teacher education. We then introduce the GTPA and present seven conditions that we have relied on to bring together the national collective of universities and other educational agencies to enable collaboration at scale that is responsive to both policy (system) and local site level requirements. In addition, four core design principles of the GTPA are illustrated through segments drawn from samples of preservice teachers' GTPA responses. The design principles locate the assessment as an authentic assessment of professional practice that draws together the university-based theoretical program with the practical professional experience to capture data-informed pedagogic reasoning, as mentioned in Chap. 1.

We begin with the proposition that quality is an overly used term; its meaning remains elusive. In education, there is a quest for "quality" teachers and teaching. In addition, there is reported criticism in the media and more generally in the community that improved student results hinge on the quality of the teacher/teaching. The corollary to this appears to be that declines in student performance can be traced back to the quality of the teacher/teaching. This is a contested claim in the international research and in practice, though it continues to attract attention in education policy and the media (see Chap. 3, this volume). Throughout this book, the focus is on the contested issue of graduate preparedness or readiness for teaching and the introduction of a TPA as a mandatory requirement for licensure. The authors explore what is involved in collaborative action and inquiry in teacher education and the move to evidence-informed practice and the use of large-scale data to "show" quality.

In this chapter, we begin to consider the hard questions about the conditions necessary to promote sustainable culture change in teacher education. Our intent is to "sharpen the professional discourse" (Newton, 2007, p. 151) on the purposes of TPA assessment and by extension, the purposes of the actionable evidence that it produces. We turn to Newton (2007) who positions purpose as central to policy. Newton warned that, where scant attention is given to purpose, "policy debate is likely to be unfocused and system design is likely to proceed ineffectively" (p. 150). At the time of writing, in Australia, for example, the number of TPAs to be officially endorsed in the country remains unknown. Also unknown is how the standard deemed acceptable within a TPA compares to the standard established in other TPAs. The position proposed in this book is not to advocate for a single national TPA but rather to advance research-informed inquiry into the quality and effectiveness of teacher education to inform policy. A centrepiece for such inquiry should be a laser-like focus on quality assurance systems and processes for applying an established standard, accepted by the profession, to determine graduate readiness. Our position is that evidence from such inquiry is necessary for sustainable culture change in teacher education. In the absence of evidence, the current pattern of lurching from one review of teacher education to the next is likely to continue.

2.2 The Emergence of Teaching Performance Assessments in Initial Teacher Education

The last two decades have seen considerably strengthened interest in standardised assessment tools, in part reflecting developments in digital technologies and advances in data analytics. The turn towards standardised assessments, long evident in the schooling system, is an emerging feature of teacher education, a field that has been identified as needing reform, is not well led, and lacks a strong evidence base (e.g. in Scotland: Donaldson, 2010; the United States: Cochran-Smith et al., 2013 and Rickenbrode et al., 2018; Australia: Craven et al., 2014; Northern Ireland: Sahlberg et al., 2014; England: Carter, 2015; Wales: Furlong, 2015; New Zealand: Education Council of New Zealand, 2016).

The introduction of TPAs as a policy lever is one response to such criticisms and is intended to improve the preparedness of graduates for teaching practice. Many countries are seeking assurance that teaching graduates are "classroom ready". TPAs have existed in the United States for almost two decades (Sato, 2014). For example, the Performance Assessment for California Teachers (PACT) was first implemented in 2002, with the Educative Teacher Performance Assessment (edTPA) implemented in 2013 across many regions in the United States. Both of these performance assessments draw on practical teaching experiences to demonstrate core practices of the profession. Both are also widely critiqued as reflecting accountability agendas responsive to a perceived disquiet about the quality of teaching to lift standardised test scores (Cochran-Smith et al., 2016; Dover & Schultz, 2016; Potter, 2020; Powell & Parkes, 2019; Reagan et al., 2016).

In Australia, the introduction of TPAs is a relatively recent phenomenon, as discussed in the preceding chapter. The absence of an evidence base to show the quality of teacher education, along with increasing calls for the reform of teacher education, acted as a catalyst for the Teacher Education Ministerial Advisory Group (TEMAG; Craven et al., 2014) to recommend the introduction of "final assessments that ensure pre-service teachers are classroom ready" (p. xiv). The adoption of this recommendation by the Australian Government in 2015 introduced a new credentialing requirement for all preservice teachers to achieve a pass on a validated final year summative teaching performance assessment prior to graduation.

This requirement is arguably the most significant of the suite of measures adopted from the TEMAG report as a driver of change in teacher preparation. The official purpose of a TPA was promoted as the way for the preservice teacher to demonstrate professional competence on completion of their ITE program. The related purpose was for the TPA to generate evidence of the quality and impact of ITE programs and, in this way, inform ongoing accreditation. In both purposes, there is a common focus on evidence of teaching performance to be gauged against external and officially accepted standards as common reference points, namely the Australian Professional Standards for Teachers (APST; Australian Institute for Teaching and School Leadership [AITSL], 2011; revised 2018) and the related standards and procedures for

accreditation of initial teacher education programs in Australia (AITSL, 2015; revised 2018, 2019).

The alignment of ITE programs with professional standards has been in place for some time in Australia, with each state and territory having systems and processes for accrediting teacher education programs. However, since their introduction in 2011, the professional standards have served primarily as inputs into the design of ITE programs and, in turn, program accreditation by state-based regulatory authorities. There has been no published evidence at either state or national levels to show the quality required of graduates to be assessed as competent for entry to the profession. Furthermore, the development of programs has proceeded without informing data which can be used to identify strengths and gaps in program design and to show how standards have been achieved by graduating preservice teachers (Wyatt-Smith et al., 2017).

The introduction of TPAs in Australia was a catalyst for shifting the focus from professional *standards as inputs* used to inform program development, to *standards as outputs assessed in actual classroom teaching practice.* In this shift, the requirement to implement a TPA has been attempted as a primary policy lever for building public confidence and trust in graduate capabilities. The TPA, as consequential for graduation and licensure, is intended to capture a demonstration of competence in the authentic skills and performances of teaching, otherwise termed *profession readiness*. The assessment is to include "clear, measurable and justifiable achievement criteria that discriminate between meeting and not meeting the Graduate Teacher Standards" and "moderation processes that support consistent decision-making against the achievement criteria" (AITSL, 2015, p. 10). Since 2019, the implementation of a validated TPA has been a mandatory inclusion in all Australian ITE programs[2] (see endnote for requirements of a validated TPA). The accepted recommendation for a TPA has potential to be consequential in turning teacher education towards evidence of professional competence on completion of preparation. The repercussions of the policy-driven intervention for issues of governance and program design are becoming apparent, with teacher education on the cusp of a multi-tiered quality assurance system (see commentary by Hattie and Chap. 16).

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[2] Extract from AITSL Accreditation Standards and Procedures: Standard 1.2.

Program design and assessment processes require pre-service teachers to have successfully completed a final-year teaching performance assessment prior to graduation that is shown to

1. Be a reflection of classroom teaching practice including the elements of planning, teaching, assessing, and reflecting.
2. Be a valid assessment that clearly assesses the content of the Graduate Teacher Standards.
3. Have clear, measurable, and justifiable achievement criteria that discriminate between meeting and not meeting the Graduate Teacher Standards.
4. Be a reliable assessment in which there are appropriate processes in place for ensuring consistent scoring between assessors.
5. Include moderation processes that support consistent decision-making against the achievement criteria. (AITSL, 2015, p. 12).

2.3 Purpose/s, Accountability, and Responsibility

First, we return to our intent in this chapter stated earlier, to bring *purpose* to centre stage and to "sharpen the professional discourse" (Newton, 2007, p. 151) on the purposes of TPA assessment. We begin with Newton's insights into the need for clarity of purpose in the design and implementation of assessment systems, and following this, we identify two mindsets that have played out in the introduction of TPAs in Australia. In part they reflect why many universities have been participating in endorsed TPAs for some time, whereas others are yet to begin.

The concept of "fitness-for-purpose" as applied in the assessment literature (Newton, 2007) is helpful. Newton presented the case that assessment purpose can be interpreted in a variety of different ways. He stated that "a system which is fit for one purpose will not necessarily be fit for all purposes" (p. 149). In this discussion, he identified three distinct purposes, namely

1. "the judgement level—which concerns the technical aim of an assessment event" (p. 150),
2. "the decision level—which concerns the use of an assessment judgement, the decision, action or process which it enables" (p. 150), and
3. "the impact level—which concerns the intended impacts of running an assessment system… These are impacts specifically attributable to the design of the assessment system, per se, rather than to features of the broader educational programme or system within which it operates" (p. 150).

Further, Newton presented the cautionary note that, "where the three discrete meanings are not distinguished clearly, their distinct implications for assessment design may become obscured. In this situation, policy debate is likely to be unfocused and system design is likely to proceed ineffectively" (p. 150). Assessment purpose and how assessment results are used need to be clearly aligned and communicated.

The preceding discussion identified that the TEMAG review ascribed two purposes for the "final assessments that ensure pre-service teachers are classroom ready" (Craven et al., 2014, p. xiv). These included the use of the assessment for the preservice teacher to demonstrate professional competence on completion of their ITE program and for the TPA to generate evidence of the quality and impact of ITE programs and thereby inform ongoing accreditation. Of these two, the heavyweight purpose by far was the development of a TPA to assess professional competence, increasingly referred to as "classroom readiness". At the policy and practice level across the country, considerably less attention has been given to what could count as evidence of quality and impact, the second identified purpose. This has led to the emergence of two distinct mindsets towards how to demonstrate professional accountability and responsibility in the purposive use of TPAs. These mindsets are sufficiently distinctive to merit further investigation as they shape the uptake of policy into practice in teacher education.

Here, we draw on the work of Lingard et al., (2017, p. 1), who identified that accountability in school systems can be understood in two ways, as "being held to

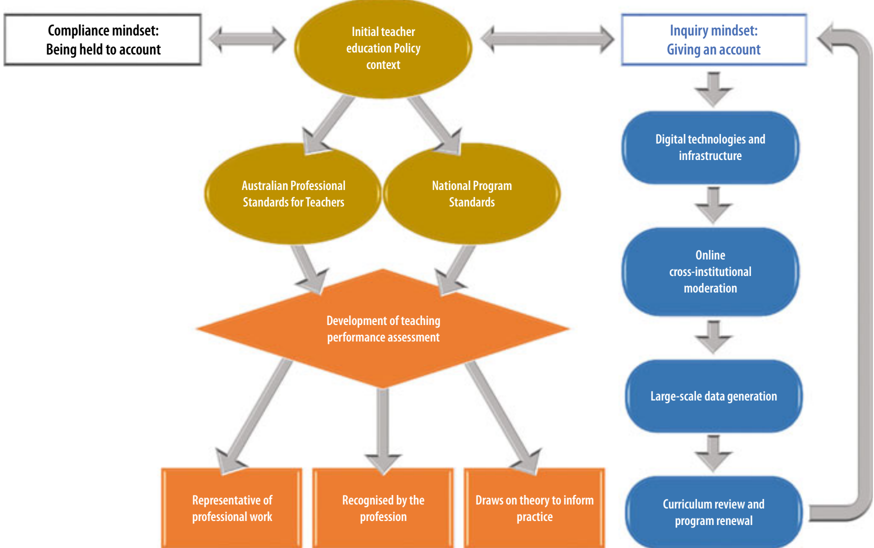


Fig. 2.1 Distinguishing a compliance mindset and an inquiry mindset as responses to accountability for implementing teaching performance assessments

account", calling forth a mindset of compliance, and "giving an account", adopting a mindset of inquiry. The authors argued that while the former is currently more dominant in school systems, there needs to be a balance between the two. We recognise that taking up a compliance mindset is a necessary, though insufficient, condition for improving teacher education; also, essential is a quality mindset that supports proactive inquiry and the generation and analysis of data that will enable an account to be given of the strengths of teacher education programs while also identifying areas in need of renewal (see Fig. 2.1). Both responses to accountability call for the use of evidence and fit-for-purpose action.

We argue that a compliance mindset responds to policy as text, delivering an officially endorsed TPA used for grading preservice teacher performance against the associated standard. This stance with its primary focus on summative assessment and related reporting is consistent with being held to account. The alternate response goes beyond this and involves generating and using customised data that links standards and performance characteristics for the purpose of investigating quality and effectiveness of programs in preparing teachers for teaching practice. The potential benefit of this data lies in how it can enable teacher educators to give an account of programs and identify both strengths and areas for improvement as part of program evaluation. These understandings about policy and fitness-of-purpose by design go well beyond the mandatory requirement for universities to take up an endorsed TPA as a high-stakes hurdle assessment in ITE programs. A key distinction between the two mindsets relates to understandings about the purposes of the assessment and the evidence that it produces.

As shown in Fig. 2.1, both mindsets lead to the production of a TPA as an authentic assessment that is recognisable to, and accepted by, the profession, being based on professional standards for teachers and program standards. The difference between them concerns the use of the data from scored TPAs. The inquiry mindset moves to a position where the data from a TPA can be used for curriculum review and program renewal. We propose that the use of TPA data for such purposes is a necessary precondition for a sustainable approach to professional accountability and for teacher educator agency in improving teacher education. By extension, it is a precondition for avoiding the otherwise inevitable treadmill of reviews into teacher education, many of which have led to no real reform (see Chap. 1). This inquiry mindset also recognises as essential (not optional) teacher educators' judgement and decision-making in online cross-institutional moderation (CIM-Online™, see Chap. 3).[3] This is taken to be the event where the profession exerts authority and self-responsibility in the application of standards. CIM-Online and the commitment to researching teacher education at-scale call for the application of digital technologies and the design of new infrastructures. The elements to support an inquiry mindset are elaborated in the final section of the chapter.

2.4 The Graduate Teacher Performance Assessment (GTPA)

This book introduces the Graduate Teacher Performance Assessment (GTPA) as a complex performance assessment undertaken over a sustained period of teaching in an actual classroom. It is an endorsed Australian TPA that is acting as a catalyst for mobilising a large collective of national partners to build an evidence base to show profession readiness. The development of the GTPA was part of a research project initiated and led by the Institute for Learning Sciences and Teacher Education (ILSTE), Australian Catholic University (ACU), commenced in 2015. The GTPA was piloted within two universities in 2016 and trialled in 2017 in 13 universities across six Australian states and territories. The purpose of the trial phase was for teacher educators to collectively formulate a performance standard applicable to preservice teachers at the point of entering the profession, that is, for establishing profession readiness. This standard had not previously been set (for details of this phase, see Wyatt-Smith et al., 2020; Wyatt-Smith et al., in press). National endorsement from the AITSL expert panel was received in January 2018 for national implementation. The GTPA is currently being implemented in a large national group of universities, referred to as the GTPA Collective (for participating universities see ILSTE/ACU, 2021).

[3] Acknowledgment: The online model of cross-institutional moderation (CIM-Online) was conceptualised and developed by the authors of this chapter. The work has been supported by digital architects in the Institute for Learning Sciences and Teacher Education, Australian Catholic University.

The GTPA is a summative or culminating performance assessment of teaching used to show the preparedness of the preservice teacher for professional practice and to make decisions about licensure for teacher candidates in all phases of schooling. It is an authentic teaching performance assessment located at the interface of the academic program and the school-based component of the teacher education program. Preservice teachers undertake the assessment drawing on information generated during a final year professional experience placement (practicum) of four or more weeks. The assessment requires demonstration of competence in the core practices of planning, teaching, assessing, reflecting and appraising, as described in the graduate level of the APST (AITSL, 2011) and the program standards (AITSL, 2015). In completing the GTPA, preservice teachers are required to demonstrate curriculum and pedagogic knowledge through a description of how they taught and justification of the decisions that were made. Thus, the assessment is a demonstration of pedagogic problem-solving and decision-making, allowing others to "see" the thinking that informs practice, bringing together theory and practice across an entire degree program.

2.5 Responsiveness to System and Site Validity

The GTPA is purposefully designed to generate valid and reliable evidence of the full teaching and assessment cycle. It has been designed to meet both system and site validity (Freebody & Wyatt-Smith, 2004); that is, it is informed by and makes response to policy (system) requirements through the professional and program standards, while recognising that site requirements can vary subject to context (e.g. individual university assessment policies and school expectations, often tied to school philosophy and mission) (Adie & Wyatt-Smith, 2018).

A main challenge encountered in the design and implementation of the GTPA was how to bridge the requirements of system and site level policies and procedures. During the conceptualisation of the GTPA, seven conditions were identified that needed to be in place to ensure validity and reliability of the assessment and consistent implementation across the wide range of ITE providers. These were

1. *Core design principles.* The design principles of the GTPA were grounded in the APST (AITSL, 2011), program standards (AITSL, 2015), research-informed assessment design principles, and practical professional experiences. This grounding reflects the key understanding that the GTPA is located at the nexus between the academic program (undertaken in the university) and the practical program (undertaken in the school). The points of connection between these two sites had long been associated with the dualism of theory and practice. Our approach in the GTPA was to confront this dualism and go beyond it to explore how they could be complementary in preparing and assessing the next

generation of teachers. The core principles specify the purpose of the assessment and are illustrated in the section below drawing on authentic preservice teacher responses to the GTPA.

2. *Conditions for fidelity of the assessment in implementation.* Conditions for fidelity were established to ensure consistency and integrity of GTPA implementation in ITE programs while allowing for situated responses to local needs (Adie & Wyatt-Smith, 2020). Specifying the conditions of fidelity was a necessary prerequisite to ensure equitable opportunity for success across participating universities and teacher education candidates. The identified conditions include

    a. maintaining the integrity of the assessment and criteria,
    b. the timing and duration of the final year professional experience placement in which the GTPA is completed (a minimum of four weeks),
    c. the context and duration for completion and submission,
    d. the originality of the submitted assessment with acknowledgment of sourced materials and ideas, and
    e. processes for assessment and cross-institutional moderation of the GTPA.

3. *Resource and data protocols.* These were formulated as they relate to a secure online portal that provides the GTPA and associated resources to all members of the GTPA Collective. A research data management plan was developed to describe the collection, management, data storage and security, retention, and ethical protocols.
4. *Centralised contacts for effective communication.* Centralised contacts in each institution were identified and established to channel information to all stakeholders within, and associated with, their institution.
5. *Strategic planning procedures.* These included the establishment of an advisory board consisting of a wide range of sector stakeholders who provide strategic advice and support and a risk management plan that identifies, rates, and outlines steps to mitigate risk. The plan proved useful in addressing the unanticipated and significant impact of the COVID-19 pandemic on progression in teacher education and workforce recruitment. The GTPA response to this crisis is addressed in Provocation 5 in Part 3 of this volume.
6. *A schedule of activities for meetings and moderation.* These included twice yearly, in-person meetings, moderation, and benchmarking activities (online and in-person), monthly online meetings known as Touchpoint sessions for GTPA Collective members, dedicated topic-driven online meetings, and the advisory board meetings (twice yearly online and in-person). These activities have two core purposes:

    a. dissemination of information related to TPAs and the GTPA specifically and
    b. collaborative discussion and problem-solving in response to emerging issues.

    These activities were essential at a time of significant change to ensure that the GTPA Collective, and other stakeholders were an informed community.

7. *Customised resources to support the intellectual work of judging using the established standard.* These include standards descriptors, authentic exemplars showing the application of the standard, cognitive commentaries for each exemplar illustrating how the criteria combine to form an overall judgement of quality, and verbal descriptors of the standard at the threshold, above standard and below standard.

The seven conditions were identified as necessary to meet requirements for valid and fair implementation of the assessment, including how this involved mentor teachers in schools, and consistency in the application of a common standard across sites. They were also identified as necessary to ensure that agency within individual universities was retained to steer site-specific responses, especially in their partnerships with schools and in accord with institutional priorities and policies.

2.6 Illustration of Core Design Principles

As referred to in the preceding section, the core principles of the GTPA are informed by the extant literature on (1) authentic assessment as based on actual, contextualised professional practice; (2) theory and research-informed practice in promoting learning; (3) cognitive models that capture pedagogic reasoning and reflexivity; and (4) data-based decision-making. Extracts from completed GTPAs are used to illustrate the design principles in action. They are authentic in that they are reproduced verbatim from preservice teachers' work samples. Only those work samples that have approval from individual preservice teachers consistent with university ethics requirements have been selected.

2.6.1 Authentic Assessment

The GTPA, as an authentic assessment, captures illustrations of teaching-in-action, acknowledging the dynamics of classroom interactions and the multiple variables that impact on the successful delivery and completion of an intended learning sequence. In completing the GTPA, preservice teachers provide illustrations of the continuous re-thinking and modification of teaching plans that is an authentic, contextualised representation of teaching. In the following GTPA work sample (Box 2.1), the preservice teacher describes an in-the-moment decision (Schoenfeld, 2008) to alter the intended Year 9 health education lesson plan in response to observed student interest in a related topic. Through the collated evidence, she demonstrated her knowledge of alignment and the iterative relationship between planning, teaching and assessing, recognising achievement of the intended learning outcomes for the lesson, even though the original lesson plan was changed.

Box 2.1 GTPA extract illustrating in-the-moment teaching decisions responsive to identified student learning needs.

Enacted teaching veered from original planning in a lesson focussed on safety in relation to drink spiking. The curiosity from the students surrounding drink spiking presented what I perceived to be an incredibly influential opportunity to embed learning of lifelong safety skills within the individual arsenal… Improvement in learning at all levels comes from identifying positive levels of engagement and then developing teaching behaviours that foster them best (AITSL, 2011). *Observations of student body language, enthusiasm in questioning and discussion formed the basis of my identification.*

In straying from the lesson plan, I facilitated informal whole class discussion covering content such as: What is used to spike drinks? Who is most at risk? Reasons for drink spiking, legal implications, etc. Students engaged in rich whole class discussion, created solutions to problems and were challenged to form justifications. Students researched and shared information in-the-moment, including prosecution for drink spikers, and street names for substances used.

Enacted teaching differed from the lesson plan, however the principal outcomes of the lesson were achieved…

In this response, the preservice teacher demonstrated an ability to "see" learning, connect it to prior teaching, and adjust strategies in deciding next steps. In a second example (Box 2.2), a preservice teacher working in a Year 4 mathematics class notices that some students appear to have mathematical anxiety. In this illustration of practice, the preservice teacher acts on evidence from their noticing, while maintaining a focus on the students' successful achievement of mathematical learning goals. The response shows the integration of responsive pedagogic practice and professional accountability to progress students' mathematical learning.

Box 2.2 GTPA extract illustrating how the preservice teacher has addressed site-specific variables and systemic accountability.

The biggest issue I faced was maths anxiety. Anecdotal evidence of this was seen when a number of students… started feeling ill and were wanting to be excused as soon as I notified them of the pre and post assessment… in order to combat this emotional response, the literature reviewed suggests that it is the more formal activities and assessments that evoke these emotions, so I utilised resources that would allow students to change mistakes easily… I had students work with a class-set of mini-whiteboards mainly in the "introduce/launch" phase of the lessons, and I found that students were engaged and responded well to using them to write down their answers, even those with some degree of

maths anxiety. Having students work in pairs was also an effective strategy as it took some of the pressure to perform well as an individual off the students, and it was evident in the work that they produced.

2.6.2 Theory and Research-Informed Practice

As a culminating assessment, the GTPA is designed as providing authentic opportunities for connecting university-based theoretical learning and practical professional experiences. The following example is from a GTPA response based on a professional experience in a Year 10 English class (Box 2.3). In the extract, the preservice teacher uses relevant educational theory, research, policy, and the APST to justify their pedagogical decision-making, in this case for a teaching focus.

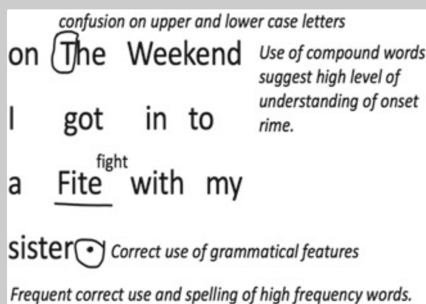
Box 2.3 GTPA extract illustrating use of theory, research, and policy to inform pedagogic decisions.

Readman and Allen (2013) *affirm that an effective classroom is one where assessment is "firmly embedded in the day-to-day practices of teaching and learning" (p. xvii). Therefore, as this text type was new to students, significant time was needed to be devoted to the teaching, modelling, and practice of structure, where students to be given the full opportunity to succeed* (Department of Education and Training, Victoria,2018; Gannon, 2009; Readman & Allen, 2013). *Thus, textual structure is a key focus of the unit and is represented in the lesson sequence* (AITSL, 2011).

2.6.3 Pedagogic Decision-Making

The GTPA is designed to capture the thinking and decision-making that informed teaching actions and related reasoning, with claims supported by a curated body of evidence. Justification of teaching decisions is made with regard to the curriculum and teaching context, including classroom context and the characteristics of individual learners. In the following authentic reproduction of a Year 1 student's writing, the preservice teacher has provided annotations on the work to demonstrate their understanding of the student's knowledge and skills to use grammatical features (Box 2.4).

Box 2.4 GTPA extract illustrating preservice teacher annotations on Year 1 student's work and the accompanying analysis.



[The student] *demonstrated impressive use of onset and rime and as a result was able to sound out high frequency and abstract words effectively with minimal errors. She was also able to correctly use full stops at the conclusion of her sentences and illustrated high proficiency in letter formation exhibiting little errors.*

In the annotations above, we see how the preservice teacher determined that the student was working above expected year level standard. She went on to describe the learning opportunities that would extend this student and others in the class with a similar standard of writing skills through "tasks that required them to use extended vocabulary, explore synonyms and develop understanding of personal connections to text through engaging in student-led discussion and role play". This example illustrates how preservice teachers can demonstrate their ability to adjust and justify their teaching decisions, according to curriculum requirements, while directly responding to identified student learning needs.

2.6.4 Data-Based Decision-Making

To complete their GTPA, preservice teachers collect data of whole class learning, with particular attention on three focus students who are representative of the range of achievement in the class. Initially, the data are used to inform planning decisions. Ongoing data collection through formative assessments is used to continuously modify lesson plans to meet learner needs. Summative assessment data are used to appraise the effectiveness of teaching and plan next teaching and learning steps. The GTPA involves the collection of a wide range of data types as evidence of student learning across the full cycle of teaching (planning, teaching, and assessment). Preservice teachers list all data used to inform their practice, identify the

purpose, source, designer of data source (self or commercial), relevant APST being met, and whether the data are related to whole class or an individual student.

The following example is an extract of some of the data collected by a preservice teacher in a Year 2 class when developing a mathematics (number and place value) unit of work (Box 2.5). It illustrates the design intention of the GTPA for the integration of multiple sources of data and a range of curriculum and pedagogic knowledge and skills.

Box 2.5 GTPA extract illustrating the preservice teacher's collection and use of data to inform planning.

PM reading levels indicated students, including [one focus student]*, may need extra support to decipher text to have access to the learning. Discussions with my ST* [supervising teacher] *revealed that even though many students reading levels were high within the class, comprehension may still be a barrier for some students. I used this to inform my planning, ensuring all students had multiples means of access…*

Class attendance records highlighted a high rate of late arrivals and absences for one student which correlated with his consistent low achievement level. This informed my planning to ensure critical learning of new concepts was addressed later in the morning where possible. A parent-teacher meeting discussing the same student, revealed strategic student pairing increased the student's engagement and motivation, which heightened his performance. Knowledge of this informed decisions to systematically group the student to encourage engagement. Consideration of this student's IEP [Individual Education Plan]*, along with other students' needs, I planned to implement strategies such as using concrete materials, verbal prompts, visual aids, scribing, individual assistance and small group work* (Killen, 2013).

Observations of selected students revealed prior knowledge of Year 1 number and place value achievement standards, and skip counting in twos, fives and tens (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2019)*. Observed students demonstrated an understanding of using a collection of objects as countable units, foundational understandings in introducing early multiplication and division concepts* (Siemon et al., 2015)*. This was consolidated through documentation supplied by my ST that highlighted students' ability to skip count and use various units as countable items as fundamental prior knowledge. Informal discussions with my ST and observations of student workbooks revealed the majority of student mathematic learning was through hands-on activities and white-boards. Minimal documentation was evidenced in their mathematic books, which was primarily limited to mental mathematics. However, it did reveal some indication of students' ability in grouping. Informal discussions with my ST, confirmed students had some previous experiences with grouping, foundational concepts for early multiplication and division* (Siemon, et al., 2015).

> *For a more informed understanding of students' knowledge, I implemented a whole class diagnostic pre-test adapted from Back-to-*Front Maths (2016)*, which highlighted students' readiness, possible misconceptions and simultaneously informed planning. Additionally, I undertook diagnostic interviews adapted from the Department of Education and Training, Victoria* (2019)*with a selection of students, including the three focus students for a deeper understanding of students' knowledge…*

Following this description of data collection, the preservice teacher provided evidence in annotated unit and lesson planning documents of the ways in which the collected data informed the design of the unit of work for the class and was differentiated for individual student needs.

The four core design principles illustrate how the GTPA acts as an authentic complex performance assessment of teaching in that it involves the integration of multiple theoretical and practical knowledge in ways that are responsive to the site-specific needs of schools and students. The principles also identify how the design of the GTPA requires preservice teachers to see their practice as an inquiry that draws on a range of evidence types to inform their ongoing teaching and learning. However, early in the design process, it was evident that the assessment itself was only one element in the response to the reform policy. If culture change in ITE was to be realised, all seven conditions needed to work together. In the process of bringing together all conditions, we recognised that culture change in ITE involved the interaction of many elements including new purpose-designed digital architecture and systems to facilitate collaboration among those involved in teacher education.

2.7 Conclusion

This chapter began with the observation that quality as a common term is overly used and remains elusive in the context of teacher education. The discussion laid out a framework depicting alternate responses to the introduction of TPAs in Australia as a top-down policy reform. Similarities and differences in response are presented, noting that they represent different constructs of accountability. A key distinction is between being held to account and giving an account (Lingard et al., 2017). We argue in the chapter that the use of large-scale data for examining the application of a common standard and for curriculum review and program renewal are necessary preconditions for a sustainable approach to professional accountability and for meaningfully addressing a quality agenda. We also assert that teacher educator access to, and skilled use of, data in local contexts is a precondition for engaging seriously with a teacher education quality agenda and short-circuiting the inevitable continuing reviews of teacher education. The discussion then considers briefly system and

site validity and the necessary enabling conditions for generating evidence at scale through the introduction of a new TPA.

Within the GTPA Collective, there has been an evident commitment to the development of a generative approach to culture change. This has involved commitment to share materials and experiences and form new identities within a national group, themes which are taken up in Part 2 of this book. The approach to CIM-Online as we have developed it for teacher education is internationally distinctive. This is a key element in progressing culture change in teacher education. While the work to build an evidence base to show quality in teacher education through a TPA is in its infancy in Australia, there are already emerging signs that the GTPA has significant implications for building public confidence, and in turn, the status of the profession. In taking up the challenge to give an account of the quality of teacher education and use this information to review and renew ITE programs, teacher educators are collaborating at scale to change the culture of teacher education.

Five years after, we took the path less travelled in responding to the call for reform, and we reflect how it has provided an opportunity to reclaim professional accountability for the profession and by the profession. In one vision of the future, the TEMAG recommendation to introduce TPAs is but another reform in a continuing sequence of reforms, with a legacy of undermining public confidence in teachers and teacher education. Perhaps in this vision, responsibility for the next generation of teachers is handed to edu-businesses with expertise in standardised testing but that are at a distance from the preparation of teachers and school–university partnerships. This vision has potential to reallocate responsibility for determining professional competence outside the profession.

Finally, we reflect that culture change through TPAs is a difficult experience and their uptake has varied significantly across the country. Much work remains to be done if we are to get the introduction of TPAs right. What is at stake is responsibility for determining the competence of the next generation of teachers. In an alternative vision of the future and the one we prefer, responsibility for determining graduate competence is vested in the profession.

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Chapter 3
Introducing a New Model for Online Cross-Institutional Moderation

Claire Wyatt-Smith and Lenore Adie

Abstract The completed validation of a new teaching performance assessment (TPA) provided an opening for developing a fit-for-purpose model for online cross-institutional moderation. The new customised model was intended to function within the Graduate Teacher Performance Assessment (GTPA) systems and processes for quality assuring that the established standard—an outcome of the year-long trial of the instrument—was being applied consistently across the collective of universities that chose to take up the GTPA. Through the Research and Development (R&D) Program (Workforce Studies Series) led by the Australian Catholic University in partnership with the collective, we learned that the professionalisation of teacher education required more than a TPA endorsed through external expert review processes. It required not just evidence of the validity and reliability of the new competence assessment with accompanying samples of the standard at the threshold (minimum acceptable level) and related quality assurance processes. Critically, it required the generation and analyses of data that could serve the longer-term purpose of supporting the implementation of the instrument and related standard, now expected by the GTPA Collective to be applied to the range of ITE programs offered across universities. The trust of teacher educators and the public rested on pursing this goal, as established by the R&D team and teacher educators themselves. The model introduced in this chapter represents a bold move towards national benchmarking of participating universities and was designed and developed by the authors and progressed through a large, networked community of researchers, teacher educators and policy personnel. The features and functions of the model are discussed, and the preconditions for the effective use of the model for both summative (reporting) and formative (improvement) purposes are introduced. We propose that the cross-institutional moderation online (CIM-Online™) methodology that has been developed, contributes to building both public confidence in graduate quality and the confidence of teacher educators

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in applying a common established standard in teacher education programs nationwide. Finally, we summarise the processes that need to be in place for effective CIM-Online to generate data able to show the quality of teaching graduates and to inform curriculum review and program renewal.

3.1 Introducing the Model of Cross-Institutional Moderation Online

This book adds to the weight of claims that the quality of teaching and assessment are consequential for student learning (see Chaps. 1 and 2). This chapter carries forward this view and sketches a model of cross-institutional moderation online (CIM-Online™)[1] as integral to quality, assuring the effectiveness of teacher education programs and the quality of graduates entering the workforce. CIM-Online is a form of national benchmarking showing the application of an established and accepted standard of teaching competence at the conclusion of teacher preparation. The model is a main outcome from the Research and Development (R&D) work that began with the development, trialling and validation of the Graduate Teacher Performance Assessment (GTPA®; https://www.graduatetpa.com/)[2] and the related standard. Figure 3.1 depicts a conceptualisation of the developmental layers of work completed to date in the GTPA R&D program. It shows six layers of development that we believe to be integral to the productive introduction and use of teaching performance assessments (TPAs) for summative (reporting) and formative (improvement) purposes. The advantage of taking a joined-up approach to both purposes is that the focus can be on reporting and using the data generated through CIM-Online for curriculum review and program renewal.

Figure 3.1 attempts to convey how a TPA is "not just another assessment". While the design of the instrument is shown as above the waterline, other layers of activity, all below the waterline, are essential for building the necessary evidence base to support implementation.

From the beginning of the assessment development and 2017 trial (see Chap. 2), one of the driving questions informing the R&D Program was: What do we know about graduate preparedness for practice on completion of teacher preparation? The answer has two parts: first, internal to universities, there existed considerable data,

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[2] Acknowledgment: The Graduate Teacher Performance Assessment (GTPA®) was created by the Institute for Learning Sciences and Teacher Education (ILSTE), Australian Catholic University, and has been implemented in a Collective of Higher Education Institutions in Australia (graduatetpa.com). ILSTE has led the validation of the instrument, standard setting and cross-institutional moderation with the engagement of teacher educators, policy personnel and a multidisciplinary research team.

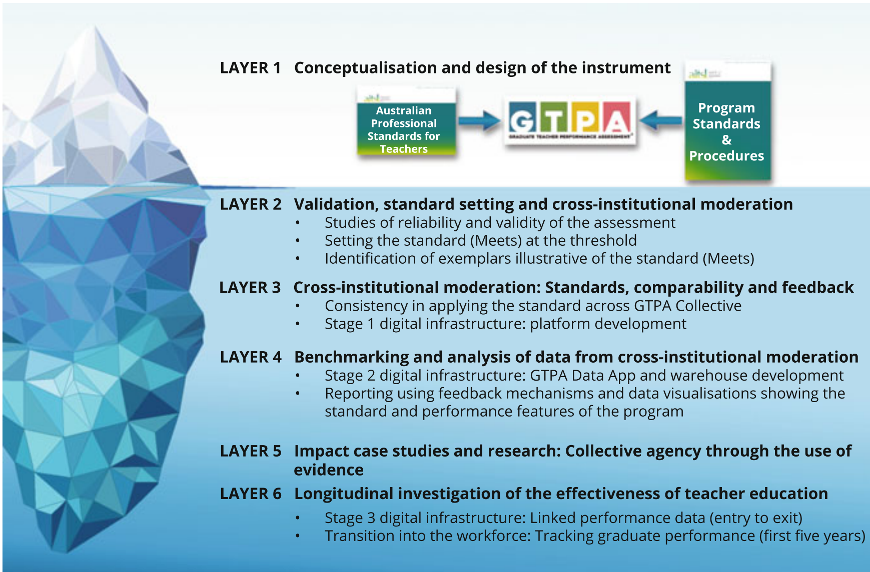

Fig. 3.1 Conceptualising the GTPA and moderation as connected layers of research and development

collected annually, to show completion of the necessary assessments, both in the academic program and in the practical or school-based program. Evidence existed to show grades within and across completed assessments and where second and subsequent attempts at assessments were undertaken. There were also in some cases portfolios that preservice teachers had submitted to show their developing professional identify across the course of the program. There was however no extant data to show graduate competence derived from a validated summative or culminating complex performance assessment intended to demonstrate readiness to enter the classroom in the final year of preparation.

Figure 3.1 shows the layers of R&D that were integral in the maturing implementation of the GTPA. Above the waterline is "the first ask" to design a validated performance assessment (Layer 1). Five subsequent layers are depicted below the waterline, with several employing some form of moderation activities. These range from cross-institutional moderation used initially in the process of standard setting and validation of the assessment as part of the trial (Layer 2; Wyatt-Smith et al., 2020) and as a continuing feature in the following activities:

- CIM-Online, as an annual scoring event, is scheduled for a duration of approximately one month and involves teacher educators from each of the participating universities in the GTPA Collective (Layer 3). This involves online scoring of de-identified samples provided by the universities to show the full range of achievement.

- Analysis of scoring outcomes to investigate how the established standard has been applied by raters and to demonstrate inter-rater reliability (Layer 4). In this benchmarking activity, a main focus is on comparability of judgements. Results from the analysis of scores are reported confidentially to each participating university. Preservice teachers' performance characteristics against the specified criteria are also analysed to show program strengths and areas for further development. Taken together, the analyses produce evidence for both summative (reporting) and formative (program review and renewal) purposes. Confidential reports are produced and returned to each participating university with attention paid to safe transmission. A meeting between the senior teacher education staff of each university and the research team then occurs to discuss the reports and consider next step actions.
- Building on the reported data, participating universities use the data to research and inform their program review and renewal (Layer 5). This stage of the work is in its infancy, recognising the limited requirement to date for teacher educators to use the outcomes of data analytics of the type produced in Layer 4 and for use in Layer 5.

Extending on this, current work (Layer 6) involves the design and collection of data for linking the validated GTPA to other high-stakes assessments in teacher education programs. The analysis of the linked data is used to examine pathways into teacher education and candidates' performance trajectories from entry to exit from the program and subsequent transition into the workforce over the first five years (see Chap. 16). This longitudinal approach to linking ITE is unprecedented and has potential for investigating performance trajectories of sub-cohorts of special interest. This is already opening the space for identifying the points at which preventative action could be taken to address barriers to success and, in so doing, intervene to improve candidate retention and completion rates.

3.2 Moderation in Teacher Education

From the outset, we assert that moderation can take many forms (Bloxham et al., 2016). Fitness for purpose is the centrepiece for decisions about form. Most universities would claim they rely on internal moderation, that is, moderation conducted within a university for assuring grades before submissions are made to assessment panels or committees for ratification. Internal moderation can take the form of consensus or social moderation where staff meet to review and reach agreement on grades awarded. However, research in universities shows that moderation processes can attend to a plethora of matters that may include claims of agreement among judges or scorers, with little, if any evidence, that would count as rigorous analysis of how the expected standard was applied and indeed whether a shared understanding of the standard informed judgement processes and decision-making. The extent to which the moderation processes in teacher education could be considered rigorous is an

interesting point to ponder. The key question is what evidence can be produced from social agreement to demonstrate reliability, including as this relates to comparability of judgements within a program, and extending to across campuses.

In their review of teacher education in Australia, the Teacher Education Ministerial Advisory Group (TEMAG) acknowledged "the paucity of information about the performance of teacher education programs" (Craven et al., 2014, p. 41). They also noted that research commissioned by the Group had identified how efforts to benchmark Australian ITE programs against high-performing international programs "was problematic" (Craven et al., 2014, p. 41). The review recommended the mandatory introduction of graduate competence assessment against an agreed benchmark for profession entry requirements stating that "Consistent and transparent graduate assessment against an agreed benchmark is a key feature of profession entry requirements both internationally and in comparable professions in Australia" (Craven et al., 2014, p. xix).

As we began the exploration of standards, judgement and moderation in teacher education, we identified that there was no prototype for TPAs in Australia (as discussed in Chaps. 1 and 2) and no prototype for moderation and benchmarking that involved cross-institutional moderation. While teacher educators bring a range of experience and evaluative expertise to their work, there was no pre-existing culture of large-scale, cross-institutional moderation, either in-person or online, in ITE. There was also no large-scale published data showing the impact of moderation on cross-institutional results especially as it concerns the comparability of results across institutions. This leaves the issue wide open of whether the standard awarded in a final year competence assessment in teacher education is comparable across universities. This observation holds not only in teacher education but in a range of other professional preparation programs, for example, in medical training.

3.3 Conditions for Ensuring Dependability of Judgement

Judgements made for summative purposes, especially when these decisions are consequential for licensure, need to be dependable. This is particularly the case when judgements are based on practitioner scoring which has been criticised as subjective, remaining open to the influences of bias, error, even whimsey. It is well recognised in the research literature that when criteria and standards are written using qualitative language (descriptive terms), they remain open to interpretation (Harlen, 2004). In this section, we build on Wiliam's (1994) and Harlen's (2004) work on the dependability of teacher assessment for summative purposes and ask the question: under what conditions can judgements of teaching performance assessments by teacher educators be made dependable?

Wiliam (1994) defined dependability as "the extent to which inferences within the domain of assessment are warranted" (p. 18) and located dependability at "the intersection of reliability and content validity" (p. 18). Harlen (2004) identified five key actions that could be used to address issues of dependability which include "the

specification of the tasks; the specification of the criteria; training; moderation; and the development of an 'assessment community' within the school allied to increased confidence in the professional judgment of teachers" (p. 28). Building on Harlen's (2004) five key actions, we added a sixth action, illustrative exemplars and associated cognitive commentaries (see below and Chap. 2). These provide the means to show expected characteristics of performance and reveal the processes relied upon to arrive at an overall assessment. The function of these commentaries is to provide novice or less experienced assessors with insider information about how criteria and standards are applied in particular illustrative cases and how perceived strengths and limitations of a performance come to be combined—traded off against one another. In this aspect, we recognised that applying a "new" standard involved installing ways to support judgement processes including modelling a language in which assessors could talk about and share how they arrived at an overall judgement. We took all six actions as essential to efforts to achieve dependability of the GTPA. These actions bring together the validity of the instrument, the reliability of teacher educator judgements and the comparability in applying a common standard in ITE, as key conditions for establishing the profession readiness of preservice teachers.

Key action 1: **Specification of tasks** is addressed in part through the validated assessment instrument and guides that are developed to support completion of the assessment. Specification of tasks is also addressed in the clarity and timeliness of instructions provided to teacher educators on how to go about the assessment and scoring activities.

Key action 2: **The specification of criteria needs to show alignment** with the informing professional standards, and so be recognisable to judges.

Key action 3: Since criteria alone are insufficient for reliable judgements**, calibration and other training activities** are provided. Calibration of raters to the expected standard involves in-person and online discussions of task and criteria requirements and expected quality of response, as well as online activities using selected exemplars that illustrate the application of the standard.

Key action 4: **Moderation** in the form of CIM-Online is an ongoing annual event across universities with scoring by teacher educators from each university belonging to the GTPA Collective. This process involves the use of decision aids (discussed below) to inform judgement-making.

Key action 5: Judgement activities combined with opportunities for sharing and collaboration are essential for the build of an **assessment community** that is supportive and self-regulating.

Key action 6: **Illustrative exemplars and cognitive commentaries** to show how stated features of quality and the defined standard (Meets) are applied in practice. The commentaries reveal how strengths and less well-developed features in a performance are combined to arrive at an overall judgement of quality.

Ethics processes for approved access to and use of authentic samples were critical to all project actions. Each of the above actions contribute to a broadened notion of moderation in teacher education and as guidelines for developing quality assurance systems and processes that are essential to the promulgation of the established standard. Key actions 3, 4, 5 and 6 in particular take up the affordances of technology within a sustainable model for online moderation, that is CIM-Online. As discussed in the remainder of this chapter, the model includes online submission of completed assessments, reading and scoring of samples, use of judgement protocols and practices for cross-institutional collaboration and training for teacher educators in the implementation and marking of the GTPA.

3.4 Implementing CIM-Online Processes and Practices

From our experiences as assessment scholars, we recognised that statistical moderation has been widely practised and reported in the fields of educational assessment and measurement, and program evaluation. We also had direct experience of contributing to research and policy related to social moderation (in-person and online), across the years of schooling and including high-stakes senior examinations (Adie et al., 2012; Wyatt-Smith et al., 2010). Taken together, these formed the composite of experiences that informed the R&D Program work to build a culture of CIM-Online in support of GTPA implementation across a large number of universities. CIM-Online as a process should be distinguished from moderation undertaken internally in individual universities. It involves the use of customised decision aids and purpose-designed modelling of judgements using exemplars, as described below.

CIM-Online as conceived for the GTPA invites teacher educators to take up two complementary roles: (1) an agentic role in scoring de-identified samples produced by teacher education candidates drawn from across the country and (2) to use the validated data from the analysis of reported scores for curriculum review and program renewal. These dual roles are integral to efforts in Australia to build public confidence in graduate quality.

3.4.1 Who is Involved in Scoring?

In CIM-Online, GTPA raters are teacher educators from universities participating in the GTPA Collective and retired and practicing teachers and school leaders. Each participant has undergone calibration training before commencing scoring. This requirement for training reflects the understanding of the complexity and challenges for achieving high levels of reliability when the assessment is scored by practitioners who bring a wide range of experience (e.g. years of teaching, prior study, phase

of schooling) and expertise (e.g. content knowledge, pedagogical content knowledge and evaluative knowledge and experience) and who are drawn from multiple institutions with different assessment policy contexts.

3.4.2 What is Involved in Calibration to Build Judgement Dependability?

GTPA implementation routinely brings new teacher educators to the GTPA Collective each year (see Chap. 2). To ensure that performances continue to be scored against the established standard, it is essential that both experienced teacher educators and those who are new to teaching into ITE participate in training for scoring within their institution and in application of scoring to real samples from across the country. The calibration training is provided through the online GTPA Library (https://www.graduatetpa.com/discover/), and an online calibration training exercise is made available two weeks prior to the online moderation activity. Calibration training consists of scoring three GTPA samples at the levels of Meets (minimum acceptable level), above and below the standard. On completion of scoring, the raters are provided with a cognitive commentary (described below) to explain the reasoning for the judgement. In the GTPA, calibration is a pre-requisite for rigorous cross-institutional moderation processes.

3.4.3 What Do Raters Do?

Samples representing the full range of achievement from each participating university are submitted for CIM-Online. Raters apply the established standard to score de-identified samples, working individually and online. That is, they are not brought together for face-to-face in-person meetings. Two types of judgements are recorded; the first involves assessing the work against the established standard; the second involves applying the expected characteristics of quality or criteria. Each sample is assessed by six to ten raters, with a higher number of ratings given to samples submitted by the participating universities as near or at the threshold (minimum acceptable level for a Pass). The basis for arriving at judgement is the analysis of the sample against the established standard and with reference to the scoring rubric; it is not direct inter-sample comparison.

3.4.4 What Material Artefacts Are Used?

The implementation of quality assurance systems for ITE required us to develop a number of processes and resources to support judgement practices in the GTPA project. The combination of criteria specifications, performance level descriptors (PLDs) and exemplars with accompanying commentaries of judgement decisions (cognitive commentaries) work together as a key means to build the dependability of teacher educator judgements (Fig. 3.2). The strength of this combination lies in their potential to build quality assurance systems and processes necessary to lift the quality of ITE and, in turn, public confidence in teacher preparation. The use of exemplars selected to show the features of quality that satisfy a standard has been linked to the utility of criteria and standards in making dependable judgements (Sadler, 1987; Wyatt-Smith & Adie, 2019). Following is a description of each of these key resources.

1. **Criteria specifications** provide a map to the professional standards (Australian Professional Standards for Teachers [APST], Australian Institute for Teaching and School Leadership, 2011) in the related scoring rubric. A critical aspect of the standard setting activities (Layer 2 in Fig. 3.1) was the development of a shared understanding of the criteria through dedicated online and in-person meetings. An important part of this training was to focus on the alignment of the GTPA with the APST and specifically, to identify the multiple opportunities provided in the GTPA for demonstrating aspects of the APST. These discussions set the stage for judgements made as part of standard setting and ongoing moderation activities. The discussions continued after the trial through focused in-person activities working with exemplars and other decision aids and through online meetings and individual online calibration activities. In-person and online

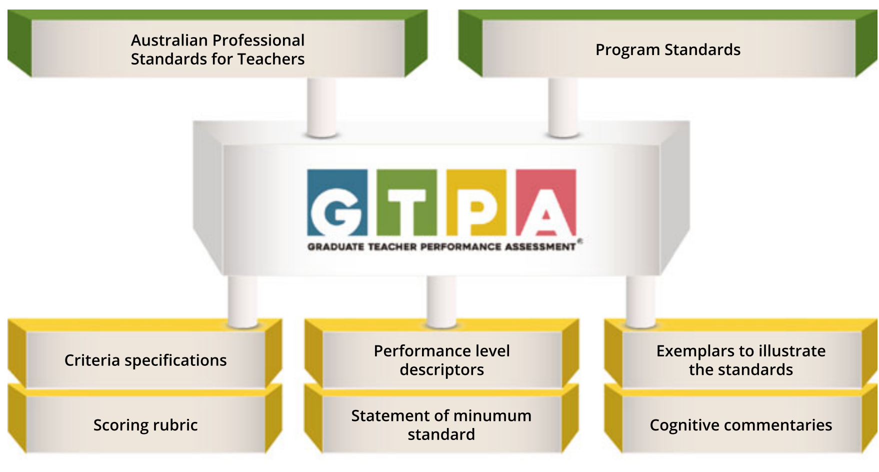

Fig. 3.2 Resources that support the GTPA moderation processes

calibration activities are instrumental to developing shared understanding of the meaning of the words used in the criteria and how they relate to distinguishing properties of standards at the level of Meets and the related levels.

2. **Performance level descriptors** (PLDs) identify performance characteristics of work assessed at three levels (at, above, below the standard) as well as a statement of the minimum accepted performance. These are explicitly linked to the criteria and the professional standards at graduate level. In the standard setting and validation activities (Layer 2 in Fig. 3.1), the PLDs were the common reference points for considering the work, distinguishing it from individual university standards for grading academic performance or professional experience with which teacher educators were familiar. It was emphasised that the PLDs were illustrative and not exhaustive, that is, they were not designed as a wholly comprehensive checklist of expected features. Accordingly, the PLDs were not designed for raters to tick off discrete aspects of the work and then for scoring to be based on counting those that had been met and those that had not been met. The evaluative expertise of teacher educators as raters was the basis for inferring the quality of the work, informed by the descriptor.

   The PLDs continue to be used in ongoing judgement activities as a qualitative starting point for determining the characteristics that represent a performance level as well as describing entry-level teaching expectations. Their primary purpose is to support teacher educators as they read and review samples (1) to develop their sense of overall level with a particular focus on Meets, (2) to train the eye to identify anticipated features of quality in preparation for using the scoring criteria and (3) to begin to discern different patterns of performance across the samples. They are accessible to scorers online and in hard copy.

3. The use of carefully chosen illustrative exemplars with commentaries is recommended practice for building the dependability of qualitative judgements. They have been shown to help in communicating the meaning of the standards written as verbal descriptors (Wyatt-Smith & Gunn, 2009). **Exemplars** in the form of validated preservice teacher samples, that is, from a previous moderation process, are chosen to illustrate expected features of the standard. In line with the literature, we understand that exemplars "can only ever be illustrative of a standard because there will be many possible ways in which students can demonstrate that the standard has been achieved" (Hipkins & Robertson, 2011, p. 12). Thus, a variety of exemplars, with varied characteristics, are chosen to illustrate work assessed to be at, above and below standard. The range of samples is purposefully drawn from different contexts to show different ways in which the requirements of the standard may be met in different discipline areas, phases of schooling, and school contexts. The selection of samples is conducted with the aim to maintain the openness of raters to a range of possible responses. However, the use of exemplars does not change the basic issue of interpretive consistency. It remains necessary to provide a social environment in which meanings are tested and clarified (Wyatt-Smith et al., 2010) to understand why each exemplar fits the relevant standard and to be adaptable to performances

that are different. In the GTPA Collective, this social environment is achieved in the monthly online meetings, as discussed in Chap. 2.

4. **Cognitive commentaries** of judgement decisions are explanations of the features of the performance that informed the judgement decision. As mentioned earlier, the commentary is evaluative in purpose; it seeks to reveal the processes through which the rater arrived at an overall judgement, including the use of the stated criteria as well as unstated aspects (e.g. how criteria are valued and combined, or additional criteria that may be called into play). In summary, the strengths of the performance and the less well-developed performance aspects are identified in commentaries as well as how the former compensate or trade-off for the latter in arriving at the overall judgement decision. The commentaries can also explicate or make available information about additional factors that shaped judgements. Of note is that research has shown that criteria and standards do not necessarily wholly account for influences on judgement and further that final scores typically leave little, if any traces of these influences. The commentaries therefore seek to make available meta-knowledge (see Wyatt-Smith & Klenowski, 2013 for discussion of explicit, latent and meta-knowledge) that can influence the processes of arriving at a judgement.

Customised digital infrastructure developed by the multidisciplinary research team was also needed to move forward with cross-institutional moderation that was not dependent on face-to-face meetings.

3.5 Digital Infrastructure for Moderation as Benchmarking

In this section, the inclusion of digital technologies was critical in building a nationally sustainable model of cross-institutional moderation that we regarded as being at the core of the reform of ITE as it relates to standards and evidence. Across the stages of GTPA development and implementation, fit-for-purpose moderation practices have been designed as a mix of social and statistical moderation as components that are conducted both in-person and online. From commencement of the GTPA project in 2016, the universities in the GTPA Collective have been geographically dispersed across six states and territories of Australia. The submission and collation of data and participation of teacher educators in scoring activities from the multiple universities could not be hindered by distance and so participation needed to be accessible using online technology. A second imperative was the development of a sustainable system of data submission, management, scoring, analysis and reporting with the possibility of escalation in future participation by new universities nationally and potentially across international borders. This required the development of customised infrastructure to bring together the range of digital technologies employed at the different stages of moderation. The software system and data warehouse, *Evidence for Quality in Initial Teacher Education* (EQuITE©), were developed to enable participation from universities across the country and to retain release of

data in the control of each university in the GTPA Collective. The establishment and maintenance of the digital infrastructure are underpinned by the need for privacy and confidentiality of the samples.

Each university that is part of the GTPA Collective contributes a quality range of de-identified samples (at, above and below the standard), previously scored and moderated within their site, for cross-institutional moderation purposes. A further check for de-identification is made by a team within the Institute for Learning Sciences and Teacher Education (ILSTE), Australian Catholic University, to ensure samples are wholly de-identified (that is, student, teacher, school, preservice teacher, teacher educators or university names or images are removed) and traces of previously awarded grades are removed. This second step is completed to meet the requirements of ethics approval and to limit the potential for bias that can occur, for example, when institutional details and candidates are known.

The scoring of samples is undertaken by large numbers of raters through an online Web portal from their own locations, with minimal inconvenience other than the time taken to undertake training and to carefully score the allocated samples against the standard. Stacks of samples for scoring that include anchor samples are organised through FileMaker dynamic programming. The simulation takes into account the attributes of scorers (e.g. university; numbers of samples to be allocated) and the attributes of samples (e.g. contributing university; pre-moderation quality indicator). This design of sample allocation is necessarily rigorous for the purposes of measuring consistency of scoring against the standard and establishing reliability of the instrument. Each rater is allocated samples from across the quality range including samples that were identified by the submitting university to be below the standard (does not meet), above the standard (Meets) and Meets the standard at the threshold (minimum acceptable level). Other considerations include the total number of samples to be scored, the distribution of received samples across the quality range, the number of scores required to measure consistency in scoring for a sample, the number of raters who agreed to score and the number of samples that a rater could be expected to score given their time allocation. Raters are allocated samples from different universities: they do not score their own university samples. Further, the samples they are allocated include variation of contextual information including type of degree (undergraduate or postgraduate), learning subject area and year-level phase of teaching.

Allocation of GTPA samples to raters is additionally based on the principle that performances of quality close to the threshold of the standard are scored by at least ten raters, and samples that are considered by the submitting university to be clearly above or below the threshold are scored by at least six raters. The higher number of raters for samples submitted as at the threshold reflects how these samples are regarded as "hard" (more demanding) to score as it involves a decision about whether the samples meet (or do not meet) the standard. Further, the rater workload is contained to an acceptable level of 15 samples each, as agreed by the collective. This number allows for sufficient scores to be generated to compute an overall measure of reliability with a reasonable degree of accuracy. For example, in the October 2019 scoring activity, the majority of 76 raters each scored 15 samples including two anchor samples and

a selection of 13 samples that covered the range from does not meet, Meets at the minimum acceptable level and Meets above the threshold.

The intent to demonstrate reliability of judgement against an established standard includes the use of anchor samples that track any movement of the standard over time. Standards can rise and fall. Unless attention is paid to the inclusion of anchor samples in the moderation event, it could be argued that it was easier to graduate from teacher education in a particular year. This raises issues of fairness (as discussed in Chap. 2). Legal precedence for cases contesting grading decisions in the case of the Educative Teacher Performance Assessment (edTPA) and Performance Assessment for California Teachers (PACT) is instructive for Australia (see Chaps. 1 and 17). The digital infrastructure supports an approach to longitudinal monitoring of the data to track any shifts in the standard over time.

Data analysts are responsible for cleaning the data, preparing the data, and running the reports. Scores awarded to samples are analysed using a Multi-Facet Rasch Model (MFRM; Linacre, 1994; Rasch, 1960) fitted to the scores that raters produce in applying the established standard. Analyses of outcomes from CIM-Online produce essential reliability data and show the relative performance of each sample in the corpus of samples. CIM-Online is the centrepiece of the GTPA quality assurance systems and processes, yielding essential data showing how raters apply the established standard. It produces evidence to show the reliability of judgements as well as new knowledge about rater severity and leniency.

3.6 Submission of Cohort Data for Analysing Program Characteristics

Participating universities submit cohort data consisting of criterion-level scores and contextual information including school location and phase of schooling. A purpose-designed GTPA app facilitates online collation and storage of cohort data. Individual universities control their own data and determine which data are released for GTPA analysis purposes (for further details on the digital technologies and infrastructure see Wyatt-Smith et al., in press).

In summary, data generated from CIM-Online show how universities are assessing performance against the established standard of graduate readiness. Cohort data analysis provides information on the strengths and weaknesses of programs and also the opportunity for monitoring trends relative to program performance over time.

3.6.1 Reporting

The data from CIM-Online and cohort data analysis are presented in customised reports for each university using a range of visualisation approaches. Reports using

these approaches show (1) application of the standard at the program level and (2) patterns of performance at the criterion level. Beyond these purposes, the reports can be used formatively to support active inquiry into preservice teachers' achievement, program quality and how the locally enacted standard relates to the established standard applied in cross-institutional moderation. Such actions are illustrative of an inquiry mindset as discussed in Chap. 2 and shown in Fig. 2.1. The data-rich reports provide new information for teacher educators to make informed decisions about the effectiveness of ITE programs and their capacity to prepare a highly skilled professional workforce. Intertwined with these developments is a focus on improving data literacy of the participating teacher educators by connecting pre- and post-moderated judgements. The development of teacher educators' data literacy has occurred, in large part, through active engagement with customised applications of digital technologies.

The aim of the reports is to build actionable evidence and to build capability in inferring the meaning of the data, using this as evidence to review and renew programs. The ILSTE research team has collaborated with the collective in feedback about different approaches to data visualisation to ensure fitness for purpose. As shown below, this includes associating information about the verified (and non-verified) judgements in the application of the standard (Fig. 3.3) with criterion-level

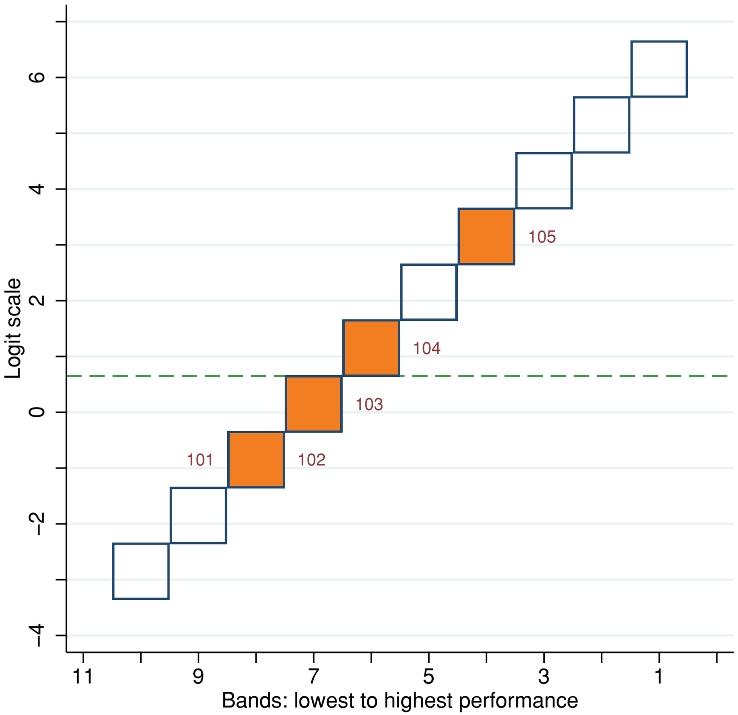

Fig. 3.3 Location of verified samples in like groups relative to the standard

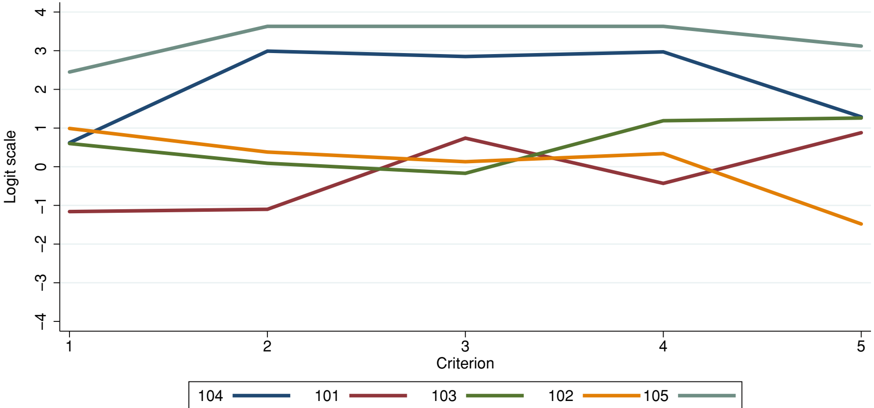

Fig. 3.4 Criterion-level performance information [lines]

performance information (Fig. 3.4). Readers are advised that all figures in this chapter are illustrative only and do not use actual data.

The graph shown in Fig. 3.3 provides information on the relative measure of performance for each GTPA sample on the logit scale (vertical axis) and the relative rank order (horizontal axis), based on the scoring from CIM-Online. The green horizontal line shows the location of the passing standard (Meets). The samples are grouped in bands where the height of the band represents two standard errors of the performance measure. There are ten bands, with band 1 representing the highest ranked samples in the collective. Bands 1 through 6 represent groups of samples that are judged as meeting the standard. Bands 7 to 10 are judged as not meeting the standard. Samples provided by an individual university are given a unique sample number. In Fig. 3.3, these are indicated within the orange-coloured bands showing their positioning relative to the established standard (at, above, below). From the positioning of samples within the bands, teacher educators can determine those samples for which the standard awarded by the university has been verified (or not verified) through CIM-Online. When there are discrepancies between the university awarded judgements and CIM-Online outcomes, teacher educators undertake further discussion of scoring and their own university moderation practices with a concentrated focus on the application of the standard. This is one of the formative purposes of the reports that goes well beyond complying to policy, to facilitating teacher educators' use of data at-scale for active inquiry into issues of quality.

Fig. 3.4 graph shows ordered patterns of performance at the criterion level for each of five samples. The GTPA uses five criteria to assess performance—planning, teaching, assessing, reflecting and appraising—as represented under Fig. 3.4 as criteria 1 to 5. In Fig. 3.3, Sample 104, represented by the blue line, is shown to have met the standard overall, appearing above the green line marking the required standard. Figure 3.4 displays the pattern of performance across the criteria for this sample with the performance on criteria 2 (teaching), 3 (assessing) and 4 (reflecting)

shown to be of higher quality and criteria 1 (planning) and 5 (appraising) being of lesser quality. The utility of the graph is that it shows how performance on criteria 2, 3 and 4 compensates for the performance on criteria 1 and 5. Using the information in these graphs, teacher educators can identify samples to explore what quality looks like at the criterion level.

Taken together, Figs. 3.3 and 3.4 attempt to make visible the standard and the criteria as characteristics of quality in the work assessed as satisfying (and not satisfying) the expectations of graduate readiness, as determined through cross-institutional moderation processes. The figures serve to support teacher educators' understanding of the use of a common standard to arrive at reliable judgements and to inquire into practice at the level of the program and that of the preservice teacher. Cumulated data across ITE providers and programs, and over time, is the commencement of an evidence base that will allow data-informed claims to be made about the quality of ITE in Australia.

As mentioned, Fig. 3.3 shows the location of a sample relative to the standard and to other samples, and Fig. 3.4 shows patterns of performance relative to the criteria. Figure 3.5 shows the severity and leniency of an individual rater relative to the pool of scorers involved in CIM-Online. The MFRM analysis produces this estimate on the logit scale to 95% confidence limits. Each blue dot represents a rater. The six larger and lettered (A–F) orange dots are de-identified scorers from one university. The two dashed green lines represent the upper and lower confidence limits. Most raters sit between the acceptable boundaries; in the case of this hypothetical university, these are scorers B, C, D and E. However, some fall outside the boundaries showing that they are lenient or severe judges, raising questions about the reliability of their judgements. In the illustrated case in Fig. 3.5, the judgements of rater A are considered overly severe; the judgements of rater F are considered too lenient. Both raters A and F should have further training on recognising and using the established standard.

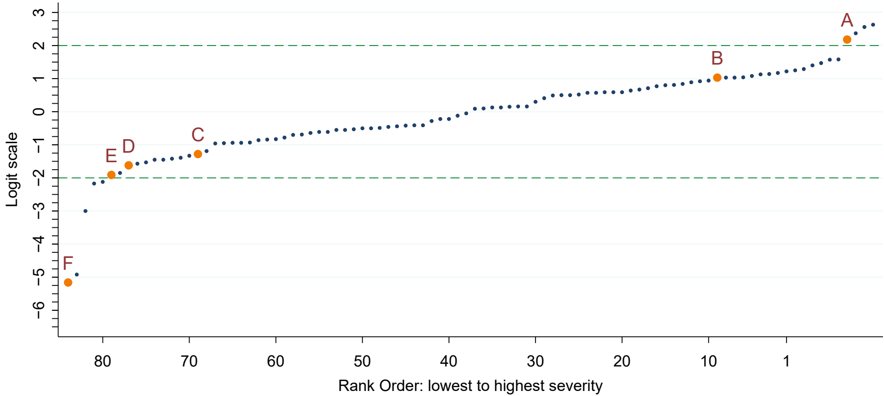

Fig. 3.5 Rater severity in GTPA scoring

3.7 What is Involved in Getting Cross-Institutional Moderation of TPAs Right?

The conceptualisation of moderation presented in this chapter has deliberately located moderation in relation to system and site validity priorities. The former includes quality assuring judgements using a common standard across teacher education providers. Site priorities include using evidence from moderation to undertake curriculum review and program renewal, attending to community needs and expectations. Cross-institutional moderation is presented as part of a program of professional work that has a central focus on assessment, evidence and data. The conceptualisation of the GTPA and moderation as connected layers of R&D, as depicted in Fig. 3.1, includes validation as an ongoing process with successive rounds of design, review, next stage design.

The importance of cross-institutional moderation is in the generation of evidence about the quality of teacher education programs and the graduates from these programs. For this reason, CIM-Online was based on principles of moderation to inform the process. These principles include processes related to

- Design of the instrument (GTPA) and its implementation in ITE programs
- Digital architecture/infrastructure and app design
- Design systems for efficient generation of stacks for scoring
- Calibration of raters including extra activities as appropriate
- Scoring protocols using CIM-Online
- Review of findings for accuracy (ground truthing)
- Design of reports and data visualisation
- Report meetings and associated dialogue: application of the standard and application of the data for review and renewal.

3.8 Conclusion

The development and implementation of CIM-Online are in its sixth year at the time of writing. It has involved considerable investment of human and material resources from a multidisciplinary team. The work has ranged across the development of research-informed moderation protocols and practices and the development of digital architecture and systems thinking including for data storage. The conceptualisation and design of the GTPA apps for collecting data have also been essential as well as the expertise of specialists in data security, confidentiality and privacy. Data analysts have been involved from the beginning in critical decisions about methodological choices especially as they impact judgement dependability.

At this point, we can reflect and look back to how three central propositions formed the basis of our work on cross-institutional moderation. First, professional judgement and CIM-Online are both foundational to the GTPA. Taken together, they enable educators to give an account of the quality of their programs, and in so doing,

professionalise teacher education, improving its status from what Hattie refers to elsewhere in this book as a cottage industry (see Hattie's Commentary in Part 3). Second, CIM-Online has potential to build collaborative professionalism through collegial engagement with, and rigorous analysis of, data showing the application of a common or established standard within and across participating universities. Third, CIM-Online enables a closing of the assessment loop between assessment for summative and formative purposes, with GTPA data used for curriculum review and program renewal.

So, what have we learnt? Moderation online achieves the dual purposes of comparability and for building the dependability of teacher educator judgements, stretching the boundaries of internal moderation practices. In the process of implementing the GTPA across a large group of universities, it was evident that significant culture change in ITE was underway. We saw how teacher educators from universities across the country came together to take professional responsibility and accountability for establishing and maintaining the standard of teacher education. Together we recognised that establishment of a common standard could only be realised through the pooling of professional evaluative expertise and that this required the design and application of digital infrastructure. In particular, the expertise of teacher educators was harnessed through CIM-Online of assessment performances.

Against the backdrop, we propose that the processes developed in the GTPA are at the core of efforts to improve teacher education, not simply in this TPA, but in TPAs more generally. Continuing the processes ensures consistent scoring against the standard as well as generating data showing the application of the common standard and patterns of performance across the teaching practices. CIM-Online goes beyond traditional approaches of face-to-face moderation to take up the affordances of new technologies in a field where cross-institutional moderation has not been routinely practised. Finally, we suggest that the conceptualisation of CIM-Online, the accompanying resources (see Fig. 3.2) and the approach to calibration training are potentially applicable in other professions seeking to apply a common standard of graduate readiness for workforce entry.

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Chapter 4
Teacher Education Reform and Preservice Teacher Assessment: Representations of Teachers and Initial Teacher Education in News Media

Elizabeth Heck

Abstract This chapter explores how news media represent teacher education reform, the emergence of teaching performance assessments (TPAs), and related preservice teacher assessment in Australia. The analysis draws on a dataset of 111 news articles published since the release of the Teacher Education Ministerial Advisory Group (TEMAG) report, *Action now: Classroom ready teachers* in Australia in 2014. The dataset was analysed using the Analytical Framework for Media Discourse. The discussion highlights some of the implications and the role of the media in portraying teaching, teacher quality, and standards. It addresses how this portrayal impacts teachers' professional identity and public perceptions of the profession more broadly.

4.1 Introduction and Background

In 2014, the Teacher Education Ministerial Advisory Group (TEMAG) report, *Action now: Classroom ready teachers,* was released in Australia (Craven et al., 2014). Key directions in the report included an overhaul of the national accreditation system for teachers, more rigorous program accreditation processes, increased transparency of selection for course entry, and further collaboration between higher education providers, school systems, and schools. In particular, it was recommended that graduate teachers show evidence of classroom readiness and that preservice teachers are pre-registered as recognised members of the teaching profession from the beginning of their initial teacher education (ITE) program (Craven et al., 2014). The TEMAG report provided the catalyst for the introduction of a teaching performance assessment (TPA) in Australia, as discussed in Chaps. 1 and 2.

The expectation is that a TPA acts as a culminating summative assessment that sets a clear standard of graduate capabilities and that this, in turn, leads to high graduate quality and classroom readiness. In Australia, a TPA must adhere to the

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requirements of Program Standard 1.2 in the *Accreditation of initial teacher education programs: Standards and Procedures*, namely for “pre-service teachers to have successfully completed a final-year teaching performance assessment prior to graduation shown to be a reflection of classroom teaching practice including the elements of planning, teaching, assessing and reflecting” (Australian Institute for Teaching and School Leadership [AITSL], 2015, revised 2018, 2019, p. 12). The program standards are designed to work in conjunction with the Australian Professional Standards for Teachers (APST; AITSL, 2011, revised 2018). Together they have potential to “provide a strong national foundation and common language for the teaching profession in Australia” and “the benchmarks used in national approaches to accreditation of teacher education programs” (Craven et al., 2014, p. 3).

A mandatory inclusion in ITE programs is a TPA that, along with other evidence sources, provides information for universities to demonstrate impact of programs on graduate teacher preparedness for the profession. A specific example of a TPA is that of the Graduate Teacher Performance Assessment (GTPA®),[1] developed as part of longitudinal research beginning 2016 in the Institute for Learning Sciences and Teacher Education (ILSTE), Australian Catholic University (ACU). The GTPA was endorsed by AITSL for national implementation in 2018 and is implemented by a collective of universities in six of the eight states and territories across Australia. It is one of two mandated assessments that a preservice teacher must undertake before they graduate. The other is the Literacy and Numeracy Test for Initial Teacher Education (LANTITE) which was introduced in 2016. It is an online test, developed, and implemented by the Australian Council for Educational Research (ACER), aimed at assessing teaching candidates’ personal (as distinct from professional) literacy and numeracy skills prior to graduating, to gauge competence in literacy and numeracy basics (see also Barnes & Cross, 2018).

A contributing factor in moves to reform teacher education is the declining performance of Australian school systems in international large-scale assessments such as the Programme for International Student Assessment (PISA), Trends in International Mathematics and Science Study (TIMSS), and Progress in International Reading Literacy Study (PIRLS) and in national standardised assessment in Australia such as the National Assessment Program—Literacy and Numeracy (NAPLAN) (Thomson et al., 2019). Compounding the concerns resulting from the reported declining performance is the unintended consequences of leader boards and commentary, often published by the media, that report and rank school performance in national assessment (Cumming et al., 2018; Louden, 2019; McGaw et al., 2020). News media reporting of large-scale or standardised testing is widely reported to have a significant impact on public perceptions of international, national, and state education systems and the role teachers play (Klenowski & Wyatt-Smith, 2012; Shine & O’Donaghue, 2013).

[1] Acknowledgment: The Graduate Teacher Performance Assessment (GTPA®) was created by the Institute for Learning Sciences and Teacher Education, Australian Catholic University, and has been implemented in a Collective of Higher Education Institutions in Australia (https://www.graduatetpa.com).

In addition to the impact of large-scale assessments are concerns of global teacher shortages, recruitment, and retention (Alexander et al., 2020; Heffernan et al., 2019; Wyatt-Smith et al., 2017). Alexander et al. (2020) noted that complexities in recruitment and retention can include an ageing workforce, employment practices, population sparsity, and a decline in applicants. Yet, as Goodwin (2020) summarised, there is also a problematic characterisation and public perception of teaching as an "almost profession" where teachers are viewed as low status and that the work itself is seen as technically simple and therefore attracts less capable candidates (p. 3). While the starting salary for graduate teachers is competitive relative to professions which require similar levels of qualifications, it is widely recognised that there is a ceiling on renumeration and career advancement for those teachers who wish to stay in the classroom. This observation could partially explain why teaching as a profession is less attractive to males who are seeking promotion and career advancement (Alexander et al., 2020; Mills et al., 2004; Wyatt-Smith et al., 2017).

In many countries, there are growing concerns regarding the quality of candidates entering teaching. In Australia, TEMAG reported that there is a

> *Need to lift public confidence in initial teacher education* – Australians are not confident that all entrants to initial teacher education are the best fit for teaching. This includes the balance of academic skills and personal characteristics needed to be suitable for teaching. (Craven et al., 2014, p. xi).

In their most intense forms, concerns in the media can be traced to accounts of allegedly low admission scores to undergraduate teacher education courses. This admission score is known as the Australian Tertiary Admissions Rank (ATAR) and is a rank that ranges from 0 to 99.95 and designates a student's position relative to their year group cohort. However, a report for the Mitchell Institute by Pilcher and Torii (2018) noted that in 2017 "60% of undergraduate university offers were made on a basis other than ATAR" (p. v). In the context of ITE, AITSL reported that, "at the undergraduate level, only 36% of commencing initial teacher education students entered straight from secondary education in 2016" (Aspland, 2019, para. 6; see also AITSL, 2019, p. xiv). Media reporting of low ATAR course entry scores can be "misleading" as it does not consider that fewer students are entering ITE courses directly from school (Aspland, 2019, para. 12). In addition, these media reports often fail to take into consideration the further assessments (such as LANTITE and a TPA) that teacher candidates undertake prior to graduation, where they are expected to meet "robust national teacher professional standards" (Aspland, 2019, para. 11). In the evolving landscape of initial teacher education, there are significant variables with the role of ATAR, course entry and the quality of graduate teachers, and their relationship with public perceptions and confidence in the profession.

In the context of these issues, and with a focus primarily on news print media, this chapter examines the question: *How are teachers and the teaching profession represented through public commentary in Australian print media texts against a background of teacher education reform and the introduction of TPAs and LANTITE*?

4.2 Representation, Identity, and the Media

Intertwined with this background of tertiary admissions, preservice teacher assessment, and graduate quality, two significant concepts are at play. These are *representation* and *identity* of teachers and the teaching profession in the media (see Townsend & Ryan, 2012). Media representation about teacher and teaching quality is a global phenomenon (Alhamdan et al., 2014; Hansen, 2009). Alhamdan et al. (2014) summarised this phenomenon and the 'blame' placed on teachers:

> Research suggests that newspapers all over the world publish articles about teachers that are "frequently unfair" and "partially substantiated" (Pettigrew & MacLure, 1997, p. 392). They often blame teachers for poor student performance and poor educational outcomes (Ball, 2008) and present a negative image of teachers (Keogh & Garrick, 2011). (p. 491)

Alhamdan et al. (2014) broadly explored teacher representation in news items and categorised these into four thematic representations: (1) the caring practitioner, (2) the transparent (un) professional (in line with 'standards' and quality), (3) moral and social role models, and (4) transformative intellectuals. The authors argued that "the disparate emphases on teachers' moral, social and political roles may be understood from a range of prevailing socio-economic, political, educational and cultural factors in the respective countries" (p. 501). In Finland, for example, teachers are internationally recognised with "great public respect and appreciation" (Sahlberg, 2011, p. 24). Of note is how Finland emerged as a top performer in PISA in the early 2000s and attracted significant international attention from education researchers, policymakers, and journalists interested in discovering the country's secret for success (Takayama et al., 2013), though Finland's performance profile has changed since that time.

Within media representation is the concept of *self-representation* as it relates to bottom-up participatory and social media platforms (Mackay & Heck, 2013, 2015; Thumim, 2012). A social media study by Pendergast et al. (2019) found that many stakeholders in public discussions, including teachers and school leaders, were "rendered voiceless by their employers" or did not have the time and energy to participate online (p. 47). As a result, members of the teaching profession have to rely on a small number of networked professionals to represent them. A question posed by Pendergast et al. (2019) concerns how the profession can overcome what is referred to as "forced passivity" (p. 47), similarly noted by Blackmore and Thorpe (2003). These studies suggest that teachers are largely voiceless in the media when it comes to issues that represent them and the profession. Other Australian researchers suggest that teachers and teacher educators need to take an active role in discussing teacher education in the media and in challenging how federal policies are framed (Barnes & Cross, 2020).

Associated with representation is identity. Identity "has particular resonance to media and communications, especially as it raises important questions about media power" (Georgiou, 2017, para. 1). Notably, there are implications of media representations of teachers and how these play a part in the construction of professional identity (Blackmore & Thorpe, 2003; Kirby, 2016). Furthermore, teachers' identity

is multifaceted and typically associated with professional identity (Alhamdan et al., 2014; Blackmore & Thorpe, 2003; Kirby, 2016) and assessment identity (Adie, 2013; Looney et al., 2018). Aligning with this, an earlier Australian study by Blackmore and Thorpe (2003) found, at the time of media debate over literacy standards, that teachers',

> Sense of professional identity and morale were shaped by such discursive positioning, being put continually on the defensive. They felt that vital aspects of their work such as welfare, pastoral care, and social justice issues were being squeezed out by the pressures to perform outwardly. (pp. 589–590)

Such media representation can also influence morale (Blackmore & Thorpe, 2003). Yet there are mixed feelings as to the media and general public's impact on teachers' perception of their identity. An Australian report by Heffernan et al. (2019) into the public perception of teachers noted, from some participants in their research, that the media had an impact on teachers' perceptions of themselves and contributed to teachers feeling underappreciated and disrespected in the community. However, on the other side of this, a key finding in this research noted that the "public feels that teachers are respected and trusted", but "this is not consistently transferring to teachers feeling appreciated for the work that they do" (Heffernan et al., 2019, p. 4). Such perceptions were similarly noted by Alexander et al. (2020) and pointed to the "influence of public, political and media messaging on the interpersonal relationships that influence individual's career choices" (p. 8). Wilkinson and MacDonald (2020)—Australian education scholars—also noted that the costs of negative media had adverse impacts on teachers, their work, and their ability to commit long term to the profession: "(m)edia discourses form a crucial part of a broader discursive framework of how teaching is perceived and enacted" (para. 21). These observations point to how the media contributes to public perceptions of teachers and the teaching profession. It is at times of policy changes, reform, and significant events that this is amplified (Wilkinson & MacDonald, 2020). From this, it can be observed that there are mixed results when it comes to public perceptions of teachers, and how teachers in turn perceive those public perceptions, particularly as it pertains to the media, as discussed below.

4.3 Methodology

An analysis of media articles was undertaken to investigate the research question: *How are teachers and the teaching profession represented through public commentary in Australian print media texts against a background of teacher education reform and the introduction of TPAs and LANTITE*?

A search strategy with key terms including 'GTPA and TPA', 'LANTITE', and 'ATAR' (and 'tertiary entrance') was employed using the primary database of the Australia New Zealand Newsstream through ProQuest, with additional material sourced via Google. The selected time frame for news items was 2014 to January

2021, in line with the timing of the TEMAG report, and associated milestones including the introduction of LANTITE, TPAs, and related commentary regarding tertiary entrance for ITE courses. This initial compilation categorised the articles as relating to (1) ATAR, (2) GTPA and TPA, (3) LANTITE, and (4) teacher reform. These were significant topics covered in news items since the release of the TEMAG report and the emergence of debates about tertiary entrance for those wishing to undertake initial teacher education.

For the analysis, articles were retrieved and downloaded to NVivo 12 software and catalogued in relation to the four identified categories. The news items for analysis included 111 articles in total over the four categories (Teacher reform: 56 items, ATAR: 24 items, LANTITE: 21 items, and GTPA and TPA: 10 items).

A 'word search frequency' check for most prominent and key words used in the articles was followed by first pass node coding. The identified keywords were as follows:

Standards. In the context of this analysis, 'standards' was used as the broad term (inclusive of 'standard' and 'standards'), as it relates to public perceptions of 'quality', rather than the specific 'professional standards' (e.g. as in AITSL/APST usage). The intent was to observe the general usage around standard/s in media articles as it pertained to *standard of teaching quality* and *academic entry standards* of admission to teaching degrees and ITE programs. Contextual framing included:

1. Standards—academic standards for university/ITE entry.
2. Standards—test-based academic standards of classrooms (e.g. NAPLAN, reading, and literacy).
3. Standards—accreditation/professional standards (e.g. AITSL/APST).

Standard. Although 'standard' is inclusive in the 'standards' coding above, a child node was created to further frame for context. Examples here include 'standard' in usage as mentioned above and contextually used as 'standard pay'/remuneration in some instances, that is, not relating to teacher or teaching quality.

Quality. A contextual focus on quality included:

1. Teacher and teaching quality.
2. Teacher education/ITE quality.
3. Quality as pertaining to standards (e.g. accreditation).

Benchmark/ing. This term aligns with the TEMAG report and is related to terminology around quality indicators. An example is the way the professional standards provide a benchmark for the accreditation of teacher education programs. Furthermore, benchmarking relates to a key finding in the TEMAG report that, "consistent and transparent graduate assessment against an agreed benchmark is a key feature of profession entry requirements both internationally and in comparable professions in Australia" (Craven et al., 2014, p. 32). What is of interest in this analysis is how benchmarking is understood, used, and reported across the media texts.

Performance Assessment. This term is noted in general reference to the place of TPAs and the emergence of the GTPA, in and across the news articles.

4.3.1 Analytical Framework for Media Discourse

Contributing to this keyword analysis and drawing on Fairclough's (1995) critical discourse analysis (CDA) is the Analytical Framework for Media Discourse proposed by Carvalho (2008) that informs the analysis of media texts. The Analytical Framework for Media Discourse includes textual analysis, comprising:

1. Layout and structural organisation of media texts, such as news articles. Yet, 'layout and structural organisation' was not completely applicable, given that the articles were mostly in the format acquired from the ProQuest database. Word count and length of the articles were taken into consideration.
2. Objects—alignment with topics or themes or the events under consideration.
3. Actors—the term is taken to include the dominant voices or representations.
4. Language, grammar, and rhetoric—the identification of key concepts, vocabulary, and writing style.
5. Discursive strategies—the forms of discursive manipulation, of reality by social actors, such as journalists.
6. Ideological standpoints—"Ideology is an overarching aspect of the text. It is embedded in the selection and representation of objects and actors, and in the language and discursive strategies employed in a text" (Carvalho, 2008, p. 170), yet this is not always explicit.

In Carvalho's (2008) framework, contextually the news article data and categorisation align with (1) *Comparative–synchronic analysis*—that is the "various representations of an issue at the time of writing" (p. 171) and 2) *Historical–diachronic analysis*—that takes place on two levels and includes an analysis of social matters in their wider social, political and economic contexts. This is followed by the production and evolution of "media(ted) discourses" on a specific social issue over time (Carvalho, 2008, p. 173). The news article data and categorisation align with both the comparative–synchronic and the historical–diachronic analysis of the political and social contexts of teacher education reform, and how the media historically constructs, produces, and represents these issues and the actors within them.

4.4 Findings

4.4.1 Voices and Representation

Across the four identified subsets of data—(1) ATAR, (2) GTPA and TPA, (3) LANTITE, and (4) teacher reform—there was a mix of prominent actors and voices. Prominent voices across these categories included those from federal Education Ministers from 2014–2020, including Simon Birmingham, Christopher Pyne, and Dan Tehan, as well as state Education Ministers. Other political representatives included opposition party education spokespersons, including the Australian Labor

Party's, Tanya Pilbersek. In some instances, articles focused on teacher reform were written by politicians (e.g. federal member for Higgins and former medical practitioner Dr Katie Allen, in 2019, wrote "'Cruisy' education lets down high achievers"). This was largely in regard to teacher education reform, ATAR and LANTITE. Examples of politicians' comments can be found further in the following section on 'Language, grammar and rhetoric'.

University deans, professors, and scholars in education were well-represented across all four categories of news items. These voices often rose to the defence of concerns over misconceptions of ATAR entry, and the significance of preservice teacher assessment, with reference to TPAs. Other examples from professors and education scholars included responses about the complexities of teacher recruitment and retention and the need for workforce planning, such as "The picture of shortages is a complex tapestry of geography, discipline area and phases of schooling" (Wyatt-Smith, quoted in Patty, 2021, para. 22–23).

Teacher unions and professional bodies had some representation and showed support of developments in teacher education reform, including the role of TPAs, for example, Australian Education Union president Correna Haythorpe, who "supported the student teacher classroom performance tests" (quoted in Argoon, 2019b, para. 7). Further examples included the support of, and valuing the work of, recruiting and retaining teachers in the profession; for example, New South Wales Teachers Federation president Angelo Gavrielatos described teaching as "one of the noblest of all professions" (Patty, 2021, para. 27).

As noted by Pendergast et al. (2019), members of the teaching profession have to depend on a small number of networked professionals to represent them. Across the wider dataset, a few articles were written by former and practicing teachers, and education consultants engaged in an editorial opinion role (e.g. Christopher Bantick, teacher at Melbourne Boys Anglican Grammar School for *The Australian*, and Blaise Joseph, former teacher and research fellow in Education, for *The Courier Mail*). In the category dedicated to teacher reform, a beginning teacher's voice positively featured as the centrepiece of an article with a focus on teacher shortages, recruitment, and workforce planning (Patty, 2021). Across the ten news items covering the GTPA and TPA, there is an emerging presence of teacher voices, particularly those of preservice teachers interviewed about their experiences of the GTPA. An example of this is a front-page article that quotes a preservice teacher as saying "The prac (teaching practice) is probably the most important part I found because it gave you the hands-on experience that you needed,' Ms Scott said" (in Balogh, 2017a, para. 9). Here, the preservice teacher was referring to how the GTPA focussed her practice on key aspects of the teaching, learning, and assessing cycle during her school-based placement.

4.4.2 *Language, Grammar, and Rhetoric*

Strong and provocative language was a feature of many news items, with particular reference to ATAR focused news items. Some articles were quite short at approximately 250 words, with most being between 500–800 words. Some articles note that teaching candidates were being accepted into ITE courses, "despite *shocking* [emphasis added] academic results of their own" (Argoon, 2018, para. 1.). Further examples include "A *shocking* [emphasis added] report has revealed students with near-zero ATAR scores have been offered teaching degrees by universities across the country" (Khalil, 2018, para. 1.). Such language illustrates that the reporting of the complexities of ATAR and admissions into ITE courses can be provocative, and reporting was often focused on politicians' comments. For example, Argoon (2018) notes

> The worrying data, obtained by the Sunday Herald Sun, last night prompted Victorian Education Minister James Merlino to order an immediate investigation. "I will not stand for universities who are attempting to undercut or bypass our reforms and minimum ATAR standards," he said. (para. 3)

In an article by Gregory (2019), quoting shadow minister for education Tanya Plibersek, Gregory writes

> Ms Plibersek said the ATAR for teaching was getting "lower and lower every year". "I'm saying to universities, work together to ensure that you are increasing the cut-off marks... We cannot afford to dumb down teaching degrees, to enrol people who will never be competent teachers". (para. 3)

There were exceptions, and education experts (usually university representatives) provided some defence. Bantick (2015), one of the few teachers represented in the news texts, stated that

> Why teachers fail in the classroom is because they are not, bluntly, bright enough to cope with academic subjects and able students. To this end, the universities have not failed in their preparation of teachers, but they have failed spectacularly in permitting teachers to be trained with substandard ATAR scores. (Bantick, 2015, para. 5)

The article was critical of ITE, but also noted the ongoing criticism levelled at teachers. Given that there is a small number of teachers participating across the media texts, it is important for these representatives to have a firm understanding of current ITE requirements and how they communicate this understanding to a broader audience.

Analysis of the articles pertaining to the GTPA and TPA dataset indicates a shift in language. Specifically, in a front-page article in *The Australian*, the GTPA prominently featured as a "game changer" (Balogh, 2017a, para. 2). Further language around the introduction of the GTPA included that the process of teaching performance assessment involves, "rigorously assessing classroom readiness of beginner teachers and demonstrating they can meet national graduate teacher standards set by the AITSL. If they don't pass, they don't graduate" (Balogh, 2017a, para. 4) and is a "new step up for the profession" (para. 6). "Rigour" was also featured in the headline

and in the body of the accompanying response from AITSL (Rodgers, 2017). The use of the word ‘rigour’ is significant, as it is connected to teaching performance assessment for preservice teachers to demonstrate capacity to improve student learning, with the required levels of literacy and numeracy, and to have a deep knowledge of their subject areas (Rodgers, 2017). It is also notable that AITSL had endorsed the importance of this assessment in wider news, indicating the significance of this reform initiative.

4.4.3 Headlines

News article headlines are significant and demonstrate the discursive strategies employed by journalists, editors, and media agencies in the representation of teachers and teaching in light of teacher education reform. Headlines are the hook to capture potential readers and are written with the aim of grabbing attention. This is also related to the language, grammar, and rhetoric across many of the news items. Headlines were often provocative and aligned with Alhamdan et al.’s (2014) observation of the phenomena of the ‘blame’ placed on teachers. This was commonly in reference to articles that focused on teachers’ literacy and numeracy skills. These typically featured more prominently when related to ATAR and LANTITE datasets. LANTITE headlines included “Teachers kicked out for failing maths test” (Argoon, 2019a), “A lesson in failure” (Harris, 2019), and “Weeding out would be teachers” (*The Australian*, 2020). ATAR focused headlines noted “Raise the bar for better teachers” (Lang, 2020), “Raising ATAR won’t deliver the best teachers” (Donnelly, 2019), and “Raising classroom standards by increasing ATAR cut-off” (Horn, 2020). In articles focused on teacher reform, headlines included “‘Cruisy’ education lets down high achievers” (Allen, 2019), “Push to lift teacher literacy training” (Urban, 2019), and “Teachers will benefit from reform” (*The Daily Advertiser*, 2019).

Headlines in the GTPA and TPA dataset suggest the significance of this new teaching assessment for improving graduate teacher quality. Examples included “Prove teaching skills in classroom or fail course” (Balogh, 2017a), “Teachers must show they’re a class act” (Martyn-Jones, 2018), and “Teacher test deserves fair go” (*The Courier Mail*, 2018). These headlines suggest that the authors believe there needs to be a change in thinking about graduate teacher quality, indicated by the use of the phrases ‘fair go’ and ‘class act’.

4.4.4 Keywords

As discussed briefly in the methodology, keywords were selected if they were plentiful from the initial ‘word frequency’ search on NVivo or in response to terminology used in recent education reform reports such as TEMAG, and as it pertained to the

Table 4.1 Keywords and frequency

Name	News items	References
Standards	83	255
*Standard	32	59
Quality	64	134
Benchmark	19	24
Performance assessment	17	22

emergence of TPAs in the Australian context. From 111 media sources, the frequency of contextual and common keywords is listed in Table 4.1.

The most significant word around teachers, teaching, and teacher education was 'standards', and this was found across the majority of texts. This was closely followed by the word 'quality'.

4.4.4.1 Standards

As Blackmore and Thorpe (2003) note, the

> Media simultaneously creates and taps into educational discourses (popular, professional and academic) that take on particular dominant readings in specific contexts, and is in this sense critical to the popular construction of understandings about education, and the popular readings and meanings of certain key words, such as 'standards'. (p. 580)

'Standards', in relation to teaching and teacher education, was also a prevalent term found in this analysis.

A chance to 'boost' standards was noted across three articles with a focus on teacher reform and ATAR (Baker, 2019; Cook & Butt, 2019; Urban, 2019) and to 'reboot' standards (Allen, 2019) in teacher education. ATAR and tertiary entrance attracted the most negative commentary on teacher education, including the call for "Raising classroom standards by increasing ATAR cut-off" (Horn, 2020). The combination of ATAR and standards was also mentioned in the context of teacher recruitment, retention, and lack of professional prestige: "A range of stakeholders—education ministers, schooling peak bodies and research institutes among them—have contended that university entry levels (ATARs) are too low, salaries are unattractive, literacy and numeracy standards are poor, and that teaching carries little prestige" (Parker & Hawke, 2019).

Standards also featured in relation to LANTITE. One example reported that "at least two teachers have had their registrations cancelled because of new federal government rules requiring them to pass a test, aimed at lifting teacher standards" (Argoon, 2019a, para. 1). A second example reported that LANTITE was introduced "following concerns about a lowering of academic standards and a decline in school performances compared with other countries" (Ferguson, 2020a, para. 11). Words juxtaposed with standards included 'concern' and 'lowering'. In other news items on teacher reform and ITE, standards were mentioned in relation to teacher standards in

the context of standardised testing, such as NAPLAN. Further examples referred to the complexity of teaching, as a job that has "changed beyond recognition" (Baker, 2020, para. 1) and reasons why teaching degrees and standards of outcomes need improvement.

TPAs were discussed in the media texts as a solution to raise or 'lift' teacher standards and to improve education more broadly. Such examples included, "ACU [Australian Catholic University] has also developed a performance test, now used in 14 universities nationwide, which are collaborating to lift standards of teaching graduates" (Argoon, 2019b, para. 5) and "Experts predict the test will be so effective in lifting standards it will end the debate around ATAR and OP cut-offs for teaching degrees"[2] (Martyn-Jones, 2018, para. 2). There was also reference to the moderation of standards: "RMIT's [Royal Melbourne Institute of Technology] Program Manager Master of Teaching Practice (Primary & Secondary) Dr Alison Lugg said, 'Being part of a national collective of universities undertaking the GTPA was important to RMIT because it supports collaboration and cross-institutional moderation which maintains consistent standards'" (in Bowers, 2019, para. 14). The importance of cross-institutional moderation is a key component of the GTPA (see Chap. 3, this volume) and is significant in maintaining and strengthening standards across ITE.

4.4.4.2 Quality

In the 111 news texts, 64 articles were inclusive of 134 references to 'quality'. The term 'quality' was used in varying contexts, but most often aligned with criticism of teacher quality (as early career teachers), initial teacher education course entry (low and minimum ATAR requirements), graduate teacher quality, and general teaching quality (hence the need for reform). The word was typically used when referring to 'low quality' or needing to produce more 'high quality' teachers and graduates. There were also references to 'deterioration' in the quality of teacher graduates (Buckingham, 2018; Ferguson, 2020a).

In relation to ITE and ATAR, comments included the following:

> At the Labor Schools Forum late last year, a teacher who is on the employment panel at her primary school lamented how hard it was to find high-quality candidates – few qualified teachers submitted job applications that were free of spelling and grammatical errors. (Buckingham, 2018, para. 10)

Further comments emphasised that some teaching courses "lag way behind in quality" (Bantick quoting Christopher Pyne, then federal education minister, 2015, para. 20). The language used and quoted in articles by politicians around teachers, teaching courses, and quality was often critical. As a counterpoint to this, an article by Donnelly (2018) noted "while there's no doubt teachers need to meet minimal literacy and numeracy requirements, the debate about teacher quality, especially as

[2] OP refers to 'Overall Position', previously used in Queensland, Australia, for tertiary entrance admissions between 1992 and 2019. A student's OP was a score between 1 and 25 (1 = highest score or rank, 25 = lowest).

measured by the Australian Tertiary Admission Rank, is simplistic and guilty of ignoring more difficult factors" (para. 1). Donnelly further noted in his commentary that in the instance of such debate around ATAR and quality teachers, politicians are wrong to argue its primary significance regarding the quality of new teachers. In Donnelly's article, ATAR (as a noted point of quality for ITE candidate entrance and minimum standards) was articulated as misunderstood by politicians and how it is used more for electoral spin.

When articles were seemingly positive, they were positioned with provocative headlines, for example, "Australia's report card: Must try harder" (Adams, 2019), and within the article, "Is Australia's school system high quality? Well, yes, and no. Yes, Australian schools are doing lots of things right and are typically well regarded internationally" (Adams, 2019, para. 1). Yet, despite the content of the article not being overtly negative, comparisons were drawn with the Finnish education system, a popular point of international comparison. In the news items in this analysis, comparisons to Finland in relation to Australia's education quality were drawn across eight articles (Allen, 2019; Balogh, 2017c; Clark, 2017; Donnelly, 2018, 2019; Jarvis, 2019; Lang, 2020; Mueller, 2019). However, the two articles by Donnelly note that there is some misunderstanding with regard to Finland as an education system to aspire to, commenting, "the argument that only academically gifted students enter teaching in high-performing education systems such as those in Finland and South Korea is also mistaken" (2018, para. 3). In this instance, Donnelly emphasises how Finland's profile as an exemplary nation in education has its own variables in selecting and assessing teacher candidates, which are not commonly reported in the media.

4.4.4.3 Performance Assessment

The specific keywords 'performance assessment' attracted 22 direct references across 17 sources from the broader teacher reform category and the specific GTPA and TPA category. In the data subset of ten articles categorised to GTPA and TPA commentary, reporting was generally neutral and indicated an understanding of what a TPA sets out to achieve. This included how teaching performance assessments address quality, standards, moderation across universities, and consistency across ITE and tertiary institutions. The reporting noted the significance of TPAs in the light of teacher education reform,

> As experts meet today to finetune guidelines of the new test, Claire Wyatt-Smith – director of Learning Sciences Institute Australia at Australian Catholic University which is leading one of two teaching performance assessment projects – described it as "the biggest game-changer in teacher education in this country". (Balogh, 2017a, para. 2)

The role of consistency across ITE courses and institutions was also noted in regard to the emergence of TPAs, "The Graduate Teacher Performance Assessment is aimed at finding a consistent measure across institutions as to whether university students training for teaching are fit to stand in front of a classroom" (*The Courier Mail*,

2018, para. 2). There was also reference to performance assessments and the termination of the ATAR debate, with further commentary noting, "in 2018, almost 4000 preservice teachers have the opportunity to demonstrate mastery of key teaching practices through the Graduate Teacher Performance Assessment (GTPA)" (Henebery, 2018, para. 2). In these instances, 'performance assessment' had been aligned with 'mastery' and a 'consistent measure'. A further reference was to the GTPA "producing a culture change in teacher education" (Wyatt-Smith, quoted in Argoon, 2019b, para. 5). While this commentary has only recently begun to emerge in relation to teaching performance assessments, it indicates a positive shift in reporting how graduate teachers are comprehensively and authentically assessed prior to entering their own classrooms.

4.4.4.4 Benchmark/ing

Examples of the term 'benchmark' were used in the context of the other common keywords such as 'standards'. Examples include "we should demand higher standards from teacher education programs. This means raising the benchmark required to get into teaching and ensuring that essential, evidence-based content is covered rigorously in the university degrees" (Joseph, 2019, para. 11) and, in relation to the quality of education systems, "Australia is a long way from international benchmark standards" (Wilson, 2020, para. 3). In the context of LANTITE, "The Australian revealed on Monday new results from the 2019 Literacy and Numeracy Test for Initial Teacher Education (LANTITE) show 9.3% of students failed the numeracy benchmark and 8.3% failed in literacy" (Ferguson, 2020b, para. 2). Of interest in this last example with LANTITE is how the article is framed around the 'failing' of LANTITE rather than reporting the pass rate.

Further examples of benchmarking pointed to TPAs, and that "beginning teachers must receive the ongoing mentoring support and professional learning to allow them to be the best they can be. The Australian Catholic University's vice-chancellor, Greg Craven, said the graduate assessment project was a 'consistent assessment benchmark'" (Balogh, 2017b, para. 7). The editorial in the same issue noted "Teaching education leaders from 13 universities are meeting this week to agree on nationwide benchmarks" for those universities participating in the GTPA Collective (*The Australian*, 2017, para. 3). These latter examples of benchmarking in the contexts of TPAs provide more positive reporting.

4.5 Conclusion

As Pettigrew and MacLure (1997) comment, "the press plays an active part in the construction of educational issues for its various readerships. Newspapers do not just write about education, they also represent to their readers what education is about" (p. 392). The same can be said when this includes ITE, teaching and teachers, and

how they and the profession are represented in media texts. The findings reported in this chapter illustrate how news media commentary can be provocative, particularly as it pertains to the need for ITE reform. In the instance of ATAR and tertiary entrance standards, news articles were often simplified and reductive in nature, avoiding the complexities of teacher education admission.

Politicians were often the most prominent voices, followed by education deans and scholars. There was some representation of teachers' voices. This aligns with the findings noted by Pendergast et al. (2019) that members of the teaching profession must rely on a small number of networked professionals to contribute on their behalf. Consequently, as Barnes and Cross (2020) note, teachers and teacher educators need to take a more active role in discussing teacher education in the media and challenge how federal policies are framed. In this instance, the GTPA and TPA news articles indicate an opportunity for the inclusion of beginning and preservice teachers' voices in interviews across the applicable news items. Thus, how can teachers' representation and self-representation be more diverse and further amplified in the media in light of teacher reform and related professional and policy issues?

TPAs were presented as a possible way forward to improve quality and standards, and although this chapter draws on only a small data set, the commentary around its significance looks promising. Media coverage of TPAs will need to show the research-informed outputs of the implementation on TPAs in the future, to alleviate misunderstandings about tertiary entrance and graduate teacher quality. As this chapter indicates, teaching and teacher education is multifaceted and can be simplified and misunderstood in the media, particularly as it pertains to ITE course entrance. With the recent emergence of TPAs in Australian ITE, it is hoped that there will be a greater understanding in the media and the public sphere of what makes a quality teacher, and the robust performance assessment that teachers can be expected to undertake before they enter Australian classrooms. There is also an opportunity for teachers and teacher educators to take a more active role in discussing teacher education in the media (Barnes & Cross, 2020) and to further consider how this contributes to teachers' professional identities, impacts on their own perceptions of public commentary, and representation in the media more broadly.

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Part II
Giving an Account of Teaching Performance Assessments In situ

Chapter 5
Opportunities and Tensions in the Experiences of Collaborative Professionalism During the Enactment of the GTPA

Tanya Doyle, Neus Snowy Evans, and Peta Salter

Abstract Through discursive analysis of narratives of practice, this study examines the tensions and opportunities that arise for teacher educators as a result of implementing a teaching performance assessment in an existing program of study. The introduction of the Graduate Teacher Performance Assessment (GTPA) and the requirements to ensure assessment fidelity disrupted our thinking, programmatic, curricular, and organisational structures. Drawing on the notion of collaborative professionalism, we analyse our implementation experiences and reflect on our professional learning in relation to the sites of practice (the university and partner schools) for our work and the risks of implementation. Moreover, we draw on nuanced notions of accountability to illuminate how we have reconceptualised and reimagined our work as teacher educators. Simultaneously, we assert our capacity as teacher educators to shape and steer decision-making in initial teacher education (ITE) in ways that respond to the needs of the communities our graduate teachers serve.

5.1 Introduction

The report by the Teacher Education Ministerial Advisory Group (TEMAG) for the Australian Government entitled *Action now: Classroom ready teachers* (Craven et al., 2014) called for reform in initial teacher education (ITE) in Australia. One key finding of this report concerned "poor practice" across a number of programs that were "not equipping graduates with the content knowledge, evidence-based teaching

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strategies and skills they need to respond to different student learning needs" (p. viii). In response to the report and the 38 recommendations made by the authors, the Australian Institute for Teaching and School Leadership (AITSL) revised its 2011 standards for program accreditation in 2015. The new program accreditation standards (AITSL, 2015; revised 2018, 2019) made a teaching performance assessment (TPA) a mandatory requirement in the accreditation of ITE programs delivered by universities throughout Australia.

Of particular relevance are the Professional Standards (AITSL, 2011; revised 2018, 2019) and Program Standard 1.2 which highlights the essential contribution of a TPA in the design of the teacher education program: "Program design and assessment processes require pre-service teachers to have successfully completed a final year teaching performance assessment prior to graduation" (AITSL, 2015, p. 12). Moreover, Program Standard 6 requires the university to report aggregated TPA student performance data as a means of demonstrating the impact of the teacher education program on preservice teachers' progression into the workforce and on classroom students' learning. Additionally, aggregated TPA data must be considered by the university for program evaluation and improvement purposes. As of December 2019, AITSL had endorsed three TPAs for use by universities to meet Program Standard 1.2, inclusive of The Graduate Teacher Performance Assessment (GTPA®).[1] The GTPA is a culminating "assessment of pre-service teachers' profession readiness" (Adie & Wyatt-Smith, 2020, p. 269), which must be implemented with fidelity across the GTPA Collective. The definition of fidelity used here seeks to establish conditions for assessment implementation which are "recognisably comparable across sites, and yet be responsive to diverse contexts of [university] programs and professional experience placements" (Adie & Wyatt-Smith, 2020, p. 270). Risks to the fidelity of implementation can be framed in relation to four sites of practice at the university implementing the GTPA: the teacher education academic program; the school-based professional experience program; the requirements of a TPA; and the assessment policy of the university (Adie & Wyatt-Smith, 2020, p. 282). It is important to examine our own implementation of the GTPA in relation to these sites of our practice.

It has been argued in the literature that the introduction of a TPA for the accreditation of Australian ITE programs seeks to steer the work of teacher educators in managerial directions. This reflects the influence of critiques from implementation of the edTPA in the USA, warning of teacher educators who face the risk of losing control over the outcomes of their programs (Charteris, 2019; Cochran-Smith et al., 2018). Furthermore, Bourke (2019) argues that through the ITE reform agenda underway in Australia, teacher educators are being discursively repositioned as being "out of touch, side-lined and condemned to window dressing the implementation of top-down directives from regulatory authorities" (p. 41). Some Australian teacher

[1] Acknowledgment: The Graduate Teacher Performance Assessment (GTPA®) was created by the Institute for Learning Sciences and Teacher Education, Australian Catholic University, and has been implemented in a Collective of Higher Education Institutions in Australia (https://www.graduatetpa.com).

educators have shared narratives of their practice which highlight the tensions they have experienced in implementing new regulatory requirements (Dwyer et al., 2020). White (2019) finds that “teacher educators urgently need a shared understanding [of their roles] and highlights the importance of an examination into the many hidden facets of their collective work” (p. 210).

Our experience of contributing to the development of and then enacting the GTPA—while not without challenge—could not be characterised as a process in which our ideas were side-lined or deemed irrelevant. In the work of the GTPA Collective, teacher educators have debated and tested their interpretations of impact of ITE programs by collectively establishing forms of accountability that matter to the collective of teacher educators who were part of the collaboration. How we worked together as teacher educators, to navigate tensions and realise opportunities in response to these new policy imperatives, is the focus of this chapter as well as several of the other chapters in Part 2 of this volume. We draw on Ball’s (1994) sense of policy as “both text and actions, words and deeds, it is what is enacted as well as what is intended” (p. 10). As Rizvi and Lingard (2009) note, the implementation of policy always “encounter[s] complex organisation arrangements and already-existing practices” (p. 5). To whom teacher educators are primarily accountable in relation to the implementation of policy imperatives and the grounds upon which that accountability is established are central to determining the drivers of enacting TPA policy as a social practice with purpose. Teacher educators work as mediators of policy (Blackmore, 2010) through the enactment of their individualised and/or collective (or contested) notions of professionalism (Biesta, 2017). Our individual and collective conceptualisations and enactment of both “accountability” and “professionalism” are significant to our analysis of our practice as teacher educators working within, and for, universities as complex organisations.

Two notions of accountability are identified and applied to signify the specific form of accountability that we privilege when we use the term. These include democratic accountability (Cochran-Smith et al., 2018) and intelligent accountability (Lillejord, 2020). The notion of democratic accountability foregrounds the idea that teachers can appraise their practice in ways that positively impact on learning in the communities they serve. As teacher educators (and teachers), we are ultimately accountable for student learning. Foregrounding principles of democratic accountability in the ITE program enable teacher educators to steer the professional learning of preservice teachers towards recognising “what matters most” in the context they serve. Enacting this notion of accountability requires preservice teachers to make discerning choices about the “measures” of student success they privilege and to whom those measures are communicated, in which form and for what purpose to families, to the school and to the schooling system. Lillejord’s (2020) notion of intelligent accountability shapes our enactment of “measures” of accountability by allowing us to frame it as part of an interpersonal system that is based on dialogue, participation, and co-creation. The form of accountability we hold ourselves to in relation to the impact of our teacher education programs then, in turn, shapes the perspectives of professionalism we as teacher educators can draw upon to enact policy-as-practice.

The contestation surrounding professionalism and teacher education in the Australian context is explored by Alexander et al. (2019). These authors note that managerial professionalism is often critiqued within the literature because it is viewed as "control constructed from 'above' or 'outside' the profession and imposed through performance cultures and accountability structures" (p. 11). In contrast, democratic professionalism "focuses on collegial relations, and collaborative work practices where teachers are advocates and change agents working for the common good of the communities and contexts within which they work" (p. 10). Democratic professionalism resonates with our own intended practice as teacher educators, as well as the notion of professionalism which we seek to develop within our preservice teachers. It also underpins the mindset of service to colleagues and the community that the GTPA Collective seeks to foster as teacher educators from across the nation collaborate to reach consensus on "what matters most" in the demonstration of graduate teachers' work in Australian classrooms.

Hargreaves and O'Connor's (2017) collaborative professionalism framework resonates with the notion of democratic professionalism we experienced while working together as part of the GTPA Collective. Collaborative professionalism "make[s] a strong case for communities of expertise and service where collegial solidarity permeates cultures of teaching and strives to connect student learning with big ideas of social transformation" (p. v). The utility of the framework for forming productive partnerships and for recognising our role in the collective responsibility for teacher education has been identified by Adie (2018) and described as contributing to "growing a new kind of agency in ITE" (Wyatt-Smith, 2018, p. 68). Moreover, the collaborative professionalism framework seeks to establish this cultural change in teacher education and new ways of working as normative, a position which drives change in relation to policy implementation in universities.

In the remainder of this chapter, we draw on understandings of accountability and professionalism and take up the following questions: *How do we, as teacher educators, reconcile the tensions and opportunities of implementation of the GTPA in relation to notions of democratic accountability and the requirements related with fidelity of implementation? What tensions and opportunities challenge our conceptions of professionalism while implementing the GTPA across our many sites of practice?* First, though, we explain the methodological approach to this work.

5.2 Methodological Framework

Capturing and analysing stories of practice allow us to identify both synergies and disconnects in the shared experiences of staff implementing the GTPA. The methodological framework is organised with three phases. The first is to generate collective narratives of practice. The second analyses the narratives of practice to identify and extract excerpts that align with tenets of collaborative professionalism. Finally, critical discourse analysis (CDA) is applied to narrative excerpts to locate discord or disconnect within and between the narratives of collaborative professionalism.

First, narrative inquiry (Chase, 2018) frames the methodological approach in this study. Narratives are positioned as discourse-in-practice. Moreover, personal narratives are conceptualised as "meaning-making through the shaping of experience; a way of understanding one's own or others' actions; of organising events, objects, feelings, or thoughts in relation to each other" (Chase, 2018, p. 549). In other words, narrative inquiry supports the exploration of how one story reads in relation to other stories, enabling examination of how the local conditions make each story possible. In this study, written narratives of practice were sought from the small team of teacher educators, comprised of three full-time academics and one sessional (non-tenured) staff member, who were implementing the GTPA in a regional university. The narratives of practice were written in relation to the stimulus questions: Has the GTPA shaped our work as teacher educators? In what ways? What are your feelings about this? Do you consider the enactment of the GTPA at [name of university] has been shaped by collaborative professionalism?

Second, Frank's (2012) principles of dialogical narrative analysis (DNA) recognise stories as a way people can revise their sense of self and situate that self in relation to others in a group. In analysing dialogue, the researcher must respect each participant's capacity for continuing change, and they must aim to not summarise findings. Instead, analysis should aim at "increasing people's possibilities for hearing themselves and others… to expand people's sense of responsibility… in how they might respond to what is heard… It seeks to show what is at stake in a story as a form of response" (Frank, 2012, p. 5). The conceptual framework of collaborative professionalism (Hargreaves & O'Connor, 2017) was integrated with Frank's (2012) principles of narrative analysis in order to uncover the potential ways in which the tenets of collaborative professionalism as a "new kind of agency" (Wyatt-Smith, 2018, p. 68) informed:

1. The narrative resources are available to the participants, that is, to what extent does the story of collaborative GTPA enactment make use of narrative resources already familiar to the participant?
2. The extent to which these narrative resources play a role in establishing affiliations among the participants.
3. The extent to which the identity of participants claim, reject, or experiment with elements of collaborative professionalism through the implementation of the GTPA.
4. What is at stake through the work of enacting the GTPA across the various sites of practice of teacher education at our university, from the perspective of each of the participants.

Finally, the narrative excerpts were further interrogated using CDA (Fairclough, 2010). CDA offers a method to elucidate potentially discordant aspects of discourse-in-action, including between colleagues, with respect to institutional expectations, and/or with the field, in otherwise seemingly harmonious stories.

5.3 Narratives of Practice: Implementing the GTPA

Mutual dialogue, as an element of collaborative professionalism, is focused on listening, clarification, and honest feedback. Through this line of analysis, we identified discordant perspectives between narratives shared by full-time academic staff and sessional staff. A full-time staff member described productive partnerships between colleagues during the implementation of the GTPA.

> Mutual dialogue is an extremely strong component of our practice with the GTPA. I truly value the mutual dialogue that strengthens our practice. All members of this team are respectful, open to new ideas and practices. We may not all hold the same opinions, but we accept that they are equally valid, and we are all open to diversity. For example, within the team there are different conceptions of the instrumentality of the GTPA, but we understand and accept that we don't have to share the same thinking on this aspect – that having different conceptions of the instrumentality of the GTPA will not affect student outcomes. (Academic 1)

However, this sense of collaboration through mutual dialogue does not appear to be a resource available to the sessional staff member to use in the narration of their practice:

> Unfortunately, the only aspect of collaborative professionalism I experienced was moderation of assessment. While my relationship with my course coordinator was positive, and we conversed via phone and email, as a sessional lecturer, I felt isolated. (Sessional lecturer 1)

The full-time staff member describes how teacher educators work together as a team in a manner which is respectful, open to new ideas and to new practices, and in accordance with the principles of mutual dialogue. Moreover, they note that the teaching team does not always agree on the extent to which the conceptualisation of a TPA could, or should, be aligned with notions of managerial professionalism (Alexander et al., 2019), consistent with Ball's (2003) notion of performativity and/or Biesta's (2017) view of evidence-based practice distorting the work of the democratic professional. This staff member notes that, despite this lack of agreement around the potentialities of the GTPA, this discord among staff need not negatively impact the experiences of the preservice teachers. This view speaks to the notion of fidelity described by Adie and Wyatt-Smith (2020) in that the assessment provides scope to speak to contextual considerations of significance. In other words, the assessment can be enacted through a lens of both democratic (Cochran-Smith et al., 2018) and intelligent (Lillejord, 2020) accountability and in the spirit of democratic professionalism (Alexander et al., 2019). In contrast, the sessional staff member tells of a sense of isolation from this mutual dialogue, recognised here as "collaborative professionalism", highlighting a lack of affiliation between full-time (tenured) and sessional (non-tenured and typically part-time) academic staff members. Given the high-stakes nature of the GTPA for program accreditation, this realisation requires an organisational response which has implications for future human resource planning, particularly in terms of time allocation for ongoing communication and collaboration between staff members. In addition, given the allocation of such resources, full-time academic staff members would need to allocate more time to ensure that mutual,

positive dialogue with sessional staff occurs routinely so that their contributions and feedback are recognised as integral to the successful implementation of change.

Similar patterns in experience emerge with respect to collective autonomy and responsibility, particularly in relation to the institutional response to the marking and moderation demands of the GTPA (see Chap. 3 for details of the GTPA moderation processes).

> There was a combination of individual and collective responsibility and commitment. While we worked with our individual cohorts, we shared practices and, in this way, contributed to each other's professional development. (Academic 1)

> Our internal moderation processes have strengthened our approach to implementation and our professional conversations have shaped the strategic directions of our program and subject development. (Academic 2)

> The marking component is extremely demanding and needs to be considered when developing further assessment. Each assessment element took at least ninety minutes to mark efficiently and fairly. This is an issue for both full and part-time staff. (Sessional lecturer 1)

The sessional staff member speaks to the limitations of the university's existing assessment policy as a site of practice. These limits have the potential to introduce risk to the fidelity of implementation of the assessment (Adie & Wyatt-Smith, 2020). Hearing this story prompts us to seek new organisational arrangements, at an institutional level, to legitimate and enable the sustained collaborative professionalism of teacher educators that underpin the work of the GTPA Collective. In particular, assessment policies around resource allocation for sessional staff need to be re-examined in order to reflect the required commitment from sessional staff to mark, moderate and evaluate as part of a teaching team with collective autonomy and responsibility. In other words, more organisational recognition of ways of "talking, thinking, acting and being a teacher educator" (Adie & Wyatt-Smith, 2020, p. 274), rather than simply being related to as a "casual marker" of assignments, is required. Failure to consider this implication leads to reduced opportunities for professional learning through collaboration for both full-time and sessional academic staff and poses the risk that notions of managerial professionalism, rather than democratic professionalism (Alexander et al., 2019), will dominate this aspect of the work of teacher educators. When read together, this multi-voiced narrative makes clear that what is imagined by the organisation to be possible in terms of the time and effort required in the implementation of the GTPA does not reflect the experience of enactment, which is constrained by a university assessment policy that no longer aligns with the regulatory requirements of initial teacher education.

In relation to the element of collective initiative—which is focused on trialling and enacting innovations—there was general affinity between the responses of full-time and sessional academic staff. All staff noted that implementing innovations within our program structure and curriculum had positive implications for preservice teachers and community partners:

> We have had to come up with new systems for collating and reporting the PST [preservice teacher] results on GTPA. This has required us to work with data systems staff, and professional experience unit staff to trial and refine new workflows and intersections between the

> work of academic and professional staff. We have also had to trial new forms for the QPERF [Queensland Professional Experience Reporting Framework] portfolio, such that it supports and works with the GTPA, rather than duplicating or undermining the forms of evidence school partners value in the presentation of the PST portfolio. I think we need to be more intentional in the ways we record and recount these decisions so that we demonstrate the ways we are adapting and innovating in response to regulatory requirements and feedback from our school partners. (Academic 2)

> We might individually try different types of activities and pedagogical strategies, then share and evaluate them with the other team members… We all responded to our own cohort requests and needs then shared our experiences and outcomes… We had one goal in mind, to innovate our curriculum to ensure student preparation to undertake the GTPA. (Academic 1)

However, these innovations were coupled with a tension noted within narratives from full-time academic staff at the intersection of two sites of practice, namely: the assessment policy expectations of universities and the teacher education program, including the professional experience component which is assessed using the QPERF by school-based teacher mentors. Staff noted the complexities of establishing new program requirements within existing university policies and processes. Furthermore, while the implementation of the GTPA made it possible to enact evidence-informed teacher education accreditation decisions, accessing the data and evidence required from within institutions was curiously difficult, largely due to the new demands created on the workflows and resource allocation of professional (administrative) staff within the institution. These findings highlight the need for establishing innovative ways of working with professional and technical staff to enact program-level innovations within university staffing structures. At the same time, Academic 2 recognises the need to not only record data about the range and quality of GTPA submissions, but also the need to document systematically the narrative of the innovative work. This work requires both academic and professional staff to demonstrate the university response to new regulatory expectations to clearly articulate the role that TPAs now play in ITE program accreditation (AITSL, 2015).

Again, these stories highlight how existing, complex, and, often-times, rigid university organisational structures, practices, and processes (Rizvi & Lingard, 2009) can act as barriers to collective initiative. As noted by Rowe and Skourdoumbis (2019), the Australian university sector is currently facing budget cuts alongside uneven funding and resource distribution, making the role of the university as an organisation invested in this collective initiative even more significant. Moreover, the collective initiative required to negotiate the "fit" of a TPA into an existing, already accredited teacher education program, can prove challenging, particularly when working towards developing a shared understanding of the significance that misalignment between these elements of the program can cause for accreditation purposes. As such, teacher educators' careful development of the academic program is seen as critical to steering the collective initiative at the university, so as to avoid a collision between the four key sites of practice (the ITE academic program, the school-based professional experience program, the requirements of a TPA, and the assessment policy of the university).

It is in relation to the element of collective efficacy—focused on shared belief in positive impact on teacher education programs and the learning of preservice teachers—that we have observed the most tension both within and between narratives. For example, Academic 1 evidences the role of collective efficacy in the collaborative process:

> We approached the work with an open mind and contributed to each other's developing understanding of the GTPA by bringing together individual understandings during the process involved in planning for the subject before teaching (for example, readings, subject outline, subject structure), during the teaching (for example, planning lectures and workshop content and activities), during moderation and cross-checking samples. We considered all options and continuously questioned each other with the students in mind. (Academic 1)

However, the narratives offered by the sessional staff member and Academic 3 do not evidence the same sense of collective efficacy in relation to the GTPA:

> My conversations with teaching colleagues in schools imply that the GTPA philosophy/practices directly support education systems and school practices. That is, they are interwoven with the current stress on measurement engendered by the competitive NAPLAN drive for constant improvement… The idea that using measurement – either hard or soft data – will lead to successful outcomes fails to recognise the influence of past learning, the make-up of the cohort and its influence on learning, the influence of the enthusiasm for learning and innovative teaching strategies, and care for the individual which are in fact keys to life-long learning success. In other words, knowledge of the 'craft' of a complex profession is not acknowledged. However, the benefit for preservice teachers is that they begin to learn how to articulate their practice – vital for continuing improvement. (Sessional lecturer 1)

> … the GTPA is conducive to and productive of a translation of student into a data point (student-as-object). Second, and as a consequence, the 'student-as-object' translation serves to support a wholescale denial of the emotional, cultural, political, ethical and social circumstances of teaching to the full benefit of a discourse of accountability. (Academic 3)

The above positions demonstrate a more instrumental view of the task. These positions are in contrast with those that recognise the assessment as requiring preservice teachers to demonstrate that they have considered the community, the school, and the class needs in order to determine, then justify, the pedagogical approaches needed to support the progress of their students. This latter position critically positions care for students in an appraisal of authentic practice that can lead to a "shift [in pedagogical strategies] with a deepening knowledge of their students' standpoints … this intervention to care provides opportunities for transformative pedagogical practices" (MacGill, 2016, p. 242). Further collaboration between academic and sessional staff is required in order to establish a shared understanding of the intentions of the assessment.

The criticality of establishing collective efficacy not only between academics delivering the ITE program, but also with the community partners who support, employ, and rely upon the democratic professionalism of the graduate teachers is made clear:

> Given the current policy climate, and the appetite for policy-makers to determine 'what counts' in teacher education, I see that we have two choices – we could resist participating

> which risks us becoming subjects of the determinations of policy-makers who may not hold nuanced ideas about what counts as exemplary practice in our community contexts. Or we actively engage in steering policy settings, by making it clear that we as teacher educators are capable of making informed, reliable judgements about the performance of our graduates and that we know which measures of impact are relevant in, and to, our communities. I also think it is essential that we prepare graduate teachers who can think about data and evidence with criticality so that they can make discerning judgements about what counts as a measure of student learning progression – both with, and for, those communities. If we don't take charge of these decisions, and demonstrate that we have the capacity to make research and evidence-informed, contextually responsive, decisions then I fear that aspect of our professional autonomy will be removed from the scope of our practice. (Academic 2)

Here, Academic 2 speaks to what is at stake in relation to collective efficacy and the implementation of the GTPA. Despite the tensions experienced, they advocate for the opportunities provided by participating in the project that is the GTPA as an opportunity to shape and steer decision-making about which data and evidence counts both with, and for, communities. This staff member notes that failure to participate risks loss of autonomy of teacher educators to decide what matters to the field of teacher education, with specific risks evident in relation to two sites of practice: the teacher education academic program and the requirements of a TPA. In this sense, this narrative uses the GTPA as a resource to experiment with their new identity as a teacher educator-as-advocate, who is drawing on notions of democratic professionalism to steer their approach to this new work. It is argued that it is from these tensions that the richest opportunities to shape and steer programmatic innovations arose.

Across these narratives of practice, we hear some harmonious discourse-in-action. This is more likely to occur for academics who have been able to align the new work of the GTPA with their existing storylines of practice and, through those narrative resources, take shelter in the knowledge that they were building an affiliation with the group of teacher educators in the GTPA Collective working to do the same. We also hear discord through attempts to reconcile layers of meaning-making in the account offered by the sessional staff member. On the one hand, they note that in terms of school partner perspectives, there is little at stake for the university when implementing the GTPA because the requirements of the task directly align with expected practice [of measurement] in schools and in schooling systems in the local context. So, sharing the story of enacting the GTPA will be low risk, as the storyline presents elements of practice that bring familiar narrative resources for teachers and school partners. On the other hand, the perspective that the GTPA fails to take into account the broader "craft of teaching" or that it has the potential to reduce students to data points prompted the academic team enacting the GTPA to foreground intended notions of democratic (Cochran-Smith et al., 2018) and intelligent (Lillejord, 2020) accountability in the curriculum of the academic program. The academic team sought to make clear that, while teachers need to demonstrate that they can be accountable for the learning of their students, they also need to establish the criteria for evaluating student progression in a manner which is dialogical, fair, and just. The preservice teacher must make discerning, critical choices about the "measures" of student progress they privilege alongside considerations of how, to

whom, and for what purpose teachers communicate patterns of learning progression. In other words, hearing these narratives of practice resulted in curriculum innovation that foregrounded the notions of democratic and collaborative professionalism alongside democratic and intelligent accountability in the academic program, and in doing so, managerial conceptions of professionalism as accountability were challenged.

5.4 Conclusion: (Re)imagining Opportunities for Learning

Through this narrative inquiry into our own practice, we listened to each other's stories and identified opportunities to respond to what we heard. Reimagining this new work of teacher educators as an opportunity for learning and agentic collaboration aligns with our acceptance of the notions of democratic professionalism, democratic accountability, and intelligent accountability which underpin our work.

In relation to the requirements of a TPA and the assessment policy of the university as sites of our practice, there is much work to be done to reimagine and rework organisational systems and processes to support these new regulatory demands. As teacher educators, we can respond by engaging in ongoing work to align the fidelity of the GTPA within existing accredited programs and institutional learning, teaching, and assessment policies. We can seek ways to make the evidence-informed, collaborative practice of teacher educators, enacted so as to align with course accreditation requirements, more visible to, and valued by, the university. Failure to collaborate with professional staff who oversee institutional systems and processes could result in a lack of recognition of the innovative work being undertaken by teacher educators. Current resourcing models reinforce an outdated, siloed view of the work of teacher educators. Resource reallocation will not only mitigate risks of fidelity of implementation, but also recognise that collaborative professionalism is central to the design, evaluation, and innovation of initial teacher education which, in our experience, occurs across the breadth of the ITE curriculum, not only in relation to the GTPA.

In relation to the teacher education academic program as a site of our practice, we can engage in mutual dialogue and collective inquiry, particularly with our casual and sessional academic staff, as we work to innovate our own curriculum. As a result of this work, our preservice teachers will develop the capacity to reflect on and appraise the impact of their practice with more rigour, and in ways that go beyond a performance in relation to the Australian Professional Standards for Graduate Teachers to positioning themselves as agents for change, with a sense of critical care for their students. We can challenge assumptions about the instrumentality of the GTPA through developing a shared understanding of the scope and intention of the task so that, through their appraisal of their practice, preservice teachers are metacognitive of their own developing professionalism and expertise—both routine and adaptive (Timperley et al., 2018)—and the notions of democratic, intelligent accountability.

These continuing possibilities for ongoing practice align with opportunities recognised by Bourke (2019) who states that, rather than seeing the TPA as a compliance mechanism, it could be a chance for innovation, improvement, and effective change. Bourke notes that policies are interpreted in local contexts "so teacher educators have 'wriggle room' to craft and maintain a strong sense of local identity and integrity of practice" (p. 40). This notion aligns with the principle of fidelity (Adie & Wyatt-Smith, 2020) that has underpinned the GTPA from its inception. Through our collaborative narrative inquiry into our own practices around the implementation of the GTPA, we have listened to and analysed the stories of our colleagues. Through doing so, we have identified opportunities to interrogate and refine our own initial teacher education programmatic intentions. As well, we identified the need to challenge existing (and complex) organisational structures, so as to drive universities to support the implementation of the GTPA in a manner aligned with the collaborative professionalism with which it was developed. It was through mutual dialogue and collaborative inquiry that we have been able to advance our conversations towards collective efficacy in implementing the GTPA. Acknowledging tensions and discord betwixt and between our stories allowed us to recognise opportunities to innovate and strengthen our own curriculum enactment so as to achieve our own goal of advancing the experience of education for the students and schools we prepare our preservice teachers to serve.

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Chapter 6
Collaboration in a Context of Accountability: Cultural Change in Teacher Educator Practice Across University Boundaries

Alison Lugg, Catherine Lang, Jacolyn Weller, and Nicola Carr

Abstract In this chapter, we consider the impact of implementing the Graduate Teacher Performance Assessment (GTPA) on the work of teacher educators. The GTPA was developed as a reliable assessment of preservice teachers' readiness to teach in response to a regulatory quality agenda in initial teacher education (ITE) in Australia. A unique characteristic of the GTPA instrument is the collective process of standard setting and moderation across a large number of institutions and across jurisdictions. Our study investigated the experiences of four teacher educators (the authors), involved in the development and implementation of the GTPA at two universities in Victoria, Australia. A collaborative autoethnographic methodology was used to explore the impacts of the GTPA on our professional learning and on the development of our ITE programs. Edwards' concepts of *relational agency* and *relational expertise* provided a framework for data interpretation. Our key finding is that involvement with the GTPA has resulted in a stronger collaborative professional environment and an openness to sharing expertise among teacher educators and program leaders within collective members. As teacher educators, we have enhanced our professional growth and demonstrated how collaborative work enables more robust practices in initial teacher education.

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6.1 Initial Teacher Education in the Australian Context

Initial teacher education (ITE) in Australia is under a constant political gaze for review and reform. Teacher education programs are viewed as "low hanging fruit" when new governments, influenced by three-year terms, change education policy believing they can make "quick wins or short-term fixes" (Ling, 2017, p. 561). This ongoing review and reform of ITE in Australia is often rationalised in terms of a need to improve the *quality* of teachers and of teacher education. Researchers such as Gore (2015) and Churchward and Willis (2019), however, have argued that the emphasis should be on improving *teaching* quality rather than *teacher* quality, asserting that the latter emphasises individual performance and standardised procedures, distracting attention from the complex, diverse practices that underpin quality teaching. Like Loughran and Menter (2019), they cautioned that prevalent market-driven discourses such as *classroom readiness, standards,* and *effectiveness*, risk validation of a narrow set of performative practices that may limit teachers' capacities to "establish and maintain their professional worth" (p. 259). In this contested educational arena, a federal government response to the review of ITE by the Teacher Education Ministerial Advisory Group (TEMAG) gave national oversight of ITE to the Australian Institute for Teaching and School Leadership (AITSL) to progress the TEMAG recommendations across Australia's states and territories (Australian Government, 2015). AITSL's remit included setting national standards for ITE programs and graduates and establishing a "rigorous assessment of classroom readiness" (Craven et al., 2014, p. 33). This policy included requirements that graduates from ITE programs pass standardised literacy and numeracy tests (LANTITE), and a capstone assessment task that provides evidence of readiness to teach. The Graduate Teacher Performance Assessment (GTPA®)[1] is a product of these changes.

6.1.1 Assessing Readiness to Teach

Determining readiness to teach is problematic. Gore (2015) acknowledged that teacher readiness and impact on student learning are difficult to define and assess within "reasonable levels of validity, reliability and fairness recognising both the desire for scientific integrity and the messy reality of the social worlds of schooling and teacher preparation" (p. 1). Similarly, Nuttall et al. (2017) questioned whether impact on learning can be readily tested in a multi-layered and complex profession, where linear cause and effect cannot be readily observed. Gore (2015) recognised that a national approach to assessment of graduate readiness to teach raises questions around the extent to which common understandings of quality teaching are held by teacher educators in diverse educational settings, especially when the Australian

[1] Acknowledgment: The Graduate Teacher Performance Assessment (GTPA®) was created by the Institute for Learning Sciences and Teacher Education, Australian Catholic University and has been implemented in a Collective of Higher Education Institutions in Australia (www.graduatetpa.com).

Professional Standards for Teachers (APST) do not provide a clear position on this issue (see AITSL, 2011; revised 2018). These questions draw attention to the capabilities of, and conditions for, teacher educators to prepare and assess graduates for teaching diverse learners in specific contexts against national standards that redefine teaching as a profession (Singh et al., 2019). The issues signal a need for robust, collaborative work among ITE providers to build shared understandings and robust assessment of readiness to teach.

The TEMAG recommendation for an assessment of ITE graduates' classroom readiness focused attention on differing interpretations of the concept of classroom readiness, debates about what constitutes evidence of readiness, and whether it is in fact an achievable outcome of ITE programs (Alexander, 2018). Such issues were addressed by Wyatt-Smith in a GTPA symposium in 2017 where she proposed the term "profession readiness". Charteris and Dargusch (2018) took up this concept, arguing it is more appropriate than an instrumental notion of classroom readiness. Profession readiness accounts for the range of complex skills and roles required of teachers, enabling agency and identity development, while accounting for the variables that mediate their activity, including practices, resources, dispositions, school and community cultures. Charteris and Dargusch (2018) argued that teacher educators need to be "assessment-capable" (p. 358) to model authentic assessment practices and foster preservice teacher learning. Assessment capability involves engaging in professional conversations about making judgements against standards and critical reflection on assessment beliefs and roles of the assessor.

This notion of assessment capability underscores Adie and Wyatt-Smith's (2020) investigation of conditions for authentic assessment of profession readiness and risks to fidelity of the GTPA in its implementation across diverse higher education and school placement sites. Acknowledging tensions between standardisation and situational flexibility, they examined the conditions for ensuring fair and equitable practices across state jurisdictions and universities. Drawing on the work of Gee (2000) and Fairclough (1995), Adie and Wyatt-Smith's (2020) research revealed that, during the trial period, the GTPA acted as a "disruptor to historic ways of 'doing' teacher education" (p. 279) and "being a teacher educator" (p. 274). In challenging assumptions and normalised practices, the development and implementation of the GTPA directly impacted teacher educators' roles and identities. Adie and Wyatt-Smith (2020) concluded that the GTPA trial was "an exercise in collaboration generated through stories of discomfort and dissonance within a reform agenda for teaching and teacher education" (p. 283). In this chapter, we contribute further to this story of teacher educators' collaborative work through our reflections on, and analysis of, our experiences as members of the Collective, implementing the GTPA in the state of Victoria.

6.2 The GTPA Collective

The Institute for Learning Sciences and Teacher Education (ILSTE) led a group of Australian universities to implement the GTPA and progress new conversations about competence of ITE graduates. Teacher educators from 13 universities in six Australian states and territories collaborated in 2017 to trial a culminating, authentic assessment of teaching practice (Adie & Wyatt-Smith, 2020). A unique characteristic of the GTPA is the process of moderation across the collective institutions to ensure shared interpretations of the GTPA assessment criteria (see Chap. 3, this volume, for details of this process). During this development period many layers of professional conversations resulted in academics "re-seeing through an unfamiliar lens" (Adie & Wyatt-Smith, 2020, p. 276). The authors of this chapter were each a part of the Collective at different stages, all with responsibilities to implement the GTPA in their own universities in Victoria. In this chapter we report on our experiences of working with the GTPA instrument examined through a collaborative research methodology and analysed through Edwards' (2011, 2012, 2017) concept of relational agency.

6.3 Relational Agency in Collaborative Professional Practice

Implementing the GTPA has compelled teacher educators to work on a national level, across universities, and state/territory jurisdictions. This unique and complex situation requires authentic, collaborative practice in order to achieve shared understandings of graduate assessment processes, to maintain the quality and fidelity of the GTPA assessment instrument.

In this context, Anne Edwards' (2011, 2012, 2017) concept of *relational agency* provides a useful lens for analysis. Relational agency refers to "the capacity for working with others to strengthen purposeful responses to complex problems" (Edwards, 2011, p. 34). It transcends individualistic interpretations of agency to embrace a broader moral framework that considers the wellbeing of others as well as the self (Edwards, 2012). Edwards' conceptualisation of relational agency is underpinned by Engeström's (2007) Cultural Historical Activity Theory (CHAT), and his notion of *expansive learning,* which examines how cultural or organisational change occurs through collaborative work. According to Engeström (2007), change or expansive learning occurs when participants experience *contradictions* (or dissonance) within the activity system and work together to resolve these contradictions.

Edwards' (2011, 2012) research produced three conceptual 'gardening tools' to enhance collaborative professional practice: *relational agency*, *common knowledge* and *relational expertise*. Edwards (2012) contends that relational agency develops in two stages:

1. Working with others to expand the object of activity so that its complexity is revealed, by recognising the motives and the resources that others bring to bear as they too interpret it.
2. Aligning one's own responses to the collective interpretations, with the responses being made by the other professionals as they act on the expanded object (p. 26).

Common knowledge refers to building a common language through shared experience, to enable effective, joint decision-making. Relational expertise involves moving beyond specific knowledge or specialist skills to understand *what matters* to other professionals and *why* it matters, or what they bring and want to do (Edwards, 2012). Characteristics that help build relational expertise and common knowledge include clarifying and focusing on the wider purpose; being open to alternatives; understanding one's professional values; being responsive to others, knowing who to ask; rule-bending and risk-taking; taking a pedagogic stance; developing collaborative processes; and learning from practice (Edwards, 2011). These processes require conditions that allow for dialogical interaction across practice boundaries.

As a lens for interpreting our findings, Edwards' 'gardening tools', provide a means for understanding our collective experiences with the GTPA and for identifying key features of that experience. This conceptual framework aligns well with the research methodology of collaborative autoethnography, in that both value multiple subjectivities, relational practice and understanding the conditions for engagement in joint work.

6.4 Research Approach

Several studies have investigated professional standards for teachers (Mayer et al., 2005), what constitutes evidence of profession readiness (Alexander, 2018), employment pathways and retention (Mayer et al., 2017), the impact of ITE (Ell et al., 2019), and more recently, a sharpened focus on the validity and reliability of teaching performance assessments (Adie & Wyatt-Smith, 2020; Wyatt-Smith et al., 2020). In writing this chapter, we add to the body of research related to the experiences of teacher educators, widely perceived to be under-researched (Rowan et al., 2019). Also under-researched is the professional development of teacher educators engaged in implementing graduate teaching assessments. A focus on our experiences with the GTPA necessitated a qualitative approach to the investigation and our interest in our collective understandings prompted a collaborative form of enquiry.

6.4.1 Collaborative Autoethnography

Collaborative autoethnography (CAE) enabled us to investigate and represent our individual and collective stories in a way that honoured multiple subjectivities and contextual complexity (Chang et al., 2013). Working within an interpretivist paradigm, we used CAE and dialogic analysis to better understand our shared experiences of working with the GTPA. As the name suggests, CAE is "simultaneously collaborative, autobiographical and ethnographic" (Chang et al., 2013, p. 17). While these processes may seem at odds, they are complementary when used to integrate self-reflexivity with cultural interpretation and multiple subjectivities to interrogate the meanings of our experiences. It is the "embrace of cultural interpretation that distinguishes autoethnography from other autobiographical or self-narrative writings" (Chang et al., 2013, p. 21).

In undertaking a collaborative autoethnographic method, the authors were both researchers and participants in the study. Data were generated through a process of writing and reflection, first individually then shared, on our accounts of our work with the GTPA (see also Doyle et al., this volume). The process was autobiographical in that reflections on our experiences included emotional and personal responses, as well as professional reflections on our respective roles and responsibilities in the educational context. It was ethnographic and collaborative in that we analysed the autobiographical and contextual data through an iterative process of individual reflection, dialogue, and collective thematic analysis. Throughout the process, our experiences were explored and analysed in relation to the context in which we were positioned within our institutions and the wider educational landscape. Meaning-making emerged through our attempts to collectively understand our situated experiences in the local and Australian educational contexts. Our intention was to capture both our individual and collective voices to produce a unique, joint perspective on the experiences of this group of teacher educators in the state of Victoria, engaging with the GTPA instrument between 2017 and 2020.

Following the methodology of CAE, this process explored:

1. emotional resonance: our own historical and current feelings in participating, developing and delivering the GTPA
2. experience specificity: our experiences within two universities in Victoria from 2017 to 2020
3. analytic reflexivity: an iterative process conducted through dialogue, reflecting on our individual and collective experiences of inter- and intra-university professional development and moderation activities, and
4. inter-subjectivity: interrogation of each other's ideas to deepen our understanding of our experiences, offering "a scholarly space to hold up mirrors to each other" to explore our subjectivities and develop common themes (Chang et al., 2013, p. 26).

6.5 Method

The study was conducted in two main phases: (1) data generation, and (2) data interpretation and analysis, in line with the CAE methodology. Methods of data generation tended to evolve as the project developed. As researchers, we are aware of the limitations of purposive sampling (Creswell, 2008), and that investigating experiences of academics from only two universities would constrain the narrative and the data that emerge. However, this choice was logical because of the close proximity of our universities and the fact that we were colleagues who had engaged in shared GTPA moderation processes.

In line with the methodology, decisions were made at research group meetings to place boundaries around the nature of our individual and collective reflections. The kinds of questions and issues that were most salient to the investigation were discussed and formed the research questions:

1. How has the implementation of the GTPA impacted on our roles as teacher educators?
2. What issues arose?
3. Where did the main benefits and tensions lie in our experiences of the development and delivery of the GTPA?

Notes from each individual's reflection and each group meeting were recorded in writing and shared via Dropbox™. Participants were encouraged to reflect on the data and add comments or questions to interrogate them. In this way, narratives emerged, and themes developed over a period of six months.

Themes emerging from the data were determined from an ongoing analysis of the data including the questions and comments made by the four authors. Themes were considered by the group as they were identified, and decisions were made about which were most salient in the context of the research questions, our experiences of implementing the GTPA, and the benefits and tensions we encountered. Through iterative collaborative autoethnography methods, specific categories were identified within the key themes (see Table 6.1).

Table 6.1 Key themes and categories

Theme	Categories
Change (curriculum)	ITE curriculum and teaching practice Impact on preservice teacher professional experience Teacher educator engagement
Confidence	Imposter syndrome Uncertainty regarding assessing GTPA—making judgements public Assessing out of field Inequity due to variation between schools
Collaboration	Shared understanding of the GTPA instrument Moderation of assessment Community of assessors

These themes informed the analysis of our reflections, particularly as they related to the concepts of relational agency and relational expertise.

6.6 Findings

This section presents each theme and highlights specific elements within it. Examples from the data are used to illustrate key outcomes. Quotations of individual authors' words are indicated in brackets (e.g. A/B/C/D) according to the order in which they are listed for this chapter. The two institutions involved are referred to as university A and university B.

6.6.1 Change

6.6.1.1 ITE Curriculum and Teaching Practice

Implementation of the GTPA came at a time when many ITE institutions were transitioning between accrediting new programs designed specifically for the new regulatory frameworks and retrofitting existing programs. University A embarked on their accreditation work during the trial stage of the GTPA implementation in 2017, therefore construction of the curriculum supporting the GTPA occurred without the full vision of the instrument,

> I recall asking questions of those involved [in the design of the GTPA] as I was trying to get a clear picture of what the GTPA would entail and what it would mean for preparation of the ITE students throughout our programs… responses to my questions tended to be vague. (A)

This quote emphasises professional learning as a feature of implementation in a period when there was no precedent for a culminating competence assessment in the history of Australian initial teacher education. Teacher educators were learning 'on the go' as they addressed different aspects of curriculum development.

Curriculum design shifted with changes to the nature and structure of the GTPA to become "a terminal assessment, not staged submission…[with] a set word count" (C). Changes to university curriculum necessitated navigation of "complex internal and external approval processes on an ongoing basis" (B) adding an extra layer of internal university approval workload beyond external accreditation requirements (see also Chap. 4, this volume).

University B undertook its accreditation journey when the GTPA design was largely settled, but at a time when there were several teaching performance assessment instruments potentially available. Decisions about which instrument to adopt were both political and practical. They were not made until very late in the accreditation process, so curriculum design was left open to accommodate different possible teaching performance assessments.

In retrofitting the GTPA to existing programs, we found that, while some skills were present within our programs, they needed to be further developed or made more explicit. For example, in some cases preservice teachers' experiences with student data were dependent on what they had been exposed to during school placements. To counter this, modifications were hastily made to the curriculum in one final year professional experience unit:

> I spent a lot more time revisiting what might constitute evidence of learning as well as how to interpret and analyse learning data. I made links between the GTPA requirements… the students started to see that they had the skills and knowledge to be able to undertake the GTPA with confidence. (D)

This example highlights a recognition by the authors that preservice teachers must be explicitly prepared for the GTPA throughout their degree. This included designing sequential units that developed their skills to "articulate and justify their teaching decisions and choices … to inform planning… [and] evidence-based teaching practices" (D).

6.6.1.2 Impact on Preservice Teacher Professional Experience

The implementation of the GTPA required teacher educators and preservice teachers to develop a common language for discussing teaching, learning, and assessment processes: "we needed to develop a metalanguage linked to the GTPA expectations across the program and amongst all teaching staff so that… it is not new language and concepts for final year students" (D). This need was exacerbated by the fact that the GTPA is implemented across states where each jurisdiction may have differing practices and terminology. One example is the requirement for preservice teachers to moderate their judgements about student performance on a classroom assessment task for summative purposes in the school setting. Moderation is a practice that involves teachers discussing how they have arrived at a decision about the quality of student work, assessed against required standards. In Victoria, although a requirement of APST 5.3, moderation between preservice teachers and their supervisors has not been common practice during school placements. Moderation therefore needed to be explicitly taught in our professional experience units and school mentors needed to be made aware of this expectation.

The GTPA required further adjustments to the ways in which placement practices are undertaken. For example, some schools were uncertain about allowing preservice teachers access to student data and mentors had varying levels of experience with the evidence-based requirements of the GTPA. This impacted preservice teachers' final placement experiences and created more stress than usual. One author noted a need to change her approach to teaching in order to manage preservice teacher stress levels:

> I chose to modify the intended curriculum and spend more time on stress management and wellbeing exercises to calm the PSTs [preservice teachers] down… I was surprised at the sense of panic that characterised the first three days of the intensive course… I wonder how

> much of the anxiety was related directly to the GTPA or how much was general anxiety about the final placement as well. (D)

These issues have required rethinking how our professional placement (practicum) teams and academics teaching GTPA units support preservice teachers and mentors in schools to facilitate the GTPA process so that it is a positive professional development experience rather than an onerous task.

6.6.1.3 Teacher Educator Engagement

Curriculum change of this magnitude required academics teaching within ITE programs to support the adoption of a more integrated approach to curriculum design and delivery. Such change was not without its challenges. One author recognised that it required "all academic staff involved in the GTPA teaching and marking are able to attend meetings and are clear about the institutional and cross-institutional moderation processes" (A). Some academic colleagues were critical of what they saw as a neo-liberal discourse requiring conformity to externally imposed regulatory frameworks. Others did not support the decision to join the GTPA Collective, preferring an alternative teaching performance assessment (D). Some were initially unconvinced about the benefits of the GTPA instrument. This was reported to be evident in the talk of "those who had not attended the ILSTE training sessions [and so] had a lack of confidence in the unknown and unproven tool" (C). (See Chap. 2, this volume, for a discussion of this range of potential responses to TPAs.)

The implementation of the GTPA added new challenges and rewards in the work of the authors. We all became active participants in embedding the GTPA skills and common language with students and colleagues in our respective ITE programs. We continually worked to build the expertise of academic staff who were not able to participate in the ILSTE training sessions. Through these experiences our relational agency and relational expertise developed.

6.6.2 Confidence

6.6.2.1 Imposter Syndrome

An unexpected outcome of the collaborative ethnographic experience was the finding that each of the authors, regardless of their role and length of time involved in the GTPA, expressed feelings of self-doubt about their ability to assess and make judgements. We each, initially, lacked confidence, or suffered from 'imposter syndrome'. Imposter syndrome is defined as "a collection of feelings of inadequacy that persist despite evident success. 'Imposters' suffer from chronic self-doubt and a sense of intellectual fraudulence that override any feelings of success or external proof of their competence" (Corkindale, 2008, para. 3).

6.6.2.2 Uncertainty Regarding Assessing GTPA

Despite being accomplished academics, each with many years' experience in tertiary and/or teacher education, our feelings of uncertainty and a lack of confidence at times came to the fore. This lack of confidence was attributed to internal and external factors. One author, despite being involved in the trial process from the beginning, commented,

> Being new to ITE I often felt under-prepared when attending the workshop and planning days. I was in the room with educators who had been teaching preservice teachers for a lot longer than me. I had been a teacher in secondary schools but had not taught preservice teachers, and, in particular, I had not taught any of the method subjects. (B)

Another, who became involved with the Collective later than her colleagues, said she felt "a bit nervous because it felt a bit like jumping in at the deep end" and she did not know what to expect (A). This feeling of uncertainty was not uncommon because even those who were leading the process commented that "we were designing a plane while flying it" (B). A third author who was a program coordinator and new to the GTPA in 2019, commented,

> I wasn't confident in my understanding of the GTPA, marking and moderating or indeed how it worked across institutions. Throughout the workshop a number of issues related to implementing the GTPA caused me to think about possible implications for my own degree program. (D)

These comments demonstrate how, as experienced academics, we grappled with learning the structures related to implementation of the GTPA while, on a second level, we were pragmatically considering its impact on our programs and students.

6.6.2.3 Assessing Out of Field—Making Judgements Public

While we each had confidence in our skills and abilities in our respective discipline specialisations, we were all challenged in some ways at the Collective's workshops run by ILSTE. We were marking GTPAs that had been completed in primary schools, grades 1–6, or in secondary schools in unfamiliar disciplines such visual arts, science, or history. In the statistical evaluation process, we were called upon to argue whether a submission met or did not meet standards. One author commented, "I was in awe of the depth of knowledge and subject specificity of many others in the room. I felt underqualified to contribute many times over" (B). Those of us who were secondary teacher educators were not confident to make judgements about primary school samples and the reverse. However, throughout this process, the passion of the educators in the room was always evident and inspiring. We forged a learning community: on reflection, our shared feelings of uncertainty were important in making us more open to other people's perspectives on the GTPA tool and to contributing to a robust final product.

6.6.2.4 Inequity Due to Variation Between Schools

Lastly, we were not confident that our students would have equitable experiences in the many primary and secondary school classrooms. We questioned whether preservice teachers undertaking the task in schools that understood and aligned with the GTPA practices were advantaged over those in schools where less emphasis was placed on using evidence-based teaching practices. We were not confident that our students would be equally supported in this final placement, raising some uncertainty about equity of opportunity and how that related to our assessment of the GTPA.

Our concerns about the equity and efficacy of the tool opened up new levels of conversations within the Collective monthly meetings, as well as between academics in our respective universities. This constant reflection that crossed university silos was an additional process that contributed to our relational agency development.

6.6.3 Collaboration

Our experiences of working in the GTPA Collective highlighted that engagement with developing, refining, and implementing the instrument has enhanced our professional development as teacher educators. This work has operated on multiple levels within and between our universities.

6.6.3.1 Shared Understanding of the GTPA Instrument

Participation in the Collective and the implementation of the GTPA instrument in our respective universities created a "steep learning curve for all stakeholders" (C) that, perhaps, generated an increased openness to learning among participants. The cross-institutional assessment was new to us, so we needed to learn with each other. Our participation in the GTPA Collective necessitated sharing of expertise, enabling rich and robust conversations about quality in teacher education and assessment of graduates' readiness to teach. Through supportive collegiality we were able to build shared understandings of the GTPA instrument, criteria, and standards. While the impetus to develop the GTPA can be sourced to the ITE program standards (AITSL, 2015, revised 2018, 2019), the collaborative process was facilitated and modelled by ILSTE's leadership of the Collective. The leadership team genuinely sought input and feedback from university and jurisdictional representatives. This recognition of participants' collective expertise was a strong feature of the GTPA experience for all of us.

> One of the most positive aspects of my involvement in the GTPA has been the opportunity to collaborate with academics from other universities about ITE, schools' expectations of preservice teachers, assessment processes, interpreting assessment criteria and related

issues… there has been a willingness amongst participants to openly discuss concerns and to contribute productively to the development and improvement of the GTPA. (A)

The meetings saw an unprecedented process of collaboration between Australian ITE providers to produce a quality assessment instrument for determining profession readiness. Different practices and expectations of preservice teachers in professional experience were discussed among teacher educators, and we gained a more holistic educational perspective across discipline areas, primary/secondary levels, and university and state jurisdictional boundaries. Differences in regulations around preservice teacher registration and placement practice were surmounted.

6.6.3.2 Moderation of Assessment

Moderation was the critical process that brought people together. New territory was entered when academics debated, "What constitutes an overall pass in primary and secondary preparation programs?" The question was understood to include all discipline specialisations. This understanding was reached collectively where academics "were called upon to argue our positions" (B). This was a significant learning curve and professional development process (C).

6.6.3.3 Community of Assessors

The vision of collaborative learning extended beyond the face-to-face workshops. The Collective met regularly online where concerns "were openly discussed" (A). This was the generous sharing of "professional learning… required for fidelity and practices [that] would need to change" to achieve rigorous teaching of the skills embedded in the GTPA (D) which were not routinely taught in programs to date. The sense of belonging to a community of GTPA assessors was extended through participation in supplementary activities such as presentations and panel participation at conferences; as one author noted, "I was feeling part of a cohort and co-delivered/co-presented at AARE [Australian Association for Research in Education] at the end of 2017" (B).

In the sites of our own universities, conversations about assessment of graduate readiness and the GTPA instrument have opened up spaces for ongoing dialogue about quality assessment and ITE program design. Author A initiated a joint moderation process across our two universities, which are geographically located in the same suburb. This moderation process was facilitated by author B, who welcomed academics from university B and another university to participate in a moderation process for our own professional development purposes. Academics involved saw this as an important learning experience that encouraged their confidence in the GTPA instrument and in their capacities to prepare preservice teachers to undertake the assessment. It also increased their sense of being part of something bigger than their own institutions. These forms of collaboration highlight how the 'ripple effect'

of the implementation of the GTPA brought people together to form a professional community.

6.7 Discussion

The authors' professional development journeys, as teacher educators and colleagues involved in GTPA implementation, varied according to our respective roles. However, the themes explained in the findings indicate key common elements of our shared experiences. In this section we discuss the implications of the key findings for our own work as teacher educators, for ITE programs, preservice teacher development and the wider profession of teachers and teacher educators. The discussion is informed by Edwards' (2011, 2012) "gardening tools" (relational agency, relational expertise, and common knowledge) and Engeström's (2007) concept of expansive learning.

6.7.1 Artefacts and Agents of Change

Over the journey of being GTPA initiators in our respective universities we have been active innovators of change in developing new curricula, identifying gaps in existing courses, socialising our colleagues and students to the metalanguage related to the GTPA, and negotiating internal and external accreditation requirements. We have traversed the multiple discourses that impact policies governing accreditation of, and practices within, ITE programs. Churchward and Willis (2019) noted that "for teacher educators, the complexity of teaching and teacher education in a policy climate with competing agendas creates disequilibrium" (p. 260). This investigation of the authors' experiences of the GTPA revealed that, in this case, disequilibrium resulted in productive outcomes. This productivity in the face of disruption to past procedures and practices is supported by Engeström's (2007) theory of expansive learning that suggests participants engaged in joint activity respond to dissonance or disequilibrium by solving problems and finding new ways forward. It also reflects Adie and Wyatt-Smith's (2020) finding that engagement with the GTPA trial, disrupted teacher educator's normative assumptions and practices, prompting a "reshaping [of] professional identities… rethinking ways to practice and talk about practice" (p. 283). Our reflections revealed that, in implementing the GTPA, the authors faced challenges at a local level within our universities and, to a lesser extent, at the Collective level. The strength of the Collective and of our collegial relationships, was such that, as problems or questions arose, we were able to share our experience and expertise to respond to issues and to mutually support each other.

The authors' experiences enabled improved quality in the provision of initial teacher education at our universities. Notwithstanding Churchward and Willis (2019) and Loughran and Menter's (2019) concern about the constraints of standardised ITE practice, we found that the nature of the GTPA instrument and the structures of the

GTPA Collective afforded positive change and professional growth. The compulsory nature of the GTPA made it a non-negotiable and powerful instrument in shaping program content and pedagogy, particularly in professional experience (also known as fieldwork, practicum, or placement) units. As a high-stakes assessment for preservice teachers, the GTPA has prompted ongoing pedagogical and curriculum development by teacher educators.

The GTPA has provoked important professional conversations about assessment of "profession readiness" (Charteris & Dargusch, 2018), including reliability and fidelity of assessment (Adie & Wyatt-Smith, 2020) within ITE programs and among colleagues in the Collective. Like any cultural artefact, however, the ways in which it was conceived by the Collective and interpreted by teacher educators in the respective universities also shapes teaching, learning and assessment practices within and across institutions. The Collective played a central role in framing the GTPA practices and assessment processes. To this extent, we can be seen as having agency within our spheres of influence because of the need for ITE providers to address the national policy agenda.

6.7.2 Uncertainty and Ambiguity

All four authors engaged in this GTPA work experienced times when we felt uncertain, lacked confidence, or were unclear about particular aspects of the GTPA processes. The effect of working across differing areas of expertise within ITE was that we needed to consider our own professional knowledge and values as well as different points of view in making our judgements. Acknowledging doubts, openly questioning, working to understand the views of others and respecting differing voices have been part of this process. To this extent, following Edwards' (2011, 2012) concept of relational agency, we needed to exercise relational expertise by recognising the knowledge and skills that colleagues brought to the conversations and also to develop a shared language, or common knowledge, in order to work towards a reliable, shared assessment instrument.

Our initial discomfort was bound up with our identities as academics in a wider, national educational context. Historically, teacher educators have tended to work in their institutions and, more broadly, within their jurisdiction, a point Hattie notes in his Commentary (this volume). The opportunity to collaborate across jurisdictions, universities, and state borders was a new and positive experience for us. Our reflections revealed the affective nature of our professional work as well as cognitive implications for our senses of professional self. As Loughran and Menter (2019) asserted, this public work is "at the centre of the teaching of teaching… sharing, critiquing and building a knowledge base is a crucial aspect of scholarly development and… shifts the focus from job ready training to professional development of pedagogical expertise" (p. 225). Making our judgements public within the Collective involved risking our feelings of professional competence and identities as experienced teacher educators.

However, this work was an essential feature of building the fidelity of the GTPA instrument across a range of contexts (Adie & Wyatt-Smith, 2020). The disruption to identities and accepted practices was uncomfortable at times but, in our experiences, led to growth and professional development. Over the journey of working with the Collective, the authors found it was a safe space for discussing different perspectives and that moderation and validation of the GTPA instrument contributed to our professional learning and sense of belonging. The holistic experience of discussion and development of the GTPA tool, enhanced by moderation across states and universities, has been critical in the development of our relational agency and expertise.

6.7.3 Collaborative Professional Development

We believe that the GTPA experience has enabled us and our initial teacher education programs to grow stronger, primarily because of the collaborative work it has entailed. In part, collaboration was encouraged by the conditions in which we worked. The practice structures, the range of expertise within the Collective and the research processes set up by ILSTE, both necessitated and enabled collaboration. Our GTPA experiences exemplified relational expertise in professional practice where "different specialist expertise is brought to bear on both interpreting and responding to a complex problem [and] joint interpretations are crucial to ensure that as much complexity as possible is revealed" (Edwards, 2017, p. 1).

Collaboration emerged over time through an "alignment of effort" and a "common sense of mutuality" (Edwards, 2017, p. 2) between colleagues in the Collective. Our mutual need to moderate GTPA work and strengthen our own and our colleagues' understanding of the task within our universities, generated collaborative work. In so doing we traversed what is often seen as competitor status between ITE providers. We combined our knowledge for our common purpose. This level of collaboration was assisted by the authors' pre-existing relationships that had developed previously when both were working in the same university. The collaboration continued when one author moved to a different site. These collegial relationships enabled a level of trust and openness to working together on a joint moderation exercise that facilitated the professional development of the authors and their colleagues. This example illustrates the impact of the GTPA in fostering collaborative academic learning and relational agency among ITE academics across universities.

Our relational agency is demonstrated through increased openness to negotiation and a willingness to understand different perspectives, valuing the skills and what matters to others (Edwards, 2017). In so doing, we increased our understanding of the complexities of implementing a fair and reliable assessment of preservice teachers' profession readiness. Relational agency was also evident in the leadership roles we have each undertaken within our institutions to actively petition for the GTPA within our programs and among our colleagues.

Further, the collaborative autoethnographic methodology used within this research project has contributed to our professional learning and development of relational agency. By reflecting on our individual and collective experiences with a focus on emotional resonance, experience specificity, analytic reflexivity, and intersubjectivity, we have been able to explore, on a range of levels, our different roles, perspectives and motivations for engaging with the GTPA. In this process we recognise multiple subjectivities and a range of educational opportunities and challenges arising from the GTPA project.

6.8 Conclusion

In this chapter we have presented our experiences as four academics tasked with the implementation of the GTPA in two universities in the Australian state of Victoria. We have explored our different involvements with the program, our experiences in developing new units to meet ITE accreditation requirements, as well as retrofitting the final assessment task to existing units. We have presented this collaborative autoethnographic research to contribute to the body of literature that explores the experiences of teacher educators, noting that our discipline is one of the most reviewed and politically charged in universities.

In relation to the questions framing this research, we concluded that our engagement with the GTPA has impacted our roles as teacher educators by increasing our understandings of complexities related to assessment of profession readiness, deepening our awareness of colleagues' knowledge and perspectives, and expanding our respective leadership roles in our universities. Issues arising from implementing the GTPA were multi-faceted. These included preservice teachers' anxieties and capacities to negotiate differing conditions in school placements, academic colleagues' levels of engagement with the GTPA, and traversing different jurisdictions and university regulations. Some of the key tensions experienced by all four authors at different times were feelings of uncertainty around making public judgements in moderating assessment and engaging with colleagues who saw the GTPA as representing a regulatory regime to be resisted.

The key outcome of our GTPA collective experiences is that it has been a powerful professional development opportunity. It enabled us to engage in educational dialogue with colleagues across Australia and to take ownership of the conversations and judgements about assessment of graduate teacher profession readiness. Our capacities for relational agency in program review and curriculum renewal have, by necessity, strengthened through this process, as has our relational expertise and common knowledge. We posit that this collaborative inter-university work has positively influenced teacher educators' practices and is impacting cultural norms within ITE.

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Chapter 7
Redefining Boundaries in Initial Teacher Education: Creating a Collective Vision and Approach to Preparing High-Quality Graduate Teachers

Michelle Parks and Chad Morrison

Abstract Professional experience represents a critical intersection between the academic programme and practice contexts as key elements within initial teacher education. It allows preservice teachers to engage in the roles and responsibilities of teaching while significantly enhancing their perspectives, knowledge and practices. These experiences represent sites of critical boundary crossings, where stakeholders associated with initial teacher education often pursue disparate priorities, perspectives and practices. Because of this, effective boundary crossings are critical to this work, but are also inherently challenging. This chapter reports on the redefining of boundaries between one university and its stakeholders for the purpose of developing a collective vision and common objectives. The introduction of a teaching performance assessment within Australian initial teacher education provided the impetus for reform. In response, a strategic, relational approach was developed to redefine how stakeholders reimagined shared practices. Importantly, this approach was strengthened through membership to what was referred to as the Graduate Teacher Performance Assessment (GTPA) Collective. The consequences of this included enhanced relationships, informed perspectives, new and shared language and practices and more regular and productive boundary crossings for those associated with this work.

7.1 Teacher Education Within a Changing Context

The introduction of teaching performance assessments into Australian initial teacher education coincided with other structural reforms taking place within the education landscape of Tasmania, the island that forms Australia's southernmost state. These reforms focused on priority areas for student engagement and retention in

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response to identified performance and achievement gaps of Tasmanian students (Corbett et al., 2019; Cranston et al., 2014). Structural changes included significant reforms, such as the expansion of secondary schooling from year 10 up to year 12 across a broader network of metropolitan and rural schools. At the same time, teaching workforce initiatives were developed and implemented to broaden the qualifications and expertise of Tasmanian teachers in response to changing requirements (Teachers Registration Board of Tasmania [TRB], 2016a). Alternate approaches to preparing preservice teachers were being explored by the Tasmanian government alongside more traditional ones, with small cohorts of *Teach for Australia* Associates[1] entering rural and remote schools in Tasmania's north and west (Teach for Australia, 2020). At the same time, considerable reforms were rippling through Australian initial teacher education on the back of the Teacher Education Ministerial Advisory Group (TEMAG) review (Craven et al., 2014) and evolving course accreditation requirements introduced by the Australian Institute for Teaching and School Leadership (AITSL) in 2011 and revised several times since (AITSL, 2015; revised 2018, 2019). Many of the recommendations of this review emphasised strengthening connections between universities and schools for the purpose of preparing 'classroom ready' teaching graduates (Craven et al., 2014). Initial teacher education providers were called upon to consolidate programme outputs through a nationally mandated teaching performance assessment (AITSL, 2015) located within the final year of all initial teacher education programmes. This mandated course requirement necessitated course review and restructure with specific attention paid to end-of-course summative assessment practices to promote preservice teacher readiness within a specified range of teaching tasks. Alongside this, there was growing engagement in alternative models of teacher education, including the proliferation of online and blended study in teacher education (AITSL, 2018). Teacher educators' work has evolved rapidly as a result.

Tasmanian educational leaders recognised a growing need for innovation in relation to this reform agenda. In particular, traditional barriers between universities and schools (Zeichner, 2010) had long been recognised and were compounded by Tasmania's geography and demographic distribution. These factors include an ageing population, concentrated in the capital of Hobart in the south and in regional centres in the north and north-west of the island. Equally, high unemployment has contributed to many young Tasmanians seeking educational and employment opportunities on the mainland, which, in turn, has produced historically persistent interstate migration (Denny, 2015). These factors impact measures to create and maintain a teaching workforce. Consequently, part of the reform agenda was a focus on preparing graduate teachers with context-specific, place-based knowledge of teaching and learning (Department of Education, n.d.b). This connection between

[1] Teach for Australia is a non-profit organisation delivering an alternative model of initial teacher education throughout Australia. The program is a two-year employment-based pathway into teaching. Associates study a Master of Teaching (Secondary) while working in the profession. Associates are already degree qualified in their teaching subject areas and complete 25% of the Master of Teaching and a two-week school practicum before entering the classroom (see Teach for Australia, 2020).

the needs of local communities, the unique attributes of school contexts and the needs of the education system for workforce capacity underpinned initiatives for flexible and tailored approaches to initial teacher education (Department of Education, n.d.a). Equally, this intention was underpinned by a collective determination to establish a 'nation-leading system of coordinated education, training and professional learning for pre-service, early career, and experienced teachers'. (Education Workforce Roundtable, n.d., p. 2). This agenda positioned the preparation of preservice teachers at the heart of collective activity within Tasmania's education sectors and brought together key stakeholders (preservice teachers, supervising mentor teachers, school leaders, teacher educators, system leaders and administrators) to respond to the needs of the Tasmanian community.

A lack of productive interaction between schools and universities has been recognised as a significant and persistent inhibitor of initial teacher education (Southgate et al., 2013) and was central in the development of earlier teacher education initiatives in Tasmania (Allen et al., 2013). One response was the establishment of the Tasmanian Education Minister's Education Workforce Roundtable, which is a group of expert education leaders brought together to build a future-focused education workforce for Tasmania (Education Workforce Roundtable, n.d.). The importance of partnerships between key stakeholders (Bahr & Mellor, 2016; Le Cornu, 2015, 2016) was central in the establishment of this group and influential in developing strategies to deliver contemporary, high-quality initial teacher education.

The proliferation of innovative approaches to initial teacher education in Australia has focused heavily on the nature of interaction and collaboration between universities and schools. Examples include the Teacher Intern Placement Program, Tasmania (Department of Education, n.d.a); Teaching School, Victoria (Lang et al., 2015); Professional Experience Hub Schools, New South Wales (NSW Education Department, n.d.); Teacher Education Centre of Excellence, Queensland (Department of Education, 2020); Year-long Internship, Western Australia (Murdoch University, n.d.); and Affiliated Schools Partnership (University of Canberra, 2020). While these programmes vary, common to them is an emphasis on strategic interactions where school- and university-based teacher educators cross traditional boundaries in order to progress teacher education and promote preservice teacher learning. Within that frame of reference, the introduction of teaching performance assessments provided a mechanism for developing common language, priorities, practices and expectations around this work. This chapter expands on the boundary crossings and relationship building that were undertaken to support the introduction of the Graduate Teacher Performance Assessment (GTPA®[2]; Institute for Learning Sciences and Teacher Education, Australian Catholic University, 2020) into initial teacher education in Tasmania.

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[2] Acknowledgment: The Graduate Teacher Performance Assessment (GTPA®) was created by the Institute for Learning Sciences and Teacher Education, Australian Catholic University and has been implemented in a Collective of Higher Education Institutions in Australia (https://www.graduatetpa.com/).

7.2 Understanding Existing Boundaries and Identifying Crossing Points

Initial teacher education is situated within complex and contested spaces, particularly at the point of intersection between schools and universities (Bloomfield, 2009; Lang & Nguyen, 2018). Intersections expose a diversity of perspectives and expectations, which sometimes align and other times do not. They either create opportunities or introduce challenges that inevitably characterise these relationships (Peters, 2011). Moreover, these tensions inform the contexts for this work and the outcomes associated with it (Ball et al., 2011a; Cochran-Smith, 2013). These contextual realities often exist as boundaries that have proven difficult to cross (White et al., 2018), and attempts to reconfigure them require substantial commitment and vision (Grudnoff et al., 2017).

The complex nature of initial teacher education reflects the diverse contexts where this work takes place, the range of people undertaking this work and the divergent knowledge of groups that engage with and explain it. The different ways that preservice teachers, teacher educators, teachers, school leaders, administrators, and others interpret common language and practices (Star & Griesemer, 1989) associated with initial teacher education are an example of the challenges that often arise. This is located at the boundaries of existing perspectives, knowledge and practice (Carlile, 2002). Boundary objects are devices, artefacts, objects, or practices identified in relation to this diversity of perspectives. They facilitate boundary crossings, and in doing so, they redefine the boundaries of knowledge and practice (Oswick & Robertson, 2009).

The rapid introduction of teaching performance assessments within Australian initial teacher education led to a significant reorganisation of priorities and practices that continue to ripple through the sector (Charteris, 2019). The scope and scale of this reform has created disruption to existing knowledge and practice. At the same time, the introduction of teaching performance assessments has created new opportunities to redefine working relationships, language, practices and boundaries. In these ways, the introduction of teaching performance assessments emphasised the traditional boundaries that impact the ways this work has been approached. In relation to the work reported here, the GTPA presents as a boundary object (Oswick & Robertson, 2009) that provided opportunities to develop shared perspectives and create new boundaries.

Complexities associated with this policy reform have been reflected in the anecdotal recounts of school- and university-based teacher educators who have grappled with rapid implementation and ambiguity about the expectations and requirements of an unfamiliar summative assessment task. Some of these experiences are shared across Part 2 of this book. Other responses recognise that teaching performance assessments are providing opportunities for preservice teacher development (Kriewaldt et al., in press). These perspectives reflect recent research on the development, implementation and evaluation of teaching performance assessments happening elsewhere in the world (Stacey et al., 2019) and emphasise links between

rigorous and principled development of teaching performance assessments and indicators of high-performing education systems, as emphasised by Darling-Hammond (2017, 2020).

The policy interest and subsequent policy reforms are understandable in teacher education, given its importance and the fact that it has been described as a problem within many contexts for many decades (Menter et al., 2017). Consequently, understanding the complexities associated with the introduction of teaching performance assessments exists alongside appreciation of the opportunities that are created. This policy reform therefore emerged for us as an opportunity to strengthen the relationships between our university and its stakeholders and to forge new ways of navigating and reshaping the boundaries of this work. Finding productive ways to do this (Alsup, 2006) then became the focus of our attention and activity.

7.3 Mapping Boundaries and Understanding the Contours

Low rates of commencing students in initial teacher education programmes have been a sustained focus for Tasmanian education leaders across sectors. This has been attributed to a range of geographical and demographic factors unique to Tasmanian (Corbett et al., 2019), which had become prevalent in discourse about local teacher preparation. The University of Tasmania had actively sought to contribute to increasing access to university in this area through redevelopment of regional campuses and flexible study modes. At its core, such access aimed to address the paucity of incoming graduates to regional, rural and remote locations across Tasmania and to strengthen the Tasmanian teaching workforce (Allen et al., 2013; Australian Government, 2010; University of Tasmania, 2016).

Many primary and secondary schools in these areas of Tasmania were identified as “hard-to-staff” (Australian Government, 2010, p. 20) and became focal points for joint initiatives with the University of Tasmania. These included the Preservice Teacher Scholarship Program, postgraduate support and internship programmes which offered permanent positions for graduates to remain in selected schools for contracted periods (Department of Education, 2019). Many local preservice teachers expressed a desire to teach wherever the opportunities existed; however, their intentions often changed as they approached career entry (Parks, 2018). The Teacher Internship Placement Program (Department of Education, n.d.a) emphasised collaboration between the Department of Education and the University of Tasmania and served as a mechanism to recruit these teachers to contexts in need. Although appointees are identified as highly competitive and are offered positions with additional incentives, successful graduate teachers would often ‘do their time’ before seeking transfers to Tasmania’s inner regional areas. This had the effect of creating a transient teaching workforce with concentrations of inexperienced educators, consistent with national trends (Roberts, 2004). This impacted communities of limited resources and high need as high teacher turnover and attrition affected how schools and communities responded to policy enactment (Braun et al., 2011). Over time, these

factors emphasised the need for a reliable supply of local graduate teachers (Allen et al., 2013) who understand the needs and complexities of their local communities. A collective interest in teacher education within these regional and remote areas reflected a culture of concern about the capacity of the workforce (Education Workforce Roundtable, n.d.). This contributed to opportunities for innovative and targeted responses to workforce planning and an appetite for accountability measures tied to these employment pathways. This manifested itself in the ways the Teacher Internship Placement Program was collectively constructed to meet University of Tasmania course requirements and Department of Education employment outcomes, culminating in preservice teachers completing the newly introduced GTPA as a part of the programme.

The introduction and administration of the internship programme was closely aligned to teacher workforce shortages. Host schools within the programme regularly used their involvement in it to alleviate staffing shortages by applying for a Limited Authority to Teach for their interns. A limited authority served as a conditional registration for their preservice teacher intern, so that the school could fill specified teaching roles where a registered teacher could not be secured. This application was made to the TRB who recognised the workforce challenges and sought to meet the needs of schools, while maintaining the required rigour of the registration process (TRB, 2016b). Simultaneously, the TRB endorsed initial teacher education programme accreditation and continued to implement new measures to progress registered teachers from provisional to full registration within five years of graduation (TRB, 2016a). These new measures called for increased accountability of teacher practice and teaching quality consistent with national standards. These moves were undertaken to encourage Tasmanian school leavers and mature age students to study locally, with the intent to remain in Tasmania long term. The longer-term aim was to impact significantly on the magnitude of the teacher workforce, stability for local communities and improvement in student learning outcomes. Accountability measures of the type implemented in Tasmania, including teaching standards and performance assessments, have been recognised as components of high-quality education systems (Darling-Hammond, 2017, 2020).

Influential system leaders within the Department of Education, University of Tasmania, TRB and independent schools had identified critical aspects of enhancing the teaching profession and, in pursuit of their individual agendas, sought to align with the Teacher Education Ministerial Advisory Group (TEMAG) review recommendations (Craven et al., 2014). However, deeply entrenched and disparate ways of working were a legacy that posed significant challenges. The greatest of these was a sense of stakeholders 'answering to' rather than 'working with' one another. The introduction of the teaching performance assessment, as one outcome of the TEMAG review, provided an opportunity to innovate and to build capacity within this education ecosystem. It became a catalyst for establishing a collective vision for this work. Maguire et al. (2011) explained that discursive strategies and artefacts used by teachers and leaders often shape the outcomes associated with policy enactment in important ways, providing momentum and capability through the sharing of knowledge, collective engagement and focus on meaningful objectives. These same features

are identified by graduate teachers as characteristics of quality teacher preparation programmes, and the outcomes associated with these elements include teachers who are better prepared and remain longer in the profession (Darling-Hammond, 2020).

At the intersection of this work was professional experience (the school-based practical programme or placement). Supervising (mentor) teachers are widely recognised to be critical to the success such programmes. The insertion of a teaching performance assessment was initially viewed by some (usually supportive) local school leaders as the university removing the responsibility for assessing the professional competence of preservice teachers from supervising teachers. This was perceived as calling into question the competency and professional judgement of schools and experienced teachers and excluding them from the teacher preparation process. As a result, some schools refused to engage with the University of Tasmania for future school placements. Concurrently, new national accreditation requirements strengthened the role of the teacher regulatory authority in monitoring initial teacher education programme design to include a teaching performance assessment, further fuelling the 'answering to' perception. These conditions resulted in increased difficulty for the University of Tasmania to obtain school placements for preservice teachers with the same employers who would then seek cooperation to access final year preservice teachers for engagement in internship programmes.

The introduction of the GTPA in Tasmania, however, provided an opportunity to articulate a common set of priorities related to increasing the educational attainment and outcomes for Tasmanians. The strategic work undertaken within the GTPA Collective to develop a robust and reliable instrument (see Adie & Wyatt-Smith, 2018) and to establish valid and consistent mechanisms for assessing preservice teachers' submissions (Wyatt-Smith et al., 2020) piqued the interest of all stakeholders. Such an instrument provided a central focus for action and emerged as a vehicle through which previous disparate ways of working could be set aside to form new, collaborative approaches.

7.4 Redefining New Boundaries and Opening up the Borders

A key feature of the work embarked upon was the reconciliation of priorities of the University of Tasmania, the TRB and school-based partners. Identifying, sharing and addressing the needs of each of the now 'collaborators' through dialogue allowed for exploration to find solutions for shared challenges. University and school partnerships emerged as an area where particular gains could be made. Like other university–school partnership models, leaders in these institutions were seeking innovative ways to respond to the new education landscape, while enhancing the development of exceptional preservice teachers and increasing their opportunities within the early career phase and beyond.

The work of teacher educators who focus on school-based professional experience, and the relationship brokering that comes with this role, is distinctly different from other kinds of academic work (Carter, 2013). It requires a great deal of invisible work to ensure stakeholder participation, engagement and investment. The work is undertaken within 'a network of social practices which are infused with power relations' (Ball et al., 2011b, p. 611) while supporting the legitimation of stakeholder participation and promoting the outcomes associated with it as valuable within these communities of practice (Carter, 2013). The delicate balance of relationships was played out with the introduction of the GTPA, as teachers, leaders and teacher educators worked within local schools to redefine the boundaries around their work with preservice teachers. Individually and collectively, those doing this work exercised their power within their own contexts to maintain momentum and establish shared goals for the GTPA. In the process of this work, there were regular boundary crossings (Loughland & Nguyen, 2018) for all participants. For teachers in schools, this meant providing opportunities for teacher educators and preservice teachers to meet to resolve tensions arising from the requirements of this assessment. For school leaders, this meant supporting their teachers to engage in regular professional development and for working in teams with teacher educators. For teacher educators, this meant relocating teacher education into a range of learning environments (schools, university campuses, the Professional Learning Institute, regional hubs) to respond to local circumstances and priorities. The outcome of this power sharing was a redefining of traditional boundaries between teachers, teacher educators and preservice teachers and a reconstitution of their work.

Importantly, the GTPA Collective provided critical resources, perspectives and contributions to teacher educators in order to initiate the relational work required to implement the teaching performance assessment within their complex and contested teaching and learning contexts. The Collective also provided opportunities for teacher educators to engage with a range of colleagues in redefining the boundaries of their work. Examples of this included engaging in continual professional learning through a national network of teacher educators, gaining access to expert researchers, data analysts, system designers and avenues to work beyond their institutions on matters of significance.

The University of Tasmania was particularly well-positioned to introduce and lead the implementation of the GTPA within its context because of opportunities to redefine the boundaries around this work through connections with its learning community. A decision by the university to join the GTPA Collective early in its existence allowed teacher educators to contribute to the development of the instrument in ways that responded to the needs of dispersed teaching teams, around a common goal and shared vision. At the same time, teacher educators used membership in the Collective to engage with colleagues about the intentions of this work and have discussions about how this could support the redefining of traditional boundaries around preparing preservice teachers, professional learning for experienced mentor teachers, workforce planning and quality teaching.

Teacher educators from the University of Tasmania worked with the Professional Learning Institute of Tasmania, Department of Education Tasmania, Teach for

Australia, Principals Associations, TRB, local school communities and the GTPA Collective to develop and deliver professional learning to a range of stakeholders. This included direct and ongoing collaborations with teams of supervising mentor teachers and school leaders associated with the Teacher Intern Partnership Program located in metropolitan Hobart through small teaching teams in the remote north and north-west of the state. These professional learning opportunities introduced teaching teams to the GTPA and situated this assessment task within local school contexts. Such opportunities often connected local school staff directly with teacher educators, educational researchers, regulators and leaders from across the GTPA Collective.

Other professional learning opportunities connected Tasmanian teachers with a comprehensive body of knowledge and resources developed through the GTPA Collective via local activities within rural hubs. At the same time, educational leaders from the Department of Education engaged directly with the GTPA Collective through working groups and committees formed with the objective of understanding local priorities and implementation issues, both in Tasmania and in other parts of Australia. Representatives and the Registrar of the TRB also engaged directly with preservice teachers, supervising mentor teachers, school and system leaders and teacher educators to understand the implications of GTPA implementation and the perspectives of all those involved in this policy reform process.

Preservice teachers were invited to engage directly with educational leaders in senior roles within the Department of Education Tasmania and University of Tasmania to share their experiences and emphasise their perspectives. Preservice teachers engaged directly with educational researchers and academic staff intimately involved in developing, implementing, and evaluating the GTPA. As emphasised earlier, preservice teachers were also positioned as key stakeholders. They received targeted professional learning about the GTPA as part of their coursework. This was complemented by further professional learning events within their professional experience schools and alongside their peers, supervising mentor teachers, school and system leaders and teacher educators. Lecture theatre doors were opened to school-based partners to join preservice teachers as they unpacked the requirements of the GTPA with school principals, supervising mentor teachers and preservice teachers, who learned together in open discussions and activities and shared their differing perspectives of the key practices of teaching.

In these powerful ways, the introduction of the GTPA within the Tasmanian context became more than just a process for evaluating the capacity of preservice teachers; it became a mechanism for promoting and enhancing the effectiveness of initial teacher education. The critical point is that high-quality education systems align components, articulate a collective vision of what quality looks like and develop and support processes and practices for achieving those objectives (see Darling-Hammond, 2020). In the same manner that these were articulated locally by the Education Workforce Roundtable (Department of Education, n.d.b), the redefining of boundaries around initial teacher education and the introduction of the GTPA became an articulation of what was relevant, valuable and influential.

7.5 Conclusion: A Collective Vision for Redefining Boundaries

Redefining boundaries around the work of initial teacher education, specifically related to the final professional experience and administering the GTPA, created the circumstances for change. This was characterised by teachers, school and system leaders and administrators and teacher educators regularly and strategically boundary crossing (Star & Griesemer, 1989) for the purpose of strengthening initial teacher education. This led to transformation in the ways that these stakeholders understood and approached their work (Akkerman & Bakker, 2011). This represented boundary crossings where stakeholders reorientated from being associated with teacher education to being collaborators collectively responsible for driving high-quality teacher education within their own diverse contexts (see Nuttall, this volume, on the topic of collaboration in the GTPA). In response, the expectations, roles, responsibilities, processes, activities and outcomes associated with the final professional experience placement and the completion of the GTPA were informed by, and reflective of, these interactions and collective vision.

The outcomes associated with this ongoing collaboration included strategic interaction and enhanced engagement to purposefully cross the pre-existing boundaries at all levels of interaction. The offering of support by the University of Tasmania to the school sector in this endeavour fostered goodwill between the two. It involved transparent sharing of information and evidence to evaluate collectively the products of our shared work.

The opportunity for all collaborators to express vulnerabilities as they sought to overcome the difficulties associated with change—which at times seemed impossible—served as a significant contributor to relational shift. Crossing the boundaries that were firmly in place required careful and honest negotiation. It required each collaborator to lead and follow initiatives as they continued to progress both their individual agendas that were parallel and interconnected to the new shared vision that was taking shape. Regular gatherings of key representatives of collaborators presented opportunities to discuss, unpack and expand on the successes and challenges of our work. Discovery of each other's underlying philosophies and motivations revealed commonalities not previously acknowledged, which allowed for a fostering of respect for the contribution each made to teacher education in the state. Relational shifts occurred as a by-product of our shared work and in time channels of communication became open and free-flowing, despite early misunderstandings about impact of the GTPA and perceived changes in work associated with it. Collaborators developed a culture of reaching out, seeking input, or checking in on a range of education-based issues, further strengthening and redefining the initial boundaries that existed as a product of legacy.

Importantly, this collaborative reimagining of boundaries and shared responsibilities for initial teacher education was underpinned and strengthened by membership with the GTPA Collective. Engagement with the Collective introduced resources, tools and processes for prioritising preservice teacher competency in ways that met

the needs of all stakeholders. Relationships developed within the Collective provided support that assisted in the crossing and redefining of boundaries, particularly in the early days of creating traction and relational shift. This chapter has shown how significant gains have been made in bringing together key decision makers and crossing pre-existing boundaries, with the university performing a critical role in facilitating new ways of working that required buy-in. While the outcomes of this work have been significant, this work is necessarily ongoing.

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Chapter 8
GTPA as Enabler: Review, Renewal and Evidence of Preservice Teachers' Assessment Practices

Joanne Dargusch, Angelina Ambrosetti, and Gillian Busch

Abstract In this chapter, we consider our use of a teaching performance assessment (TPA) as a mechanism for review and renewal, with a particular focus on the ways in which our initial teacher education (ITE) programs prepare and support preservice teachers to develop assessment skills, practices and dispositions essential in the contemporary classroom. Our discussion foregrounds the Graduate Teacher Performance Assessment Project (GTPA) as an enabler in our institution in several ways. First, its implementation enabled our professional inquiry into pedagogical and assessment practices across our ITE programs. Second, the GTPA enabled our preservice teachers to demonstrate their assessment practices in ways that are contextually responsive and that offer evidence of their professional competence. As part of this research-informed inquiry, site-level data is presented to discuss how a collaborative, collegial response to implementation provided opportunities to review how our ITE programs develop preservice teachers' assessment practices. Data in the form of preservice teachers' completed GTPAs provides evidence of their developing assessment identities, highlighting growth in both confidence and reflective practice. This chapter foregrounds the essential nature of review in ITE, and the opportunities that review can bring for strengthening our practices within our institutions and across institutions.

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8.1 Introduction

This chapter works from the position that professional renewal is built into the fabric of initial teacher education (ITE). In Australia, teacher education is framed by regular accreditation and re-accreditation processes in response to professional standards designed to articulate the knowledge, skills and attributes required of teacher education graduates (see Australian Institute for Teaching and School Leadership [AITSL], 2011; revised 2018). Within universities responsible for preparing teachers, the response to professional standards and accreditation processes is realised in contextualised ways, but with a focus on developing preservice teachers' knowledge and skills in planning and implementing the curriculum, teaching and assessment practices, and the expertise needed to provide evidence of positive impact on student learning (AITSL, 2011).

Evidence that preservice teachers have met professional standards by the end of their ITE program has routinely been drawn from assessments conducted in discrete units of work designed to develop knowledge and skills in different domains, in addition to judgements made at the school level in school-based practice experiences (sometimes referred to as practicum or professional placement). The introduction in Australia of a teaching performance assessment (TPA) represented a significant change to teacher education and how learning is evidenced.

The implementation of the Graduate Teacher Performance Assessment (GTPA®)[1] provided the opportunity for deeper insights into two different areas that were important for our institution. First, at the point of initial implementation, and in subsequent iterations, it provided an additional lens for reviewing our existing practices in delivering ITE programs. As a summative instrument designed to be administered at the end point of learning, the GTPA required preservice teachers to draw together knowledge about and skills in planning, teaching, and assessing, developed across their degree programs. The policy expectation was that these were to be called forth and synthesised through undertaking an authentic assessment that would demonstrate readiness to enter the profession. The GTPA gave us the impetus and a language to discuss our programs that built on our work to develop preservice teachers' capabilities across a program of study.

Second, the implementation of the GTPA provided an evidence base in the form of our preservice teachers' completed GTPAs. We were able to draw on these assessments to gain insights into the impact our program has on preservice teachers' learning. This notion of evidence and the building of evidence is key in this chapter. Underpinning the GTPA as enacted practice in classrooms is a focus on evidence and decision-making, with preservice teachers required to provide evidence of their planning, teaching and assessment practices and reflect on and appraise the impact of these practices on student learning (see also Chap. 2, this volume). In relation to each of these practices, the expectation is that the actions preservice teachers take

[1] Acknowledgment: The Graduate Teacher Performance Assessment (GTPA®) was created by the Institute for Learning Sciences and Teacher Education, Australian Catholic University and has been implemented in a Collective of Higher Education Institutions in Australia (www.graduatetpa.com).

are to be informed by data gathering and analysis, interpretation, and action in using evidence of student learning to inform their classroom work, working iteratively across an identified teaching sequence. The GTPA requires preservice teachers to demonstrate how they best support students to learn in the classroom. Central to this demonstration is evidence of the ways in which preservice teachers describe and relate their assessment practices to their teaching.

In this chapter, we bring together these two assessment-related ideas: the GTPA and its implementation as a framework for review and decision-making in our ITE programs; and the GTPA as evidence of preservice teachers' assessment practices, as they make decisions designed to impact on their students' learning in the classroom.

8.2 A Range of Assessment Practices

In meeting the Graduate level of the Professional Standards at the completion of their ITE, preservice teachers are required to provide evidence that they have developed a range of assessment practices that reflect school and system requirements. Further, they are to use assessment for improving learning and informing teaching, and also for summative judgement and certification purposes. It is the responsibility of teacher educators to determine that preservice teachers can gather evidence of their practice, including the ability to discern student progression and report this to a range of stakeholders (AITSL, 2015; revised 2018, 2019). It is understood that during their ITE, preservice teachers will develop the skills to use assessment "in the daily life of the classroom to support learning during teaching" (Hill & Eyers, 2016, p. 57).

Drawing on the notion of assessment as critical inquiry (Wyatt-Smith & Gunn, 2009), teachers do not *deliver* learning to students, but plan and teach diverse learners informed by data and evidence. Central to such an approach is an emphasis on data-based decision-making, drawing on knowledge and skills about curriculum, the students, the context of learning, and assessment theory to "enact the data analysis cycle" (Lai & Schildkamp, 2016, p. 77). It is essential, therefore, that teachers interact with understandings of the purposes of assessment as part of a cycle of inquiry, and the inferences that can be made from data that has, and will be, gathered (Black & Wiliam, 2018) and how those inferences will be applied to decision-making in teaching.

The gathering and analysis of assessment data is integral to teaching. Our aim is for preservice teachers at the point of transition to the profession to consider "assessment as pedagogy" (DeLuca et al., 2010, p. 36; DeLuca et al., 2012), developing the understanding that, through deliberate pedagogic practice, they will "enable students to *be better learners*" [original italics] (Wyatt-Smith & Adie, 2019, p. 2). This design of pedagogy in line with assessment practices includes setting clear goals, with opportunities for deliberate practice and effective feedback (Stobart, 2006). Central to this notion of improvement is knowledge of how to develop students' active role in the assessment process and, therefore, their own learning, with conversations between teachers and students about assessment based on a common language

(Bruniges, 2005). In this way, teachers engage in a "generative dance of knowing" with their students, informing student agency and decision-making (Willis & Cowie, 2014, p. 24, drawing on Cook & Brown, 1999) as students develop the evaluative expertise to recognise and ultimately close the gap between their actual and desired performance (Sadler, 1989, drawing on Ramaprasad, 1983).

8.3 Assessment and Initial Teacher Education

Consideration of the ways in which ITE courses prepare preservice teachers to develop the knowledge and skills required to embed these types of complex and responsive assessment practices in their teaching is a growing area of research. The literature indicates that, while there is evidence that preservice teachers' confidence in their assessment practices can be enhanced through assessment units in ITE degree programs (DeLuca & Klinger, 2010; DeLuca, et al., 2013), discrete assessment units are not common across ITE programs (DeLuca & Klinger, 2010; Hill & Eyers, 2016; Schneider & Bodensohn, 2017). There is, therefore, some concern that assessment is "not always explicitly or systematically taught" (Wyatt-Smith, 2018, p. 4). On the other hand, the efficacy of solitary assessment units within degree programs is critiqued as "not enough, on its own, to bring about the substantial changes required to prepare assessment literate teachers" (Hill et al., 2014, p. 107). Hill and Eyers (2016) proposed that teacher education in assessment should be viewed as a complex system, with wide-ranging influences including system and school context as well as personal experiences. Researchers have highlighted the importance of embedding assessment understandings across programs and in contextualised, focussed practice experiences in schools to provide preservice teachers with opportunities to consider the "complexities, challenges and possibilities for assessment integration within the educational context in which they work" (DeLuca et al., 2012, p. 7). Preservice teachers benefit from opportunities to draw together understandings developed in different learning contexts at the point of their transition to classroom teacher.

8.4 Examining Assessment Practices

As part of the "current accountability framework of public education across many parts of the world" (DeLuca et al., 2016, p. 251), professional teaching standards related to assessment have given weight to the notion of assessment literacy (employing related/convergent terms such as competency). It follows, therefore, that investigations of teachers' assessment practices have reflected this focus (Xu & Brown, 2016). A term first used by Stiggins (1991), assessment literacy is defined by Popham (2011) as "an individual's understandings of the fundamental assessment concepts and procedures deemed likely to influence educational decisions" (p. 267). Discussions of assessment capability, which foreground assessment for

learning, prioritise teacher reflection and responsiveness to assessment data used for formative purposes, with a keen emphasis on growth and improvement (Klenowski, 2009).

While investigations into the assessment practices of preservice teachers (DeLuca et al., 2016) have utilised the notion of assessment literacy, our considerations of our preservice teachers' work in response to the GTPA go beyond considering their reported knowledge and skills in relation to educational decisions. Who our preservice teachers are at this juncture in their professional development is also a research priority.

8.5 Assessment Identity

The work of Looney et al. (2018) provides a means for considering teacher assessment identity as something that exists "beyond assessment literacy", underpinned by the understanding that "who teachers are in the process of assessment is as important as what they know and are able to do" (p. 456). Teacher assessment identity encompasses teachers' assessment strategies and skills, confidence and self-efficacy, and beliefs and feelings about assessment, all elements that determine "how teachers engage in assessment work with students" (p. 457). Assessment identity is, therefore, used here as a reference point to situate the reported research. The notion of assessment identity has particular resonance in the ITE environment, where influences on practice converge. It is anticipated that preservice teachers completing ITE are developing their assessment identities, drawing variously on a range of contexts (ITE programs; school experiences, including relationships with mentor teachers and the students in their classes; personal beliefs; and experiences of assessment). We have adopted the intention of Looney et al. that consideration of assessment identity will "promote a broader perspective in research" (2018, p. 455) in relation to assessment and teacher assessment practices. We offer the following analysis of completed GTPAs as a means of considering how preservice teachers reflect on their assessment practices in the classroom.

8.6 Methods

The research presented in this chapter utilises case study methodology, is qualitative in nature and investigates several sources of data responding to the research questions (Creswell, 2007). Our research occurred in two distinct phases. The first phase focussed on the analysis of our decision-making with respect to implementation of the GTPA and how these decisions strengthened our preservice teachers' assessment practices. The second phase of the research focussed on the examination of preservice teachers' GTPA responses.

Case study is a useful methodology to answer *how* and *what* questions (Yin, 2003). The circumstance surrounding the implementation of the GTPA was bounded by systemic aspects over which we had little control, specifically those associated with ITE accreditation requirements. However, we could make decisions about how we positioned the GTPA and what we did to ensure preservice teachers would be capable of successfully completing the assessment. The key question that this research addressed is: *How can the GTPA be used as a reference point for curriculum development and program renewal to strengthen preservice teachers' assessment practices?*

In Phase One, we drew on the term *metalogue* to frame our reflection of the implementation of the GTPA. As a team who were spread across three campuses at Central Queensland University (CQU), working in undergraduate and post-graduate teacher education courses, it was important that we documented the processes we used to identify difficulties in the implementation of the GTPA in order to develop suitable solutions. The Bachelor of Education degree is delivered on seven regional campuses of The University in the state of Queensland as well as through a partnership with the Geraldton Universities Centre in the state of Western Australia. While the course is accredited by the state professional accreditation body, the Queensland College of Teachers, we needed to be responsive to such aspects as differences in curriculum and tutorial arrangements for students from different state jurisdictions, including Western Australia, Victoria and New South Wales. As a research strategy, metalogue provided a conversation structure for an identified problem (Bateson, 1972). Although the GTPA and its implementation were not necessarily seen as a problem, a key consideration was how we would ensure the GTPA could be embedded seamlessly into established programs that had been accredited[2] previously by AITSL for delivery of ITE. In this context, the implementation of the GTPA presented as an issue to be examined, and metalogue enabled "information, ideas, and even emotions that emerge in the conversation to fold back into the conversation to enable the participants to reflexively consider the problem" (Willis et al., 2018, p. 50).

To structure our conversations, we developed key questions concerning the implementation of the GTPA. These key questions provided a structure which afforded us the space to listen, share, respond and thus understand the issues from each of our perspectives. Such questions included:

1. What changes/alterations do we need to make in our programs to ensure success?
2. What concerns do we have about implementation?
3. What challenges did we encounter?
4. What was our process of review and curriculum reform?

[2] Accreditation for an initial teacher education course occurs by demonstrating evidence against nationally agreed standards and procedures. The standards and procedures address such aspects as program entry, program outcomes, program development, design and delivery, structure and content, and professional experience. Evaluation, reporting and improvement measures are also a key component of accreditation (AITSL, 2011).

Solutions to the issues emerged throughout the conversations which were then implemented. Our conversations are grouped into three periods of time. First, beginning participation in the GTPA trial; second, following the first year of the trial; and third, the second iteration of GTPA implementation.

In the second phase of the research, we gathered data from preservice teachers' GTPA submissions, where they had given permission for their submission to be used for research purposes. Additionally, the CQU Human Ethics Committee granted approval for preservice teacher responses to be used for research purposes. In particular, we focussed on Practice 4 of the GTPA, which requires preservice teachers to reflect on the planning, teaching and assessment cycle throughout a unit of work. We chose to focus on this practice as we were interested in how preservice teachers reflected on their ongoing assessment strategies and skills, with a view to gaining insights into their confidence, self-efficacy, beliefs and feelings about assessment. By examining this particular aspect of GTPAs, we could respond to the questions:

1. How do preservice teachers talk about themselves as assessors through the GTPA?
2. What assessment practices are foregrounded in preservice teachers' reflections on their planning and teaching?
3. Do preservice teachers' reflections provide evidence of their emerging assessment identities?

Using Looney et al.'s (2018) assessment identity model as an initial set of a priori codes, Bachelor of Education (Primary, Secondary, and Early Childhood; $n = 93$) completed GTPAs (Practice 4) was manually coded. Coding and recoding of data were conducted by two members of the team, which resulted in the conflation of some of the original elements of the model in response to the data, with data ultimately organised around four codes/subthemes.

Analysis of both data sets (the metalogue scripts and preservice teachers' GTPAs) was conducted using content analysis (Krippendorff, 2004) as a structured process to identify key ideas, terms and concepts, and to determine their frequency (Maier, 2018) in narrative responses, open-ended survey questions, observations, focus groups and interviews (Hsieh & Shannon, 2005). We utilised the concept of directed content analysis in using the work of Looney et al. (2018) to examine preservice teachers' insights into their emerging assessment identity and how it develops within an ITE context. In this respect, we were able to draw on the existing concepts and variables to code the scripts and preservice teachers' reflections (Hsieh & Shannon, 2005).

8.6.1 Phase 1: Findings

As previously noted, the Phase 1 findings focus on the conversations the GTPA implementation team engaged in prior to, during and after the first implementation of the GTPA in 2017 in our ITE programs. We use the three periods of time to summarise the key aspects of our conversations and decisions.

8.6.2 Beginning Participation in the GTPA Trial

As we began our participation in the GTPA trial, our conversations focussed on two key aspects: our ITE programs and the capabilities of our preservice teachers. The conversations highlighted program change and preservice teachers' awareness of such change. Key conversation points prior to beginning participation in the GTPA trial included:

1. Purposeful positioning of GTPA as a mechanism for reviewing and strengthening programs.
2. Embedding the GTPA in existing program design.
3. 'Unknowingness' regarding preservice teachers' capabilities to demonstrate each practice; ensuring our institutional reputation remained intact.
4. Ensuring preservice teachers understood the language of the GTPA.

8.6.3 Following the First Year of the Trial

Following the first year of implementation, our conversations focussed on the types of challenges we faced in embedding the GTPA into the final school-based placement (Table 8.1). The data we analysed identified two clear sets of challenges: those that our preservice teachers faced and those faced by teacher educators.

Table 8.1 Key conversation points following the first year of the trial

Key conversation points	
Challenges faced by the preservice teachers	*Challenges faced by teacher educators*
• Limited access to classroom data • Supervising teachers' lack of experience with GTPA • Concerns that they may not 'hit the mark' of the GTPA • Completion of the task when school used a preplanned unit (e.g. Queensland's Curriculum into the Classroom [C2C]) • Reflecting deeply on practices and drawing on theory to inform practice • Explicit teaching of the general capabilities • Time to write up the GTPA when undertaking an internship directly after the final assessable placement • Drawing on learning in multiple units to complete GTPA tasks	• GTPA information reaching school sites and supervising teachers • Helping preservice teachers to see that what they do while on placement is the essence of the GTPA (planning/teaching/assessing/reflecting) • 'Unknowingness' of the task: what it looked like and the standard expected—lack of exemplars to unpack the task • The importance of describing and verbalising teaching practices • Taking the focus away from the deficit in classroom data to a focus on balancing strengths and weaknesses of the students

8.6.4 Second Iteration of Implementation

Leading up to the second cycle of implementation of the GTPA in our institution, we made changes to our program to better support our preservice teachers, particularly in relation to issues surrounding their assessment practices and responding to these. We also addressed specific concerns that arose in the first implementation of the GTPA, shown in Table 8.2.

Table 8.2 Key conversation points about the second iteration of implementation

Key conversation points and changes	
Changes in professional practice units to better support preservice teachers	• Modification of timing (final professional practice placement) • Unit and program changes (e.g. reworking of an assessment task in the third professional practice placement) • Backwards mapping[a] from first and second year placements: scaffolding links between data, planning and assessment
Greater focus on the language of assessment	• Language of assessment explicitly embedded in the assessment and reporting units • More explicit focus on: the use of student data to inform planning; assessment and data language embedded into the professional practice units • Adjustment of other assessment tasks (e.g. curriculum units) made to include the use of data to inform planning
Addressing preservice teacher concerns	• Use of exemplars (sections) to model how to complete the GTPA • Preparation for the placement and the completion of the GTPA—the delivery of preplacement tutorials plus a schedule of timely 'to do' items • Alignment of the due date for the GTPA submission
Addressing school concerns	• Information to schools and mentor teachers before the placement begins so that preservice teachers and mentors can discuss the GTPA and what is needed • An information sheet distributed to schools to address how the student data will be used—privacy issues, interpretations, etc.

[a]Backwards mapping is an adapted term from Wiggins & McTighe (2005) to describe the process of designing learning that begins with the desired end result

8.6.5 Summary of Key Changes

The conversations reported above indicate how we reflexively considered the implementation of the GTPA. The language employed in the analyses indicates the shift in understanding from initially framing the GTPA as a mechanism for analysis and review of our programs, prior to its actual implementation, which generated a series of actions. Such actions included analysing the challenges that were identified after the first year of implementation, identifying and making adjustments in resources and unit materials, and foregrounding the language of assessment, particularly in relation to the use of data to inform planning, in the second iteration of the GTPA. Embedding the GTPA into our programs enabled us to make key changes to strengthen what we did, when we did it and how it would impact on our preservice teachers. As a result, we made changes to both our professional practice units and curriculum and pedagogy units. Some changes were related to professional placements, such as the timing and scheduling of the final placement that would host the GTPA, and the provision of specific information to schools. Other changes related to resource provision, such as the scheduling of tutorials and the availability of GTPA exemplars. Many of the changes, however, were at a program level, and focussed on content to be taught, when it was to be taught and how it would be taught. We ensured that authentic use of assessment data was introduced earlier in ITE programs, that the language of assessment was being used by academic staff throughout programs, and that we worked with staff to adjust assessment tasks in curriculum and pedagogy units so that preservice teachers would be utilising planning and assessment practices more broadly.

8.7 Phase 2: Results and Discussion

The analysis of preservice teachers' GTPA data gathered after the second iteration of implementation provided us with insights into whether the changes to embed assessment understandings (described above) were reflected in their work. Drawing on Looney et al.'s (2018) assessment identity model (assessment strategies and skills, confidence and self-efficacy, beliefs and feelings), initial coding of Practice 4 (Reflection) revealed that not all aspects were evident in the preservice teachers' reflections. Four main themes were assigned (including the combination of feelings and beliefs into one subtheme) and the addition of the role of teacher as assessor (Table 8.3).

Table 8.3 Data themes and subthemes

Themes	Subthemes (drawn from the data)		Bachelor of Education (primary/secondary/early childhood) $n = 93$
			Coded text chunks 457
Knowledge and skills related to assessment practice $n = 463$	1A	Strategy types	62
	1B	Data collection informing planning	36
	1C	Adjusting practice—data response	69
	1D	Data collection, designed strategies—meeting students' needs	82
	1E	Assessment purposes	80
	1F	Critical approach to strategy selection	134
Feelings/beliefs about assessment $n = 28$	2A	Feelings/beliefs-themselves/assessment	13
	2B	Feelings/beliefs-students/assessment	15
Confidence in assessment; control over their practice $n = 154$	3A	Reflection to identify strength/weakness	35
	3B	Demonstrated success	48
	3C	Demonstrated weakness	26
	3D	Recognition of opportunity to change	45
Understanding and experience of their role as a teacher assessor $n = 30$	4A	Knowledge of the role of the teacher	15
	4B	Discussion of impact	5
	4C	Discussion of reflection	10

8.7.1 Theme 1: Knowledge and Skills Related to Assessment Practice

Preservice teachers' reflections show they approached data collection methodically, demonstrating knowledge of the kinds of data available, where to obtain such data, and the purposes of this data collection for designing appropriate pedagogies. Also evident was the need to consult the Australian Curriculum and Achievement Standards (AITSL, 2015) to support focussed data collection for their planning and teaching of a sustained learning sequence. Much of the initial data were drawn from centrally stored sources (e.g. the One School data repository used in Queensland state schools). While preservice teachers drew on data such as the National Assessment Program Literacy and Numeracy (NAPLAN), Australian Council for Educational Research (ACER) General Ability Tests (AGAT), Progressive Achievement Tests in Reading (PAT-R), and Progressive Achievement Tests in Mathematics (PAT-M)[3]

[3] At the time of writing, NAPLAN tests are administered in all Australian schools in Years 3, 5, 7, and 9 (Australian Curriculum, Assessment and Reporting Authority [ACARA], n.d.); produced by the Australian Council of Educational Research, AGAT, PAT-R and PAT-M tests are available for school

and used these to inform judgements and assumptions about student readiness for particular activities, some preservice teachers discerned that such data needed to be interpreted and inferences drawn (Black & Wiliam, 2018) according to purpose and context. This is highlighted in a preservice teacher's written comment, "I need to more carefully understand the contexts and reasoning behind certain data sets" (Participant ID [PID] 53).

Preservice teachers added to centrally held data by sourcing other data relevant to teaching (subject) area and year level. This included drawing on a wide range of existing data (including individual learning plans, behaviour reports, results from previous subject-specific assessments, and diagnostic tests), gathering classroom data (students' work samples, checklists, and mentor teacher observations), and generating data through observations of the class/es, and conversations with mentor teachers. The scope of collected data points to recognition not only of the relationship between various data types, but the importance of valuing wide-ranging information in order to create an "overview of what skills and behaviour I needed to plan for" (PID 59). In this way preservice teachers provided evidence of their understanding of "fundamental assessment concepts and procedures" (Popham, 2011, p. 267) that would influence the planning of pedagogy (Wyatt-Smith & Adie, 2019).

As they enacted the data analysis cycle (Lai & Schildkamp, 2016), preservice teachers collected formative data to inform next-step teaching decisions, moving iteratively between planned and enacted teaching throughout the sequence of learning. They articulated the purposes for both formative and summative assessment, linking their on-going data-based decision-making to the need to support students to meet learning outcomes that would be assessed as part of summative assessment. Adjusting ongoing teaching based on continuous data collection during the delivery of a unit of work was identified as important, with preservice teachers noting that emerging data often resulted in the amendment of assumptions about individual and whole class capability. As one preservice teacher explained, "the initial data could never illustrate a complete picture of each child because learning is complex and forever changing as students apply new information to their existing schemas" (PID 35). Pedagogical approaches were therefore informed by analysis of collected data with a clear focus on meeting the needs of individual students (exemplified by three focus students with different needs, but also referring to cohort needs) and modifying and differentiating their pedagogical actions to ensure that students could meet identified learning outcomes.

Preservice teachers were required to reflect on the decisions that they made in planning and enacting the learning sequence. As a routine part of the teaching/learning cycle (Schön, 1987), they identified alternative pedagogical decisions and what next-step teaching would look like for their students including: establishing greater alignment between the assessment task and the pedagogical strategies selected; collecting

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use. AGAT assesses Years 2–10 students' verbal, numerical, and abstract reasoning skills; PAT-R assesses Prep-Year 10 students' reading comprehension skills, vocabulary knowledge and spelling; and PAT-M assesses Years 1–10 students' skill and understanding in a range of mathematical strands (ACER, n.d.).

more appropriate data and using this more strategically; identifying approaches to support a range of learners; and considering the impact of general capabilities on pedagogical choices. Of importance to our consideration of assessment practices here was the identified emphasis on assessment *for* and *of* learning, which were seen to be privileged in classroom practices, pointing to the need to consider how assessment *as* learning might contribute to student reflection on their learning. While most comments pertaining to a critical approach to teaching strategies focussed on what the individual preservice teacher could do, some identified the importance of collaborating with others, particularly the mentor teacher and learning support staff.

8.7.2 Theme 2: Feelings and Beliefs About Assessment

Preservice teachers' feelings and beliefs about their assessment choices and practices, and their role as teacher in supporting students' learning through assessment, were not strong features of the data. Instead, feelings about students and the need to establish relationships with students, knowing about students in a holistic way (academic, social and emotional), and creating a positive class culture to supports all students to learn and to successfully engage in assessment were foregrounded. The kind of environment identified as supportive for student learning was one "where students felt confident to ask questions, experiment with concepts and ideas and attempt work" (PID 90). Resonating in their submissions is recognition of developing richer understandings about their learners and their individual needs, particularly those who need "much more one on one support than I could provide during lessons" (PID 58). Thus, there was both a sense of knowing their learners and their needs and capabilities, and a sense of being troubled or concerned about being able to support all learners given a range of student needs. Preservice teachers recognised that, for some students, personal circumstances resulted in absences from schools, creating difficulties for sustained learning. Such circumstances seemed to result in negative self-talk about their own capabilities, pointing to their appreciation of how the context, school and family, impact student learning.

8.7.3 Theme 3: Confidence in Assessment; Control Over Practice

A developing confidence in their assessment practices was evidenced as preservice teachers worked through the learning sequence: "As I grew in confidence in the classroom… I was also able to identify and act upon 'teachable moments' to further engage students, cater to varied learning intelligences" (PID 46). Similarly, another preservice teacher identified: "I now have a more sophisticated understanding of the importance of formative assessment and collection of evidence to inform teaching

and pedagogical decisions to efficiently monitor student progress" (PID 31). Moreover, preservice teachers identified that the gathering of data itself provided them with the confidence to engage in professional conversations. For example, one preservice teacher noted "I would have been ill-informed about my students' abilities and therefore, unlikely to discuss and implement the necessary differentiation with my HOD [Head of Department]" (PID 32). In this way, the preservice teacher recognised that data gathering and analysis were key in considering differentiation.

Preservice teachers reported engaging in complex practices as they refined or altered teaching strategies in response to formative assessment, including observations and analysis of work samples. This included in-the-moment decision-making in response to data and the reflective process. Reflections included how delivered lessons were adjusted when the collected data showed that teaching practice was not being effective, to meet the varied needs of diverse learners within the class.

Importantly, our analysis showed that reflection by preservice teachers impacts future teaching practices. Features of effective practices were identified and signposted to be continued in future practice. For example, "the next time I teach this unit, I will be front-ending the assessment with students and not just with my planning" (PID 27). Also evident was a growing confidence in knowing students because of "continuous checking for understanding" (PID 62). While increasing confidence in assessment practice is an enduring theme in the reflections, opportunities for improvement and the challenges of assessment integration within the classroom context (DeLuca et al., 2012) were acknowledged. One preservice teacher noted that "while my initial data choices to inform planning were extremely helpful, I felt that my ongoing data collection was lacking… I don't believe that my collection of evidence of students' work provided me with enough scope to inform targeted and well-scaffolded next-step teaching" (PID 101). Recognising opportunities to change pedagogical choices is evidence of a growing confidence in assessment practice.

Future changes that were identified included obtaining information about students and suitable pedagogy from support staff and better ways to support classroom management. This reflected a focus on evaluating their own practices by drawing on student data: "A review of the summative assessment pieces highlighted the fact that many students were able to explain and justify their findings verbally during the conference but were unable to articulate this clearly on their poster" (PID 21). Such identification suggests a greater control over understanding of assessment practices and their purposes.

8.7.4 Theme 4: Understanding and Experience of Their Role as a Teacher Assessor

The APST codify what is expected of teachers in terms of their knowledge, practice and professional engagement and thus, from a distance, influence preservice teachers' notion of their role as a teacher (Dargusch & Charteris, 2018). Broadly, our analysis

of preservice teacher comments shows alignment with the three domains noted in the APST (AITSL, 2011) and evidence of preservice teachers' role in assessing student learning, providing feedback to students, engaging in moderation to make consistent and comparable judgements, interpreting data, and sharing student progress with students. The importance of assessment data to inform decisions is captured in the following preservice teacher comments: "ongoing data is a necessary part of the teaching and learning process. Teachers can use this data to determine the effectiveness of their teaching strategies, as well as students' learning and progress" (PID 54). Elsewhere, preservice teachers' choice of strategies showed a commitment to differentiation and "enacting many adjustments in the moment of teaching in response to an observed need or interest of the students" (PID 81).

Gaps in preservice teachers' reflections on their practices are also of interest. For example, while there were comments about their role in differentiating learning for students using appropriate strategies, the analysed submissions do not make explicit comment about differentiating for Aboriginal and Torres Strait Islander students (links to APST Standards 1.4 and 2.4), their role in engaging with parents or carers to support student learning (APST Standard 7.3), or their responsibility to report about student progress to parents/carers. This points to the recognised contextual nature of some APST.

Completion of the GTPA required that preservice teachers engage in reflection on teaching as planned and enacted. It was noted previously that self-reflection contributes to improving their practice as teachers. Our analysis suggests reflection was synthesised as thinking about what works and what does not work in the classroom and included both reflection on action and reflection in action (Schön, 1987). We also identified an explicit connection in the submissions between reflecting on practice and improving both practice and understandings of practice. Less common in the reflections are explicit and referenced links to relevant theory about reflective practice. However, theory-related understandings about assessment practices are clearly evident, for example: "once given their individual results, students could self-identify goals and areas for improvement with decimal numbers (Brookhart, 2010). By doing so, students could take responsibility for their own learning (Intervention Central, n.d.; Brookhart, 2010)" (PID 17). Drawing on key understandings about the role of the learner in assessment, this preservice teacher recognised the importance of using assessment information to assist students to identify the gap between their current and future performance and identify ways to improve (Sadler, 1989).

8.8 Conclusion

This chapter foregrounds a research-informed process of review in ITE that occurred concurrently across a large number of Australian universities, and the opportunities that the review provided for strengthening our practices within our institution. In our case, the GTPA enabled and shaped our review. Where previously our programs

were linked firmly to the APST and our understanding of our role in preparing preservice teachers to meet those standards on completion of their ITE, the GTPA required us to think further about how all the interrelated aspects of our programs worked together in preparing our preservice teachers to be classroom ready, and how that readiness would be evidenced. We drew on our professional knowledge to engage in this inquiry, as well as the collective knowledge of the GTPA group of universities to do this work and establish a process that has continued through repeated iterations of our programs. Drawing on metalogue as an organisational and analytic structure, our Phase 1 discussion above indicates that we worked with our own growing understanding of GTPA implementation, engaging in different forms of analysis across the time span of the study. The question of how to develop our preservice teachers' assessment practices remained prominent throughout our discussions. We identified the need to embed understandings about assessment earlier and more broadly in our programs, to make explicit links between research and practice, including assessment practices. We also identified the need to emphasise the use of assessment language in a range of curriculum and pedagogy units and different learning environments (such as intensive tutorials in preparation for the GTPA).

The discussion presented here picks up on the claim that the GTPA "affords preservice teachers an opportunity to express their emerging professional agency and identity in teaching cycles and scenarios" (Australian Catholic University [ACU], 2020, p. 3). Data presented in this chapter from completed GTPAs provides evidence, in particular, of preservice teachers' developing assessment identities, highlighting a growth in confidence and reflective practice as they work in complex systems and contexts (DeLuca et al, 2012). The Phase 1 analysis and development ultimately contributed to our preservice teachers' developing assessment identities and therefore converged with the insights provided in the Phase 2 data of confidence in assessment practices, as well as understanding of the role of the teacher in implementing assessment in a contextually-specific, reflective manner. These were the affordances both of the GTPA itself, and the work done within our programs to support successful completion of the GTPA. It is important, however, to note that this remains work in progress.

A key message revealed in the GTPA data was that preservice teachers engaged in collaborative professionalism in order to do the types of assessment work required of them, and they could recognise the contribution of this work to the development of their practice. The collaborative professionalism referred to by Hargreaves and O'Connor (2017) has resonance for this discussion, as preservice teachers saw the value of working with other educators to "transform teaching and learning together to work with all students" (p. ix). Readers are asked to see Chap. 6 in this volume for further discussion of collaborative professionalism in the GTPA.

Analyses of preservice teachers' completed GTPAs will continue to provide us with insights that inform our ongoing renewal of ITE programs, following on from the work done to strengthen the development of assessment practices and skills across our ITE programs. The value is in the evidence provided of the ways in which course design can ensure preservice teachers' knowledge and skills develop in complexity

over time and with increased expectations (e.g. practicums that range from observations in first year, to small group teaching, to part-lesson teaching, to whole class teaching, then to teaching, planning and assessing in later practicums). The GTPA affords us the opportunity to gather evidence of the ways in which preservice teachers engage with knowledge and skills developed over time and demonstrate these in an authentic classroom-based setting.

The use of Looney et al.'s (2018) assessment identity model provided us an opportunity to consider how our preservice teachers represent their assessment practices. While the use of Practice 4 (reflecting) as our data source meant that the focus was predominantly on reporting assessment strategies, it also provided insights into other influences on practice: feelings/beliefs, confidence and control, and understanding of role. Among these influences, confidence in assessment practices was frequently mentioned. Further exploration of the ways in which program and contextual differences potentially influence preservice teachers' assessment identify is necessary, including a focus on their experiences completing their GTPAs outside metropolitan and urban centres, in regional/remote communities. Also of interest are potential differences between the assessment identities of post-graduate students completing GTPAs (e.g. those enrolled in a Master of Teaching) and those completing 4-year undergraduate qualifications. Such an investigation could extend on the work we have discussed here, focussing ultimately on the relationship between knowledge, skills and confidence in assessment practices.

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Chapter 9
The GTPA as a Collaborative Project in Australian Initial Teacher Education: A Cultural-Historical Activity Theory Perspective

Joce Nuttall

Abstract This chapter draws on the preceding chapters in Part 2 of this volume to consider the Graduate Teacher Performance Assessment (GTPA) task and its implementation from the perspective of cultural-historical activity theory. Concepts of *re-mediation* and *motive object of activity* are used to explain how the GTPA and the work of the GTPA Collective have changed practices of teacher education in Australia and fostered the agency of participating teacher educators. Blunden's concept of *collaborative projects* as the appropriate unit of analysis for understanding the development of human practices is employed to show how the GTPA has re-mediated initial teacher education practice across a range of scales. The chapter concludes with a call to build further on recent developments that reveal the potential of the GTPA for preservice teachers to experience the assessment as a collaborative project.

9.1 Introduction

Since 2015, Australian providers of initial teacher education (ITE) have been required to include a teaching performance assessment (TPA) in the final year of preservice teacher education programs (Australian Institute for Teaching and School Leadership [AITSL], 2015; revised 2018, 2019). These TPAs are envisaged in teacher education policy as having two purposes: first, to ensure graduates of ITE demonstrate the Graduate level of the Australian Professional Standards for Teachers (APST; AITSL, 2011, revised 2018) and are therefore 'classroom ready' (Craven et al., 2014); and second, to provide an evidentiary basis upon which teacher education programs can evaluate and re-design their curriculum offerings to educate preservice teachers to meet the Graduate standards. While such an initiative appears both desirable and straightforward, as the chapters in this volume show implementation of a TPA is

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a complex undertaking, requiring co-ordinated psychological and practical activity across a range of stakeholders whose interests are not necessarily aligned.

This chapter aims to make sense of this complexity through the conceptual framework of cultural-historical activity theory (CHAT; Engeström, 2014). The chapter responds to a question that has intrigued me throughout the development of the Graduate Teacher Performance Assessment (GTPA®)[1]: What exactly does the GTPA *do* that is *not already being done* in initial teacher education? In the context of this volume, I have re-cast this question as: *How might we understand the nature of the GTPA, as evidenced by the accounts of its implementation by teacher educators in this book?* In other words, my empirical method is to treat the preceding chapters (Chaps. 5–8, in particular) as data upon which to build a (partial and necessarily tentative) focal theory about the nature and impact of the GTPA for ITE in Australia. The outcome of this approach is an argument for the GTPA as a multi-scalar *collaborative project* (Blunden, 2014), characterised by an authoritative reclamation of the agency of Australian teacher educators.

I begin by locating myself within conversations about the development of the GTPA at the Australian Catholic University (ACU) and the work of the GTPA Collective, led by researchers in the Institute for Learning Sciences and Teacher Education (ILSTE). I then turn to the conceptual framework I bring to addressing my research question. While there are a number of frameworks that might lend themselves to an analysis of the chapters (Critical Discourse Analysis being an obvious candidate), the conceptual framework I use here is cultural-historical activity theory (CHAT). My use of CHAT in (this and other) research endeavours is anchored in a commitment to interrogating and intervening in the historically accumulated practices of teaching and teacher education, to better understand how teacher education can effect transformation in the practices of educators. Here, I employ three CHAT concepts in particular: *mediation*, *re-mediation*, and *motive object of activity*, which I explain before turning to my main line of argument regarding how the GTPA functions as a collaborative project across a range of scales to both enable and reflect teacher educator agency.

9.2 My Engagement in the GTPA Collective

Since the earliest stages of development of the GTPA, led by ILSTE, I have enjoyed a privileged status within the Collective. My role has been as an observer, sometime hands-on participant (in national workshops, occasional online meetings of the Collective, and some analytic activities to understand how the GTPA 'works'), and as a contributor to occasional reflective dialogues with ILSTE colleagues leading the work. However, unlike other members of the Collective, I have had no responsibility

[1] Acknowledgment: The Graduate Teacher Performance Assessment (GTPA®) was created by the Institute for Learning Sciences and Teacher Education, Australian Catholic University and has been implemented in a Collective of Higher Education Institutions in Australia (www.graduatetpa.com).

for its direct design and implementation with preservice teachers, its negotiation within university systems and curricula, and/or the educative processes contributed to the Collective by ILSTE colleagues. This unique positioning has allowed me to develop both emic and etic perspectives on the trial and implementation of the GTPA. It has also allowed me to take note of emerging phenomena within the Collective, some of which are captured in Part 2 of this book. This chapter draws, therefore, both on these chapters and my own (inevitably subjective and incomplete) musings from 2015 to 2020.

9.3 CHAT as an Analytic Framework for Interrogating the GTPA as a Form of Practice

From the outset, the nature of practice has been central to my understandings of the GTPA. In this volume, we find the GTPA described as a discrete assessment requirement anchored in preservice practice (GTPA as 'task') and as a new set of practices in ITE (GTPA as 'teacher education labour processes'). Initial teacher education involves multiple sites of practice within and outside universities (the inclusion of 'teaching practice' in the ITE curriculum is a giveaway), yet concepts of practice have not always been prominent in its imaginary. Historically, teacher education researchers have taken up a wide range of concepts and lines of inquiry in their attempts to explain the formation of graduate teachers (Murray et al., 2008). These include concepts of reflection, identity, and motivation, as well as curriculum-specific understandings in subject domains such as English and mathematics. Many of these investigations have been driven by a desire to respond to technical-rational assumptions about initial teacher education found in many policy frameworks (Nolan & Tupper, 2019) and/or overcome the 'theory–practice divide' that has long bedevilled discourses of ITE (Anderson & Freebody, 2012). Yet, from my point of view, concepts such as identity and reflection have often been taken up in teacher education in ways that fall into the same briar patch as the theory–practice divide: they continue to locate the locus for learning about teaching inside the head of the preservice teacher, rather than within socially situated, artefact mediated practice.

Cultural-historical activity theory (CHAT) is a theory of psychological development anchored in examination of human social practices, particularly (but not exclusively) in workplaces. It pays attention to how people work together to get things done to maintain human life-worlds. Within CHAT, practice is always *mediated* by cultural tools (concepts and material artefacts) through the semiotic nature of these tools: concepts and artefacts are rich with historically derived meanings that can be taken up to design and make sense of practices. These practices can also be developed (*re-mediated*) through deliberate re-design of cultural tools to change their meanings or by taking up alternative meanings (e.g. when recent school leavers enter ITE and begin to construct alternative meanings about the familiar cultural tools of schooling from a teacher's perspective).

According to a CHAT analysis, practices change and develop when contradictory aspects of practice that hinder the achievement of *motive objects of activity* (the aims or tasks that are the focus of practice) are identified and worked upon by people working together within or across work sites and systems. These work sites and systems can range in scale, yet all are characterised by norms of speech and action that distinguish one field of practice from another. The motive object of activity of initial teacher education programs could be characterised, for example, as the desire to produce graduates who have internalised the norms of teaching, encapsulated in the APST and other codifications such as practicum reports, and who can then externalise these norms appropriately in school settings. This externalisation may conform to historically persistent norms of practice or, where re-mediation has occurred or is ongoing, practices may differ from historical norms. In this way, re-mediation of practice to achieve desired objects of activity is both reflective of *and* constitutive of human agency.

The move towards TPAs in Australia was in response to a recommendation in the Teacher Education Ministerial Advisory Group (TEMAG) report (Craven et al., 2014). TPAs offer a response to a perceived hindrance to high-quality teaching as an outcome of teacher education, viz. the conviction that, despite the authorisation to teach conferred by their graduation and provisional registration, Australia's teacher education graduates are not sufficiently 'classroom ready'. Through the lever of mandatory accreditation of ITE programs (AITSL, 2015) the requirement to develop a new cultural tool—a final-year TPA—was imposed upon Australia's ITE programs as (in CHAT terms) a new mediational means for the development of graduate teachers.

9.4 The GTPA as Mediational and Re-mediational Means for Preservice Teacher and Teacher Educator Practice

New cultural tools long to be populated with meaning, but in the early days of developing a new tool, these meanings can be unstable, contradictory, and vulnerable to the meanings historically attributed to similar or predecessor tools. This was the case with the GTPA. At the outset of the development of the GTPA, I heard many teacher educators (both within and outside the GTPA Collective) claim that introduction of a TPA would be a straightforward exercise, since most ITE programs already had some kind of capstone task (such as requiring preservice teachers to submit a portfolio of their practicum work samples aligned to the APST). By populating the new cultural tool with meanings transferred from existing cultural tools, practices could remain largely unchanged in the assessment of final-year preservice teachers' ability to teach.

This transfer of existing meanings was not the vision of TEMAG (Craven et al., 2014). As Haynes and Smith relate (Chap. 16, this volume), the TPA is part of a suite of tools that aim to intervene in the existing norms of ITE in Australia. Australia's

politicians have invested these tools with meanings connected to raising the quality of teaching in the interests of strategically improving Australia's global economic competitiveness and investments [notably since the *Economics of Teacher Quality* conference held at Australian National University in 2007 (for example, Ingvarson & Rowe, 2007); more recently in a Department of Foreign Affairs and Trade (DFAT) review of the relationship between teacher quality, student outcomes, and overseas aid investment (Naylor & Sayed, 2014)]. These meanings are also historically derived, in part from the long anti-democratic project of attacks on universal schooling. This has particularly been the case in the US (McLean, 2017), and Doyle et al. (Chap. 5) explain the way critiques of the edTPA in the US preceded the development of TPAs in Australia, including the fear that they would "steer the work of teacher educators in managerial directions" (para. 4).

Such meanings continue to be roundly rejected by many academics, teachers, and school leaders in Australia and elsewhere. For example, Parks and Morrison (Chap. 7) note the way important stakeholders quickly attached meanings of this type to the GTPA. School personnel in their jurisdiction initially saw the GTPA "calling into question the competency and professional judgement of schools and experienced teachers, and excluding them from the teacher preparation process" (para. 15). Many such tensions arise in systems of practice when new cultural tools are 'parachuted in' from other practice systems, followed by a rush to attribute pre-existing meanings to their use. There is a long history of these kinds of policy disruptions in contemporary teaching and teacher education, often enforced by levers such as funding or, in the case of TPAs, accreditation. An urgent priority for the GTPA Collective at the outset was, therefore, to establish new meanings for the GTPA as a cultural tool with potential to re-mediate the practices of preservice teachers, teaching practice sites, and teacher educators.

The meanings that inhere in the GTPA for preservice teachers are not the focus of this chapter; suffice to say they are closely linked to the achievement of the relevant APST, including concepts and practices of planning, assessment, and moderation (see Chaps. 2 and 3). However, I did observe how the GTPA increased expectations of preservice teachers in one emphatic way, through a shift in meaning in relation to capstone tasks of this type: the GTPA demands that preservice teachers present a *synthesis* of their claims about their teaching (i.e. they provide evidence to think about, *and simultaneously integrate*, multiple dimensions of teaching practice, based on data they generated in the classroom). This differs from the teleological meanings often attached to requirements for evidence of preservice teachers' reflective practice (e.g. responses to the question 'What will I do differently next time?').

Rather, my focus in this chapter is the way the GTPA both demanded and constructed new meanings in the mediation of teacher educators' practices. A clear example, noted by Doyle et al. (Chap. 5), is the way *fidelity* became a central concept attached to the GTPA's re-mediation of teacher educators' practices. For the first time in the history of Australian teacher education, there was a requirement on ITE to engender confidence in the comparability of assessment judgements not just within single institutions but *across diverse practice sites* of ITE. How could such a complex outcome be achieved with fidelity?

Haynes and Smith (Chap. 16) describe the infrastructure needed to capture these assessment judgements and report them back to the Collective. They use the concept of *performance trajectory* in a way that situates the GTPA within a core commitment of teacher educators: that preservice teachers who enter our universities as nascent teachers will be able to teach confidently and competently by the time they graduate. This commitment is underpinned by an assumption of *causality*; what teacher educators (and their in-school colleagues) do causes preservice teachers to change, and develop new and appropriate practices of teaching. This assumption of causality in ITE echoes the synthesis demanded of preservice teachers by the GTPA, described above, whereby preservice teachers are required to articulate the complex relationships between their assessment practices, pedagogical judgements, subsequent actions, and the learning of classroom students (or the learning of preservice teachers, in the case of teacher educators). Other concepts that came to inhere in the GTPA are also described in the case examples in this volume. Dargusch et al. (Chap. 8), for example, explore the GTPA as an *enabler* of capable preservice teacher and teacher educator practice, while Lugg et al. (Chap. 6) argue for the GTPA as a site of resistance against the concept of teacher quality, arguing instead for *teaching quality.*

By contrast, Heck (Chap. 4) portrays an instructive counterpoint to the meanings ascribed to ITE in the way it is conceived through the GTPA. The data Heck presents portrays a political fetish with entry standards and recruitment of the 'top students' into ITE (Goss et al., 2019). The unspoken assumption here is that, if the 'brightest and best' can be recruited to enter ITE, the impact of Australia's (presumed ineffective) ITE programs will at least be minimised; in other words, the call is for a return to 'teacher quality' rather than 'teaching quality'. Heck ends on an optimistic note, arguing that future media representations should draw on research that shows the complexity of teacher quality. As the chapters in this volume show, instead of drawing on broad (and rather inchoate) concepts of quality, the GTPA has been populated with concepts such as *fidelity, accountability, trajectory, identity*, and *capability* within and across diverse sites of ITE. I count this as a major act of resistance to the meanings that mass media, policymakers, and (sometimes) schools have attempted to impose on ITE. So how was such an audacious move achieved?

9.5 The GTPA as a Multi-scalar Collaborative Project

My analysis of the chapters in this volume suggests that the GTPA was both the catalyst for, and enabler of (c.f. Dargusch et al., Chap. 8), multiple *collaborative projects* that occurred simultaneously and at a range of scales. Note I am using the term 'collaborative project' here in relation to its distinctive meaning within activity theory articulated by Blunden (2014). Blunden views collaborative projects as collective systems of action made coherent through mediation by a shared *motive object of activity*—the aims or tasks that draw practice forward in pursuit of desired outcomes—in addition to their mediation by cultural tools, divisions of labour, and

other norms of practice. Collaborative projects may be motivated by practical, political, or ideological objects, and frequently seek to be deliberately transformative. Successful projects that begin with the pursuit of radical transformation can end in institutionalisation; a recent example in Australia is the campaign for marriage equality, which began in the localised collaborative projects of activists and ended in national legislation. As Blunden explains, "the project inheres in the artefact-mediated actions, norms, rules and symbols flowering from the project's self-concept and underlying the actions which constitute the project" (2014, p. 9).

In the section of the chapter that follows, I consider the GTPA as a collaborative project across a range of scales—individual, intra-institutional, multi-institutional, and at a national systems level—before returning to my central claim about the GTPA as a site for reclamation of teacher educator agency.

9.6 The GTPA as a Collaborative Project for Preservice Teachers

A submitted GTPA is the property of an individual preservice teacher and is assessed on an individual basis. Yet it is impossible for a GTPA to be generated exclusively out of the work of an individual. Every GTPA contains traces of the voices of the preservice teacher, the students they have taught, sometimes of their supervising (mentor) teacher, and even of other teachers in the placement school. At a more inchoate level, GTPAs can also contain traces of conversations with university lecturers, exchanges with other preservice teachers, and engagement across space and time with the voices of theorists and pedagogues, some of whom are long dead. In this sense, an individual GTPA is an outcome of collaboration. But is the GTPA therefore a collaborative *project* for preservice teachers?

In the initial phases of GTPA development as a high-stakes complex performance assessment of graduate readiness to enter the profession, I argue this was not the case, at least by the definition I am using here. According to Holodynski (2014), collaborative projects.

> …take up dissatisfaction with an existing (professional) practice. This is the case for many projects within the institutional contexts of kindergartens, schools and universities where the institutional learning and teaching have been judged unproductive and inappropriate. This dissatisfaction makes the persons affected (teachers, students, parents) receptive to a search for innovative and successful teaching and learning strategies and their testing. (p. 354)

While there is ample evidence for dissatisfaction with ITE as an originating force for the GTPA, there is no compelling evidence that preservice teachers sought out the GTPA as a collaborative project *on the basis of dissatisfaction with their ITE programs*. Rather, it was a task imposed upon them in the context of higher education assessment. Also, it is impossible to know what the motives objects of a *specific* preservice teacher might be and whether these motive objects of activity are *socially shared* as they undertake their GTPA. So, I think that it is reasonable to argue that the

GTPA in its early instantiations, at least at the level of individual preservice teachers, was a *polyvocal artefact* but not necessarily a collaborative project. I return to this point at the end of the chapter to consider whether this is still the case, given recent shifts in the implementation of the GTPA prompted by the coronavirus pandemic described in Provocation 5 of this volume.

9.7 The GTPA as a Collaborative Project Within Higher Education Institutions

There is ample evidence in this volume of the way the development and implementation of the GTPA within ITE programs has met the minimal definition for a collaborative project. Dargusch et al. (Chap. 8), for example, describe the development of preservice teachers' assessment practices through an account of intra-institutional ITE practice. As they explain, "the first phase [of the investigation they report] focused on the analysis of *our* [emphasis added] decision making with respect to implementation of the GTPA" (para. 13). Their account shows how processes of decision making were mediated by shared meanings anchored in the GTPA, notably the concept of *assessment identity* but also concepts of *institutional reputation*, *preservice teacher capability*, and the GTPA as a site of convergence for elements of ITE *curriculum* (see Table 8.3).

Doyle et al. (Chap. 5) also provide an account of an intra-institutional collaborative project, focused on *collaborative professionalism* as a motive object of activity, mediated by the GTPA. An important insight from their project is the way divisions of labour (who does what, and in what hierarchy of power and authority) are also critical to collaborative projects. They report the perspectives of sessional (i.e. non-tenured) teacher educators in GTPA implementation alongside those of tenured teacher educators (implying, *inter alia*, questions about the possibilities for successful policy intervention at the many teacher education sites where there is a heavy reliance on sessional labour). Chapter 5 also touches on the way in which different collaborative projects nested within single institutions (such as the work of ITE academics in overlap with the work of professional (administrative) staff responsible for the management of practicum placements) can converge in the pursuit of a common object; in this case, the shared object is the provision of teaching practice placements that afford preservice teachers the opportunity to complete a successful GTPA. However, as almost every chapter in this volume reflects, it is the *inter-institutional* nature of how the GTPA was developed and is sustained that is its most compelling feature.

9.8 The GTPA as a Collaborative Project Across Multiple Higher Education Institutions

The GTPA Collective began with two teacher education institutions in a pilot of the GTPA in 2016; at the time of writing, the Collective includes 18 institutions, almost half of the universities offering ITE in Australia. Adie and Wyatt-Smith (Chap. 2) provide a description of how the individual GTPA submissions of preservice teachers form the material means for collaboration across the Collective to ensure national consistency of teacher educator judgements against the Graduate Standard of the APST (AITSL, 2011). As Lugg et al. (Chap. 6) explain, "a unique characteristic of the GTPA is the process of moderation across the collective institutions to ensure shared interpretations of the GTPA assessment criteria" (para. 6). But can such a large collective work process necessarily meet the definition of a collaborative project, as outlined earlier?

Following Holodynski's requirement for a "socially shared personal sense of the project's goals" (2014, p. 355), I think the answer must be 'Yes'. My reflections on the Collective's regular face-to-face workshops and monthly meetings via Zoom™ suggest these were primarily a site for the negotiation of shared meanings to mediate the work of teacher educators in achieving a shared motive object of activity. These meanings were initially motivated by the desire to implement the GTPA as an *artefact* (i.e. a material instantiation) of teacher educator and preservice teacher practice. However, new meanings do not precede the construction of new artefacts; these develop simultaneously and dialectically through exploration and use. So, as questions were asked about seemingly pragmatic aspects of the GTPA (What should be the maximum permitted page length? What relative weightings should be given to its various components?), these temporary practice problems were actually the catalyst for anchoring shared meanings of concepts such as *moderation* (see Chaps. 3 and 6), *synthesis*, *identity* (Chap. 8), *fidelity* (Chap. 5) and *trajectory* (Chap. 16), within both the GTPA as a task for preservice teachers and the GTPA as a new form of teacher education practice.

9.9 The GTPA as a Collaborative Project at a National Systems Scale

Simultaneous with these developments, members of the Collective were inevitably also interacting with other stakeholders in Australian ITE who were not privy to these practice conversations. Schools, universities, teacher education programs, teacher unions, curriculum authorities, and teacher regulatory bodies may reasonably be considered large-scale collaborative projects, but they do not necessarily share the same motive object of activity (notwithstanding they may share a desired outcome of high-quality education for all Australian students). The imposition of TPAs in

Australia demanded that these disparate motives be brought into sufficient alignment to allow preservice teachers to successfully undertake a GTPA accompanied by national-level confidence in the assessment of their work. Wyatt-Smith and Adie (Chap. 1) touch on some of the concepts that have attached themselves to political concerns about ITE internationally, such as *impact*, *accountability*, *competence*, *readiness*, and *compliance*, each of which had major implications for the development of a GTPA that would be generative for preservice teachers, build public and political confidence in the work of ITE, and respect the accumulated expertise of teacher educators (see also Heck, Chap. 4). This required that the negotiation of meanings in relation to the GTPA would not only establish new meanings but renegotiate some sedimented and unhelpful meanings of historically contested concepts such as accountability.

The initial difficulties reported by Parks and Morrison (Chap. 7), discussed earlier in this chapter, reveal the way this re-negotiation of outdated meanings attributed to the GTPA (i.e. its role in *re-mediating* ITE practice) was ultimately enabled by the convergence of collaborative projects with salience for ITE within and across jurisdictions. Parks and Morrison adopt the concept of the GTPA as a 'boundary object' to theorise how this was achieved, and argue that meanings inhering in the GTPA developed as it encountered 'crossing points' between related collaborative projects. The real significance of their chapter, however, is the way it shows how the work of universities, teacher education programs, schools, and teacher registration authorities can be brought into productive alignment if they share a sufficiently powerful motive object of activity; Lugg et al. (Chap. 6) call this a "common purpose" (para. 44). In the case of Tasmania, this motive was the need to alter a persistent historical trajectory of teacher shortages. On the national scale, Wyatt-Smith and Adie (Chap. 1) relate that.

> Since the introduction of competence assessment in Australian teacher education, we have considered ourselves to be working in a discovery project that has required ongoing collaboration across the country. It has also required ongoing and significant learning by all parties, including teacher educators, preservice teachers, policy personnel, school personnel, and a multidisciplinary team of researchers and methodologists. (Wyatt-Smith and Adie, para. 17)

To summarise, I have argued that GTPA implementation was not only the catalyst for the formation and convergence of new and existing collaborative projects, but that the GTPA itself has been a potent artefact in the negotiation of new meanings in relation to ITE practice in Australia. Such collaborative projects—according to Blunden (2014)—provide the appropriate unit of analysis for empirical and theoretical work in understanding human practices. It is worth quoting Blunden at length here, with the suggestion that the reader substitute 'the GTPA' for 'the project' throughout the following:

> In the course of their development projects objectify themselves, and there are three aspects to this objectification: *symbolic, instrumental* and *practical.* Firstly, the moment someone first communicates the concept of the project it is given a name or symbolically represented in some other way, after which the word or symbol [for example, the GTPA as a noun] functions as a focus for actions. The word eventually enters the language and acquires nuances and meanings through the development of the project and its interaction with other projects and

> institutions. Secondly, the project may be objectified by the invention and production of some new instrument or by the construction of material artifacts [e.g. the GTPA as an artefact] which facilitate or constrain actions in line with the project and facilitate its integration into the life of a community. … Finally, and most important is practical objectification: once the project achieves relatively permanent changes in the social practices of a community, the project transforms from social movement into customary and routinised practices – an institution. In this instance, the word may be taken as referencing the form of practice in which the project has been given practical objectification and normalised [for example, the GTPA as ITE practice]. (p. 10)

The chapters in this volume capture various aspects of the GTPA as a collaborative project as it has progressed through these three phases. However, no project of this scale and significance can progress through these stages without significant personal sense-making and emotional commitment on the part of participants (Holodynski, 2014). In the next section of this chapter, I return to my claim that the GTPA has played a critical role in achieving a significant motive object of activity for the GTPA Collective: to reclaim the agency of the participating teacher educators.

9.10 The GTPA as a Site for Reclamation of Teacher Educator Agency

Several of the chapters in this volume summarise the international political and bureaucratic preoccupation with ITE in recent decades. Consequential policy reforms, particularly when combined with reform of research management and metrics in universities in recent years and with negative media portrayals (see Heck, Chap. 4), have been dispiriting for many teacher education academics (Zipin & Nuttall, 2016). Yet the chapters in this volume suggest the development and implementation of the GTPA in Australia has had the opposite effect for many of the teacher educators who participated in the Collective. There is evidence the GTPA has been the catalyst for a renewal of teacher educator agency, both with respect to themselves as educators and with respect to significant stakeholders. Here I explain how such a repositioning might be understood from a CHAT perspective.

In keeping with the CHAT concepts already employed in this chapter, I argue the experience of increased agency reported by teacher educators in the Collective relies, first, on re-mediation by cultural tools and, second, on opportunities to take an authoritative stance with respect to motive objects of activity. In relation to cultural tools, as Parks and Morrison explain, "importantly, the GTPA Collective provided *critical resources, perspectives and contributions* [emphasis added] to teacher educators in order to initiate the relational work required to implement the teaching performance assessment within the complex and contested teaching and learning contexts" (Chap. 7, para. 19). These resources could then be mobilised in these relational work contexts to support an authoritative stance on the part of teacher educators. Doyle et al. (Chap. 5) explain the nature of this opportunity in relation to the fidelity of implementation of the GTPA:

> As such, the teacher educators' careful development of the academic program is seen as critical to steering the collective initiative at the university, so as to avoid a collision between the four key sites of practice (the ITE academic program, the school-based professional experience program, the requirements of a TPA, and the assessment policy of the university). (para. 15)

I read this quote from Doyle et al. as an example of how key concepts inhering in the GTPA (in this case, *fidelity of implementation*) provided the authoritative basis for negotiations with significant adjacent and overlapping collaborative projects, such as teacher registration authorities. In these negotiations, teacher educators became "critical to steering the collective initiative at the university" (para. 15). Sannino and Ellis (2015) identify the importance of collective creativity in responding to social challenges, but collective creativity (which I equate with Doyle et al.'s "collective initiative") can only be fully realised where there are powerful motive objects of activity and meaningful cultural tools available to mediate and re-mediate collective work. A core principle of CHAT is that by changing cultural tools, humans can *change themselves from the outside* (Daniels, 2004) because their practice is re-mediated by the changed tool. Lugg et al. (Chap. 6) report that "our experiences of working in the GTPA Collective highlighted that engagement with developing, refining and implementing the instrument has enhanced our professional development as teacher educators" (para. 31). This reference to the development of the authors as teacher educators speaks directly to the way re-mediation of practice necessarily also changes the participants in the practice.

9.11 Conclusion

In this chapter I have argued, on the basis of the chapters in Part 2 of this volume, that the GTPA not only constitutes a collaborative project in activity-theoretical terms, but has fostered related collaborative projects that overlap locally as well as on a national scale. In line with a CHAT theorisation, I have argued that collaborative projects can only be considered as such if they articulate *shared motive objects of activity* and strive to populate critical artefacts (the GTPA in this case) with meanings that can *mediate* and *re-mediate* the practices of members of the collaborative project. An effect of this re-mediation, as related by members of the GTPA Collective, has been to enhance their agency as teacher educators through increased capacity to take an authoritative stance in relation to the development of graduate teachers.

In keeping with the provocative nature of Part 3 of this volume, I return to a provocation of my own, foreshadowed in my earlier claim that, for preservice teachers, the GTPA task did not meet the minimal definition for a collaborative project in its initial instantiations. My provocation was to suggest that, irrespective of the rich collaborations underpinning each GTPA, since the GTPA is submitted and assessed on an individual basis, it does not meet Blunden's (2014) minimal definition for a collaborative project *at the level of the preservice teacher*.

This may appear to be something of an ultra-fine distinction between preservice teacher's practices of constructing their GTPA (which are necessarily collaborative) and their motive object of activity (which can only be individual, since they are required to submit the assessment on an individual basis). However, this distinction is not peculiar to the GTPA. Judgement of preservice teacher work at the individual level is a structural feature of ITE, undergirded by the responsibilisation of individual teachers that is characteristic of policy and the APST. However, this practice aligns poorly with *the collaborative demands of actual teaching in contemporary schools*. How, then, might the GTPA be conceived as a truly collaborative project for preservice teachers, one that not only reflects their *capacity* to collaborate (the GTPA task already allows them to do this) but is itself an *enactment* of collaboration in its preparation and submission, so that their experience is more authentically like the experience of teaching as a collaborative project?

Provocation 5 of this volume describes one way forward. Rapid adjustments in the implementation of the GTPA due to school closures were necessary in response to the crisis in teaching practice placements imposed by the COVID-19 pandemic, which began in Australia on 25 January 2020. This crisis represented more than a dissatisfaction with present circumstances (Holodynski, 2014). COVID-19 demanded an overthrow of the most basic assumption about how preservice teachers demonstrate 'classroom readiness': that it can only be done in a 'real' classroom. A central feature of these adjustments was the creation of online 'data scenarios' that represented the demands of in-school GTPAs. The salient point about this approach, in the context of the present chapter, is the way these scenarios *made available to preservice teachers the work of their peers* as the basis for these representations. I argue this marks a watershed moment in the education of graduate teachers. While some preservice teachers have, no doubt, had access to the work of their peers before, no teacher education project has enabled distributed peer-to-peer collaboration on such a scale or in such a systematic way. In activity-theoretical terms, this strategy represents distributed cognition on a wide scale across a single group of participants in the GTPA with a single shared motive object of activity: the successful completion of the GTPA task as a *collaborative project* by preservice teachers as they contribute to the ongoing life of the teaching profession.

In this chapter I have argued for the way the GTPA is overturning the long historical commitment to the individual as the appropriate unit of analysis for the investigation of human development, historically promulgated by developmental psychology. I have presented an alternative view, drawing on CHAT and Blunden's (2014) conceptualisation of collaborative projects as the most meaningful way to understand the development of human practices. There is already evidence, presented in this volume, from the GTPA Collective that multiply-mediated, object-oriented collaboration can transform the practices of individuals and systems alike in ITE as an aspect of ongoing human practice.

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Part III
A Suite of Provocations

Chapter 10
Provocation 1: Towards More Radical Assessment Systems

Christopher DeLuca

Abstract In Provocation 1, DeLuca proposes that the COVID-19 pandemic has provided the opportunity to pause and experience deep reflexivity to reimagine a fundamental new future for education. He suggests that in this re-imagining, the focus should turn to well-being, connections and understanding of self. DeLuca notes the imperative of socially orientated curriculum and assessment in which students work collaboratively, responding to challenge and building compassion. He asks, "How can assessment support a curriculum of care?". His call is to empower teachers to imagine new assessment possibilities by radically rethinking assessment theories and practices. He suggests education systems need to provide opportunities for teachers' professional learning that will equip them with the capacity to experiment and think radically to innovate assessment and to respond to the social consequences of assessments that consider students' well-being.

Last year, I attended a faculty research summit where one of my colleagues presented her work on education's response to the melting arctic polar ice caps and the global climate emergency. She poignantly argued that it was time for radical change in education: time to rethink our historic patterns of relating to one another and the planet, time to redesign curriculum to support collective sustainability, and time for radical truth about the state and outcomes of our educational systems. That was before COVID-19, before George Floyd, and before the hyper-partisan 2020 US election, events which have only intensified calls for change—often, it seems—at warp speed. And yet, as I sat and listened in that not-too-distant 'before time', I could not help feeling as though much educational assessment research fell painfully short of addressing the pressing challenges before us; that much of our research reinforced the status quo, feeding past architectures of education and perpetuating systemic structures of reward, exclusion, and inequity. Global calls for change affect all sectors, but to echo my colleague, they are particularly pointed at education, for education is

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the site where radical truth has the capacity to be translated into radical hope, radical imagining, and radical teaching (McGregor et al., 2020).

As I write this provocation, we are in the second wave of the COVID-19 pandemic. Schools are, once again, threatening to close, with several cities in my corner of the world entering a period of heightened restrictions and quarantine measures. While the world slows, and school rhythms change their pace and space of learning, many fear that students will lose precious learning time and equivalent gains in achievement. On the contrary, this global pause provides an opportunity for deep reflexivity. I deliberately use the term *reflexivity* here, rather than *reflection*, because reflexivity refers to the action of turning back on oneself, to invert experience onto understanding and reconsider where we now stand: to engage in radical truth-telling. The challenge, however, with reflexivity is our capacity for self-critique (Lather, 1993); our capacity to be products of the education system and yet, simultaneously, critical of it. For reflexivity to work effectively, we must position ourselves both *within* and *outside* the system. But does COVID-19 not allow precisely for this positionality?

If we take on the opportunity afforded to us and use this time for critical reflexivity—for what could be the most important learning yet—we can reimagine a radical new future for education. We can take a careful step forward, mindful of the very clear and present dangers: student wellness, community resilience and sustainability, machine–human interactions, and rising inequities and gaps in achievement across marginalised groups. Each of these dangers, and others, has been well documented and marked in relation to the short- and long-term outcomes of COVID-19 (Schleicher, 2020; United Nations, 2020), and arguably as outcomes of our pre-COVID educational system too. Strikingly, underpinning all of these dangers is an unequivocal priority to focus on human beings and their wellness, connection, and understanding of self, other, community, and environment. While disciplinary content may remain important in a future vision of education, what COVID-19 and other global challenges have called to our attention is that our education system must now focus on human wellness relationships: we must teach our children how to care for themselves, each other, and our world.

In my view, our education systems must pivot curriculum *and assessment* to enhance it's focus on collective well-being and care; to purposefully engage socially oriented curriculum and assessment. We must ask ourselves: How can assessment support a curriculum of care? Such a socially oriented curriculum would require students to engage actively with projects that build compassion and empathy, as well as critical, historical and sustainable thinking capacities. This curricular focus emphasises learning by working together through collaboration with others and communities, local and global, to effect social and environmental changes—to learn to care for one another, ourselves, and the world, and to collectively work for a common good. Such a vision aligns squarely with the OECD's *Future of Education and Skills: Education 2030* that articulates a commitment to "[help] every learner develop as a whole person, fulfil his or her potential and help shape a shared future built on the well-being of individuals, communities and the planet" (2018, p. 3). The challenge is that implementing this vision of education requires a dramatic shift in the widely

used test-based assessment practices and large-scale accountability mechanisms that have gripped many educational systems.

Assessment scholars are called to action. If we are to take seriously the challenge presented before us, then we must rethink assessment theories to yield practices that truly embrace a socially oriented curriculum. As assessments amplify our priorities, the continued reliance on individualistic test-based assessment systems, which remain profuse across countries, will forever undermine the required collective orientation necessary to support our sustainable future. More dangerous, it signals to students and societies that individual gains are the best measures of success in our societies, rather than collective well-being, collective thinking, or collective work. This signal, in my view, points in the wrong direction for our future goals.

As the principal driver of classroom activities, there remains little hope for reforms in pedagogy, curriculum, or learning unless radical changes are made to assessment systems. For me, this change means dramatically dislodging educational assessment from quantifying learning, and instead building new theoretical foundations for educational assessment that align with the complex, interconnected, and collective learning goals and processes we now have for our children; a project in which several assessment scholars throughout the world are deeply engaged. Rather than retrofitting measurement principles for classroom use or adapting large-scale test items to inauthentic 'real-world' problems, we are called to generate assessment theories and practices that authenticate students' collaborative learning, and importantly, the impact of their learning on social, environmental and personal change, to more validly support, report, and honour the kind of learning that is important for today and tomorrow. In many ways, this means positioning each student and community at the centre of our assessment designs, diminishing our preoccupation with comparisons of students, one to another, and instead focusing on priories of equity, fairness, and validity.

In calling for radical assessment theories and practices, we must do so in tandem with teachers' voices and by empowering teachers to take risks in their assessment work: to envisage assessment possibilities that pair with a new curricular vision that breaks from the structures of the past. By listening to, learning from, and supporting teachers and students as they experiment with assessment in this new curricular space offers the best chance at moving towards more radical assessment systems. In supporting teachers' assessment experimentation, there is a need to reorient assessment literacy theories to ensure teachers have three critical capacities. First is the capacity to innovate in assessment. This capacity involves both granting teachers the permission and stimulating the creativity to think differently about assessment in practice. Second is the capacity to respond to the social consequences that result from assessment, to attend to the negative impacts of assessments that currently diminish well-being for many students and adjust assessments in ways that maximise positive consequences for learning, student wellness, and collective gain. And finally is the capacity for professional learning; the capacity to drive assessment plans forward, to seek out the resources, supports, community members, and colleagues that will bring to life new forms of assessment in schools. Thus, to move forward in our assessment systems we must give teachers both the opportunity to experiment with assessment

and equip them with a set of capacities to *think radically* about assessment in schools. Radical change in education, and thus our response to the global challenges before us, largely rests on the assessment systems we are prepared to endorse over the coming years. How radical are we prepared to be?

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Chapter 11
Provocation 2: The Impact of Digital Upon Assessment: Innovation is Necessary but Not Easy

Margaret Bearman

Abstract Bearman explores the impact of the digital in the light of the COVID-19 pandemic through two connected provocations. The first provocation is for innovation of assessment so that learners can navigate an ever-changing world. As many education systems have become increasingly data- and technology-driven, Bearman stresses the necessity for graduating teachers to have the skills to work within this evolving and ever-changing digital landscape. The second provocation is that such innovation in digital assessment is often easier said than done. Digital innovations can be complex and political and require compromise. Furthermore, the language used in assessment in a time of digital development has a significant role. Bearman asks how assessment practices can be meaningfully translated to support student development in a dynamic digital future.

The pandemic has revealed to us how digital can be both a lifeline and a curse. Those of us who lived in lockdown for 15 weeks, in Melbourne, Australia, could not have survived without our Internet connection, but we also could not thrive by solely relying on the digital. My observation of university educators, in my own and other institutions, was that everyone invoked the mantra: "We did what needed to be done, the best we could under the circumstances". This was particularly true in assessment. As now we emerge, at the end of 2020, into a familiar but radically changed landscape, what has changed?

I have spoken to a lot of educators, including those involved in teacher education, and there are some definitive overarching themes. I have learnt that the spectre of cheating loomed large for many; there was a general shift in sentiment away from supporting tightly timed invigilated exams; and accrediting proficiency without professional placements in schools has reinforced the value and need for some types of embodied assessment. It became clear to me, in our necessary and sudden scramble online, that focussing on learning through assessment is in short supply. At the same

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time, educators provided compassionate understanding and adjustment for students who were struggling personally and academically. The material, embodied worlds of learners were thrown into sharp relief: reliable internet connection and a quiet study space were now visible necessities for learning.

On reflection, it seems to me that digitally mediated assessment was both easier and more challenging than we had imagined. It was unexpectedly easy to shift assessment online because it had to be done. It was far more difficult to do something well, although I definitely saw some wonderful improvisations in a very short space of time. Moreover, what we saw was a shift in assessment modality and assessment design, but due to the circumstances, without broader considerations. This highlights two areas of focus, which I have framed as provocations.

11.1 Provocation One: Assessment Must Innovate to Help Learners Negotiate the Ever-Changing Digital World

The year 2020 reinforced the need to look beyond new assessment technologies to thinking about what our graduates need for a digital world. Working and learning in a digital world is fundamentally changing our lives. This is not some kind of a future utopia or dystopia; it is the world we currently exist in. I have a longstanding interest in learning within healthcare contexts. For example, the Nordic countries' health systems have become highly data-intensive over many years. Studies in these environments suggest real changes in how data and technology are fundamentally but complexly changing the role of health professionals within the workplace (Hoeyer & Wadmann, 2020; Nerland & Hasu, 2020). Reports from these studies shine a light on how professional work is constructed by technology; it is more than just a a tool to be used. It is worth considering how our assessment can respond to these significant societal changes.

I think, at surface level, we do quite well with ensuring graduate teachers have the skills they need to teach with technology. But these technologies are constantly changing, and we do less well in addressing the more substantive need for graduates who can constantly adapt to new technological landscapes. This may be through assessment that promotes critical digital literacies or develops skills that amplify human capabilities (Bearman & Luckin, 2020) or integrates cognitive offloading (Dawson, 2020).

In short, I believe we should look beyond e-assessment and focus more on how our assessment prepares our students for a digital world. The one thing we do need to be careful of, however, is that we do not fall into rhetorical traps. I have recently edited a book with the phrase *re-imagining assessment* in the title (Bearman et al., 2020), and one thing I have learnt from this is that re-imagining assessment is hard. We need to beware of simple solutions.

11.2 Provocation Two: Innovation in Assessment is Easy to Say but Hard to Do

A challenge we face across higher education, including teacher education, is that we underestimate the time, effort and sheer thoughtfulness needed for both effective online learning and quality assessment design. It is often easy to write about digital futures, evidence, data, accountability and collaboration in straightforward terms to invest them with possibility and overlook negativities. These can then be rightly critiqued. While it is important to be enthused about possibilities of the digital for assessment, it is also important to be realistic about limitations. However, we risk stasis if all we do is problematise. In a time when there is no escaping the digital, it is not enough to be disenchanted; we need alternatives.

I think that language plays a role. We need words that help us manage the aspiration–reality gap. For example, collaboration can be straightforward and joyous, but it is often tricky and political and requires compromise. In the digital space, analytics and trace data can be used to support educators, but they are often not used well. Digital innovation can improve assessment, but as we have seen, it can simply translate to a cut-down version of what we already do. However, technological solutions in universities, as Selwyn (2014) notes, are often invested with either gloom or glamour with very little in the middle. We need alternative framings.

One way of doing this is by focussing on the words that we use. Rola Ajjawi and I have been looking at different ways of looking at assessment criteria and similar types of standards commonly employed within higher education. We have critiqued the discourse of 'transparency'—a metaphor that suggests a student can 'see through' the rubric to the teacher's mind—as encouraging overly reductive approaches to tacit knowledge and promoting students 'gaming' assessment (Bearman & Ajjawi, 2018). But at the same time, the transparency metaphor serves a highly valuable purpose: it allows students to know what they should be doing and prevents assessment from being some kind of elitist secret. So, transparency is both valuable and problematic. We turned for inspiration to Diane Mulcahy's (1999) conceptualisation of teachers strategically juggling how they saw professional standards: both as concrete representations and as ephemeral performances. From this, we inferred that transparency is a metaphor associated with a representative view of a rubric—and all the problems that this entailed. However, we lacked the discourses of a performative view, and therefore, we offered a new metaphor: rubrics should also be invitational (Bearman & Ajjawi, 2019). Within this metaphor, the rubric should *invite* the student to do, think, make or create. Alternate terms highlight how writing a rubric is an inherently challenging task, full of compromise and inventiveness; it allows for rubrics to be appropriate in some circumstances and not in others.

While I am not claiming that new language will definitively lead to better assessment, it is a good place to start. Similarly, by posing alternative metaphors or investing in alternate language, we can start to frame the complexity behind terms like 'innovation' or phrases such as 're-imagining for a digital future'. We can therefore avoid the polarity of either/or and aim for nuance and, possibly, re-imagining. This is not

just attending to the perils of certain modes of construction but offering *alternatives*. Thus, while it is (relatively) easy to critique transparency with respect to assessment criteria, it is considerably more challenging to conceptualise an alternative metaphor.

11.3 Concluding Thoughts

I have offered two different but interlinked ideas here about how we should innovate in our assessment to account for the digital. First, I argue that our assessment needs to help our students navigate the inescapably digital world in which we all live. Second, I propose that one of the barriers is an over-simplification of the challenges of assessment (and technology), and consequently, we should find productive discourses for digital assessment that help manage this complexity. Of course, my intention is to raise questions, and there are many of them: What language should we use to frame quality, collaboration, innovation, evidence and accountability that gives a sense of their very real challenges? How can these meaningfully translate to assessment practices? How can these assessment practices help students negotiate a dynamic digital future?

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Chapter 12
Provocation 3: Language in the School Room

Maggie Snowling

Abstract In Provocation 3, Snowling highlights the attainment gap of disadvantaged children as a growing concern made more evident during the pandemic. She notes the role of oral language in this context, which is often neglected in the curriculum. In particular, Snowling emphasises that assessing language in its own right for school entry is just as valuable as 'reading readiness'. In particular, the development of oral language is identified as important for learners of diverse language backgrounds or those who have developmental needs. Snowling also notes concerns of socio-economic demographic variables and the role of educators to teach reading and writing, and to help children build a rich vocabulary. She identifies spoken language, or 'oracy', as important in the classroom as 'literacy'. Snowling provokes readers to consider the imperative for appropriate developmental language intervention in efforts to close the social differences that have grown as a result of the pandemic.

Everyone knows that there is a social gradient in educational attainment: children from disadvantaged backgrounds do less well in school than their advantaged peers, and they are under-represented at university. This attainment gap is likely to widen as the world recovers from the COVID-19 pandemic, and the economic downturn undoubtedly reduces the funds available for education. Moreover, outcomes will be worse for children whose parents do not speak the majority language, or do not have access to the Internet. In the face of such disruption, policy-makers will be pressed to close 'the gap'—but which gap or gaps, which interventions will they turn to for 'catch-up', and what will count as success? In this provocation I consider the often-neglected role of oral language in the curriculum, the importance of assessing language in its own right at school entry (rather than focusing more exclusively on 'reading readiness'), and the importance of evidence-based interventions.

School systems globally—arguably at the behest of government policy-makers—appear to be fixated on literacy (reading and reading comprehension) and numeracy

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(arithmetic and problem solving). What is lacking is reference to the fact that, when children enter school without a strong foundation for learning, they do less well in the education stakes. In a recent survey, we asked teachers, '*What is the most important challenge you face in supporting less advantaged children when they start school?*'. Most responded that students have problems with language and communication which make them difficult to teach. When asked, '*On what do you mainly spend your 'pupil premium' [for disadvantaged children] in the early years?*', the most frequent responses indicated that teachers funded extra support with literacy or with numeracy (and not language intervention). It could undoubtedly be argued that this response is a regrettable consequence of high stakes testing in reading and in mathematics. While screening to identify children who are slow to learn to read can be commended and even justified, it is increasingly apparent that to ignore a shaky foundation in oral language skills has longer term and wider implications.

Spoken language is the foundation for literacy, numeracy, and many other forms of learning, not least because the curriculum is delivered through language. In addition, language is important for self-regulation and attention control; the corollary of this is that children with poor language are at risk of emotional and behavioural difficulties. For many years there was an assumption that, by the time they go to school, children have a fully developed oral language system which underpins and can scaffold their learning**.** Sadly, this is not the case for all children, and there is now considerable evidence of a difference in the language skills that children from less advantaged backgrounds bring to the task of learning, compared with those from more advantaged homes. This gap is usually most visible with respect to vocabulary size, but there are also differences in the nature of talk and in the grammar used, as well as what are sometimes termed 'emergent reading skills', namely phonological awareness and letter knowledge. There are other developmental reasons for poor language too. These include neurodevelopmental disorders such as developmental language disorder (DLD), or dyslexia, and others have genetic conditions, such as Down syndrome. Without early targeted intervention, such children will not catch up. It follows then, that there should be screening for language at school entry, as has been adopted in Australia but is not yet universal practice across the world. Rather, there continues primarily to be a focus on progress in reading and in mathematics, particularly in low- and middle-income countries where multilingualism can itself cause disadvantage in school.

It falls to all educators to be aware of the issues that these demographic variables raise: they should aim to teach reading, including phonics, within a language-rich curriculum; they should ideally help children to build a rich vocabulary; and help students extend their oral and written narrative skills and to encourage good listening behaviours. In a language-rich classroom, 'oracy' is as important as 'literacy', spoken communication is as important as writing, and reading comprehension is *more* important than word reading or spelling. While phonics is a critical skill, it must be remembered that reading is a written language skill and reading for meaning depends upon good language. Here I refer to the Report to the United Kingdom Government by Sir Jim Rose (2006), where he offers the position that "reading instruction devoid

of language is not reading at all" (Snowling, 2018, para 9). Turning to numeracy—where longitudinal research is more limited—language is also a strong predictor of individual differences in arithmetic fluency, along with executive attention and number knowledge. Hence, language is required to foster mathematical achievement. Put simply, it is important to be aware that arithmetic builds on verbal skills, and mathematical problem solving requires good language comprehension.

More critically, teachers and policy-makers need to know that interventions to promote oral language skills work, what the components are, how they can be implemented in busy classrooms, and whether they can have sustained impact. While the bulk of evidence regarding 'what works' in education relates to literacy, there are now several published studies of language intervention using robust methodologies. Indeed, a systematic review and meta-analysis by Rogde et al. (2019) showed that it is possible to produce significant improvements in children's oral language skills, albeit small ones, via language intervention. The components of the interventions vary to some extent, but at the core they involve vocabulary enrichment, narrative and listening comprehension. Further, they can be delivered by trained teaching assistants, thereby reducing the burden on mainstream class teachers, noting that studies with higher-quality implementation show larger effects. Moreover, there is suggestive evidence that the effects of oral language intervention can lead to improvements in reading comprehension—a key goal of literacy development. This latter finding highlights the need for follow-up and monitoring. At the present time, few research studies have tracked children over time, but large data sets are to be found within schools and education authorities. Sharing of these data could elucidate contexts for a lot of children with poor language and spur the field to action.

The future agenda is not simple as this provocation outlines. Assessing language is more difficult than assessing literacy or numeracy where 'paper and pencil' or now, more often, digital assessments can be used. Nonetheless, apps (application software) can be adapted to reliably assess components of the spoken language system, phonological awareness and letter knowledge, and offer routes to practice and 'consolidated learning'. But then there is the question of bilingualism or multilingualism, as is often found in low- and middle-income countries. Language intervention can be delivered successfully, but how will we train those who are to deliver it in an effective manner with high fidelity, if there are large distances between training venues and there are unaffordable costs of releasing staff from schools for continuing professional development and learning? Online courses have become widespread, but there are wider questions: Who should deliver the training and to whom? Is it effective to work with families so that the home learning and literacy environment in which the preschool child is immersed can be better attuned to set the stage for learning? What we do know is that much of this will have to be virtual if we are to deliver 'at-scale'. But effective pedagogy of virtual learning is not yet established, and the problems of implementation are vast: What is the optimum length of a session, be it directed at a parent, a teaching assistant or a child? How much knowledge should be delivered top-down and how much can be left to independent learning? How can we ensure those taking part remain motivated and engaged? And how do we ensure optimum practice for consolidation? Ultimately, whatever the cost, we must develop, deliver,

and monitor interventions that close the social differences in educational attainment which may have deepened in recent months as the result of a global pandemic.

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Chapter 13
Provocation 4: Educating for the Future—Reflections from COVID-19 Lockdown

Kari Smith

Abstract In Provocation 4, Smith notes that COVID-19 has provided an event that could not have been predicted, yet one that has caused a rethink of education, and in particular assessment in education. She makes the claim that the pandemic has brought to the fore the flaws in existing infrastructures, making it evident that teachers do not adequately understand the complexity of assessment. She proposes that this is the area where teacher education now needs to focus. Smith further claims that education systems and leaders do not have a robust understanding of alternatives to traditional assessment. She challenges readers to reconsider how assessment is understood. In addition to this, Smith notes that the pandemic has amplified the digitalization of education and the role of the home in education. Smith provokes readers to think about how education, including assessment, can be restructured.

'The best way to predict the future is to create it' (Abraham Lincoln, 1809–1865).

Abraham Lincoln was the 16th president of the USA. Born in poverty, self-educated as a lawyer and a strong-minded moralist and statesman, he was one of the main creators of his nation's future. However, he could neither create nor predict his own future, as his tragic assassination on April 14, 1865, brutally put an end to his personal predictions and plans.

The future is unknown to us all, even though we try to plan for and predict it. We employ futurists who specialize in futurology. It is about foresight, systematically looking into what is possible, probable, and preferable, and moreover, possible 'wild cards'; low-probability events with high impact (Bell, 1996). Abraham Lincoln faced a wild card at the theater in 1865.

Policy makers and educators do their best to predict the future and what knowledge and skills, attitudes, and values are needed in the future, alongside how educational systems can best prepare students to act in the predicted future. Solutions to meet environmental, economic, and social challenges (OECD, 2018) are sought.

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In early 2020, an unpredicted wild card in the form of a global pandemic changed our lives and transformed education by hitting hard globally. We were locked down. The practice of education as we knew it became dangerous, and, in the absence of any concrete ‘Plan B,’ unplanned alternatives were immediately implemented.

In our naivety, we thought the lockdown would be temporary and within a couple of months we could all go back to the old normal. This return happened in very few countries (e.g., New Zealand). At the time of writing, most of us are still in various forms of lockdown, and today (after nearly a year working from home), we no longer talk about going back to the good old normal. Many of us have been on a steep learning curve in our digital capabilities. Now that we have had some time to reflect on our experiences, it has started to sink in that the old normal is gone, and we have to create a new normal. Then again, perhaps it is dangerous to call it a ‘normal,’ as unpredicted wild cards in the future might well again take us by surprise.

Of the many lessons COVID-19 has taught us, in this provocation I reflect briefly on two that I believe need to be taken into consideration when predicting and planning for the future of education. These are lessons about the nature and purpose of assessment and the monopoly of educational venues on teaching and learning.

Assessment is a tense topic in educational discussions. The tension between formative and summative assessment and between practitioners’ pedagogy and policy makers’ accountability requirements is felt in every school and university. Likewise, the question of how to develop assessment competence and a shared understanding of assessment in the broad range of stakeholders remains unsolved.

One of the lessons I have learned over the last year is that assessment needs to change. Carrying on with the old normal has failed, at least in my context. Big, final, end-of-school exams were abolished, and teachers were tasked with the responsibility to award the final grade. This increased students’ motivation for learning (Sandvik et al., 2020) and reduced stress, thereby strengthening learning.

This set-up has exposed its own set of challenges. Collaboration among teachers and communication with students were found to be inadequate and the criteria for assessment unclear. This caused frustration among students who did not understand the components of their grade. The underlying problem is the lack of a shared language of assessment and the assessment competence of teachers, and it has become evident that the necessary knowledge infrastructure is not in place. First, teacher education does not sufficiently focus on the complex world of assessment, probably because teacher educators are not sufficiently assessment competent. Second, education systems and education leaders have no robust experience with alternatives to traditional methods of assessment, not even at the conceptual level.

As this knowledge deficit becomes clear due to COVID-19, we have to restart, rather than simply revise, the way we think on the nature of assessment (how we assess) and its purpose (what we assess). On the nature of assessment, we need to strengthen theoretical and practical assessment knowledge in education programs, up-skill existing teachers and teacher educators, engage education leaders in open conversations on the spectrum of assessment tools, and advocate for a range of alternatives to be used in practice, not just during times of crisis. On the purpose of assessment, we need to move from assessing what has been learned, to assessing

how acquired knowledge can be applied in solving unexpected challenges. This has been made clear in the current environment of an unpredictable future.

A good example of such an assessment task was the then visionary case of a cross-discipline final school exam that the late Israeli professor Gavriel Salomon presented at a conference several years ago: 'A foreign nuclear submarine has disappeared in one of the Norwegian fjords. Solve the problem for the Norwegian government' (see also Salomon & Perkins, 1996). Salomon suggested a group of six students were locked in a room with unlimited Internet and technical facilities (including food and drinks) for six hours to work out a logical and informed solution, drawing on knowledge from most school subjects.

When Salomon was asked how to grade the individual student, he quickly responded 'that is your problem, you are the assessment people.' He was right, this is our problem to solve. To restart how we think about assessment, we need to explore possibilities of assessing how students draw on acquired and accessible knowledge to creatively handle the unexpected. When it comes to the purpose of assessment, the question we need to ask is no longer what they have learned, but how well can they apply knowledge in seeking innovative solutions to unexpected challenges. There is no right answer, but creative and logical answers. The multiple-choice type of exams will hopefully be relegated to history.

The second issue I provoke is the traditional perception that formal education takes place in educational institutions, schools, and universities. Leveraging experiences from this year, it is time to explore new alternatives. Teaching and learning has both cognitive and affective aspects that are mutually reinforcing. Looking at how these aspects have been fulfilled over recent months contributes to the argument that formal education (beyond the primary level) should be divided between educational institutions and the home. This is acknowledging the fact that for younger learners, school also serves a 'babysitting' function for working parents.

The cognitive and affective aspects of teaching and learning are interrelated. Education institutions have, until now, served both aspects. However, looking back at the explosive development of digitalization of education in the last year, when the home became the educational venue, the monopoly of schools and university campuses as educational venues is challenged.

Let us consider first the cognitive aspect of teaching and learning. Based on research and the experiences I have been involved with this year, it seems that the academic level of learning from secondary school, teacher education, and doctoral education is not only maintained by the online venue, it has also improved. When flipped classrooms were used, students reported being more motivated, able to go more in depth at their own speed, and not feeling the pressure of getting lost when teachers rush through the material. They also enjoyed being in control of their time, deciding when to learn. The cognitive aspect of learning seems to be enhanced by exploring the many benefits of digitalization. In contrast, the affective, social–emotional, aspect of learning suffered. Many students felt isolated working from home and missed meeting peers and teachers physically. This may also impact cognitive objectives, as the informal learning taking place over lunch and coffee was lost. Online breakout rooms and discussion groups did not make up for this.

Teaching and learning is about transmitting and processing knowledge. Digitalization challenges the understanding that transmission of knowledge best takes place in big auditoriums or classrooms where everybody takes in the same information, at the same time, from the same expert. Flipped classrooms serve the same purpose in a better way, as learners have access to further information online to expand their learning. However, learning also requires processing information, and within a social–cultural view on education, processing takes place in learning communities, such as study groups and small seminars characterized by dialogue and discussion. Learners need to meet, and educational institutions offer good venues with the necessary facilities. Students' well-being to enhance learning becomes central (OECD, 2018).

Thus, I argue that schools, universities, and other venues entail different educational benefits. The COVID-19 lockdown forced policy makers and educators globally to explore ways to change education to prepare for an unpredictable future. There is a golden opportunity to restructure education, informed by our experiences from 2020.

In this provocation, I have presented my own possible, probable, and preferable prediction of how assessment and education might change in the future. However, the world will, as for Lincoln, encounter unexpected wild cards in the future that will most likely challenge these understandings. The question is then, how prepared are we to handle the unknown? We need to reboot traditional views of education and assessment to be agile and to prepare for the wild cards the future will undoubtedly bring.

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Chapter 14
Provocation 5: COVID Triggered Disruption in Teacher Education and Resultant Actions

Claire Wyatt-Smith, Chantelle Day, and Lenore Adie

Abstract In Provocation 5, Wyatt-Smith, Day, and Adie describe how, due to the COVID-19 situation, preservice teachers were unable to complete TPAs in classrooms in 2020. The teaching workforce pipeline of graduate teachers in 2020 was at risk. The closure of schools presented significant concerns regarding the policy requirement for graduates to demonstrate professional competence (classroom readiness). In this provocation, the authors present how the GTPA Collective was able to meet these challenges during the impact of COVID-19 on teacher education. The response involved designing GTPA *Data Scenarios* that presented a class context and included authentic data samples and materials drawn from previous cohorts.

14.1 Introduction

Our provocation concerns the ways COVID-19 caused disruption and innovation in teacher education. Well before the COVID-19 pandemic, educational assessment was undergoing transformation. We have observed how this has been led in part by agents of change with new types of expertise outside the more traditional domains of schooling and education policy—e-systems, digital platforms, systems thinking, and data analytics including predictive analytics. In these new spaces, edtech companies and edubusinesses have emerged, promising new digital architectures and systems for archiving data with high security, high quality diagnostic assessments and rapid turnaround of student results as data for ongoing monitoring and measurement purposes. We have read reports of high-stakes examinations being cancelled in several countries

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causing concern for student well-being in the context of COVID-19 (Coughlan, 2021). We have read concerns about the use of algorithms and the use of machine scoring of writing in some countries (McGaw et al., 2020). Countering this has been the already strong and growing advocacy for the use of technologies to support learning and deliver test dependability with efficient scoring and reporting.

Teachers' professionalism has been far less prominent, however. Teaching and evaluative expertise (Wyatt-Smith & Adie, 2019) are essential as the cornerstones of how technology is designed and used to engage and support diverse learners. With a myriad of possibilities for new types of assessments using Virtual Reality and Augmented Reality, rich simulations can be developed to present new contexts in which students undertake assessments and to enrich learner engagement. We now have the opportunity to tailor assessments more closely to the needs and interests of learners. The missing piece is the role of the teaching profession and professional judgement in designing and using technology in ways that support learners and do not act as substitutes for teacher dialogue with learners.

The COVID-19 pandemic thrust technology onto centre stage demanding attention to new imaginings of education for all ages. A report by Monash University in Australia identified that while the coronavirus pandemic (COVID-19) was "stress-testing all aspects of society… it has already stretched our education systems to breaking point" (Monash Education Futures, 2020, p. 1). The upheavals were also evident in higher education. This included collaborations with industry partners in the preparation of professionals through work placements in schools, hospitals and law firms. In teacher education, our immediate threat was the potential loss of graduating teachers and the resultant break in teacher supply to the workforce. The closure of schools meant that preservice teachers could not complete the final school-based component of their program. The consequence of this was that they could not progress into the workforce. The pandemic challenged the culturally accepted and embedded belief that 'classroom readiness' must be demonstrated in a classroom setting.

14.2 The Disruption to the Teaching Workforce Caused by COVID-19

Universities recognised that the demand for placements would well exceed the capacity of schools to provide them if and when schools reopened in 2020. Similarly, it was recognised that various initiatives relating to online teaching would enable preservice teachers to demonstrate the range of knowledge, skills and pedagogic decision-making required by the Australian Professional Standards for Teachers (Australian Institute for Teaching and School Leadership [AITSL], 2011) and more specifically, those necessary for meeting the standard for classroom readiness. It

Table 14.1 Breakdown by state of final year preservice teachers affected by school closures due to COVID-19 in the GTPA Collective

State	Finalised numbers (Dec 2020)
Queensland	1996
Victoria	1390
New South Wales	935
Tasmania	300
Western Australia	257
Australian Capital Territory	58
Total	4936

was determined that the Graduate Teacher Performance Assessment (GTPA),[1] as a mandatory assessment for graduation and licensure, could not be undertaken in current circumstances in the usual way. Priority action was necessary to enable preservice teachers to progress their degree requirements (reach graduation) and to support recruitment in 2021 (the next class of graduating teachers to enter the workforce).

Within the GTPA Collective, an initial audit of the number of preservice teachers that would be affected by school closures and the inability to access schools for professional experience due to the pandemic, revealed over 3000 preservice teachers. A final audit at the end of 2020 showed that close to 5000 preservice teachers were supported to meet final program requirements through the actions that were put in place (Table 14.1).

14.3 Acting in Response to the COVID Disruption

The response to the COVID disruption was mobilised through the large-scale collaboration and the enabling power of technology successively developed over the preceding five years of work with the GTPA Collective (see Chap. 16 for details of the GTPA digital infrastructure). The established partnerships were essential to the success of this endeavour and to ensure consistency with state requirements and school contexts. The coordinated approach involved ongoing engagement with four stakeholder groups: (1) senior executives and experienced teacher educators in the GTPA Collective; (2) education and regulatory authorities from across seven states and territories, for example, in Queensland discussions occurred with the Director of the Queensland College of Teachers (QCT) and the Director-General, Department of Education; (3) the Chief Executive Officer and Senior Managers of AITSL; and (4) a multidisciplinary design team. Discussions were focussed on three critical issues related to the availability of face-to-face placements, the options for online

[1] Acknowledgment:: The Graduate Teacher Performance Assessment (GTPA®) was created by the Institute for Learning Sciences and Teacher Education, Australian Catholic University and has been implemented in a Collective of Higher Education Institutions in Australia (graduatetpa.com).

teaching and opportunities for preservice teachers to undertake their placement digitally, and how the GTPA could be implemented digitally and maintain its integrity as an officially endorsed Australian teaching performance assessment (TPA). These issues included the requirement that the necessary accountability and quality assurance mechanisms for assessing performance, undertaking moderation (intra- and inter-institutional) and reporting requirements remained unchanged. The outcome of these meetings was an agreement to repurpose authentic materials from previously submitted GTPA samples as Data Scenarios.

The GTPA Collective drew on available technologies in the necessary quick response to this impending break in the teaching workforce pipeline of graduate teachers for 2020. The response involved designing GTPA Data Scenarios that presented authentic data samples and artefacts drawn from real class contexts. Needless to say, this response would not have been possible before the GTPA Collective work commenced as the preceding chapters in this volume have shown.

14.4 The Data Scenarios

The design of the data scenarios focused on the targeted use of classroom evidence which could be applied in a simulated context. The scenarios included data samples and materials drawn from already submitted GTPA samples. The intention was to provide scaffolds for preservice teachers to access and use authentic evidence of a type they would routinely expect to have access to and use in a classroom context. Preservice teachers were presented with a school context statement and were asked to select a curriculum area and phase of schooling. They then accessed materials to support them as they sought to demonstrate their knowledge and skills in the five practices of the GTPA (planning, teaching, assessing, reflecting and appraising; see Chap. 2). Box 14.1 details the design principles that were instigated to ensure that the integrity of the GTPA as an assessment of classroom readiness was retained in the data scenarios.

Box 14.1 Design principles of GTPA Data Scenarios to ensure assessment integrity

1. The GTPA should be implemented as designed and with fidelity to show the full cycle of teaching, learning and assessing, and to address the Australian Professional Standards for Teachers (APST) as identified in the GTPA Preservice Teacher Booklet (ACU, 2020). The stated requirements of the five practices should be addressed.
2. The data scenarios should provide opportunities for preservice teachers to demonstrate ***intended*** practices and pedagogic decision-making.
3. The data extracted from a source GTPA are designed/selected to:

   a. reflect the data that is available in professional experience classroom settings (i.e., data that is of a type that the preservice teacher would have access to and collect in their classroom practice); and
   b. provide scope for the preservice teacher to show their *intended* practices and pedagogic decision-making.

4. The data and accompanying information provided in the data scenario should:
   a. provide source material to support coverage of the five practices (e.g., contextual information, details about the curriculum, as well as formative and summative (could include diagnostic) types of data and evidence); and
   b. leave sufficient scope for the preservice teacher to identify and design other complementary data collection processes across the five practices.

A rigorous quality assurance process was necessary to ensure the quality of the data scenarios. Included in this process was the development of an audit tool that was used to review authentic GTPA samples and determine if they contained: (1) sufficient information about the school and classroom context, (2) sufficient data evidence at the whole class and individual student level/s (including diagnostic, formative and summative data types), and (3) sufficiently clear data and evidence, at the level of 'quality' and 'clarity', to allow the required visual enhancements for users to be able to effectively make use of the provided materials (e.g., sharpening images of students' written work samples). For each scenario, a minimum of four to five ILSTE staff undertook the review. The review team was multidisciplinary and contributed specialised design skills, experienced teacher educator knowledge, and research expertise in the fields of teacher education and assessment. The expert panel comprised a team of five experienced teacher educators from across the GTPA Collective. Box 14.2 provides an overview of the essential data contained in each scenario.

Box 14.2 Data Scenario essential data covering each of the five GTPA practices

Purpose of the data

1. Planning (for informing teaching): useful at the beginning to plan the learning sequence.
2. Formative: showing student progress during the teaching of a learning sequence.
3. Summative: covering the assessment at the end of the learning sequence.

Scope of the data

1. Whole class: providing data tables and/or graphs that show student performance for all learners in the class.
2. Individual: providing student work samples as completed by selected students.

The scenarios served as a 'resource pack', offering information about the class and the curriculum that the preservice teacher would be 'teaching' as well as authentic examples of student data from a whole class and individual students. Preservice teachers used the data scenario to show what they *would do* if they were undertaking their placement in the specified classroom context described in the data scenario, that is, the described classroom profile and students were treated as 'their' students. It was essential that each data scenario contained data that could be used for each of the five GTPA practices and that preservice teachers could provide evidence of practice in an area of speciality (Fig. 14.1).

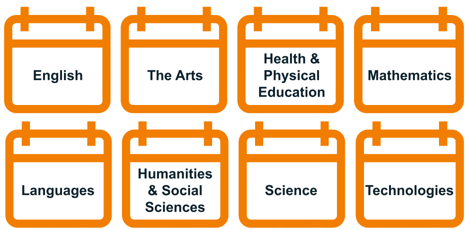
The dissemination of data scenarios to teacher educators and preservice teachers needed to be secure as well as accessible within a user-friendly interface. Data scenarios and related resources were housed in a purpose-designed online repository as part of the established GTPA infrastructure (See Chap. 16). While no one can be certain about the future, the level of support from teacher educators and national and state regulatory bodies across the country is clear in the in-principle and signed agreement to contribute to this project which rethought the practicum and evidence of practice in the unprecedented circumstances of COVID-19.

5,000+

Total preservice teachers in Australia who have completed the GTPA in 2020

3,000+

Preservice teachers who have used **Data Scenarios** to complete their GTPA in 2020



GTPA Data Scenario Repository

- 20 Data Scenarios
- 8 Curriculum Areas
- All Phases of Schooling from Foundation to Year 12
- 14 Resources
- PLUS: Preservice Teacher Booklet 2020

Fig. 14.1 The reach of the GTPA and GTPA Data Scenarios in 2020

14.5 Conclusion

In Chap. 9, Nuttall, using cultural historical activity theory, identified that in accord with Blunden's (2014) conceptualisation of collaborative projects, the GTPA could be considered an enactment of collaboration through the data scenarios. That is, the scenarios were a truly collaborative contribution *by* preservice teachers *for* preservice teachers to enable their program completion and graduation. The scale and the absolute imperative of this project—to save the workforce pipeline—represents distributed cognition among peers in a manner we believe may be unprecedented.

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Chapter 15
Commentary: We Have to Get TPAs Right!

John Hattie

Abstract The commentary commences with the proposition that "We have to get TPAs right". Hattie starts with the recognition that teacher education has already been the subject of extensive review and critique, with a succession of reform attempts. He notes that ITE programs across Australia illustrate remarkably high variance in quality measures. Hattie notes the significance of TPAs that have emerged in Australia and the impact that these will have. He comments that the profession has an exciting and important role in setting standards and that this could be the start of a new confidence in quality—but there is still much to do. The evidence from the TPA could generate a new wave of evidence to make ITE programs a hothouse of exciting research.

Teacher education must be among the most reviewed, critiqued, and reformed sector in education. Louden (2008) identified over 100 government reports across Australia since 1979. Despite these reports and reviews, there remain claims that principals and graduates are not prepared; the perception is that universities will take on any applicant (with a wallet), and each year there is bemoaning about low entrance qualifications (e.g., Australian Tertiary Admission Ranks [ATARs] below the desired 70th percentile of the school population).[1] Everyone seems to want to prescribe course content, direct more time for preservice teachers in practicum, insist on recently practicing teachers as the teacher educators, lengthen preservice courses, and so on. A million answers offered, most of which relate to the input (who enters and who teaches) and the course (curriculum, time).

Teacher education, in large part, remains a cottage industry, allowing each program to be unique. There is little overlap in course foci, few, if any, common assessments

[1] Australian Tertiary Admissions Rank (ATAR), is a rank that ranges from 0 to 99.95. It indicates a student's position relative to their year group cohort. See https://www.uac.edu.au/future-applicants/atar.

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Table 15.1 Summary of 2019 ITE Data Report results for highest and lowest scoring universities

	2019						
Highest	Teaching	Quality	Employment	ATAR > 70	Undergraduate completion	Graduate satisfaction	Q index
#1	91	92	79		71	92	85
#2	85	85	82	92	52	85	80
#3	86	86	76	65	76	86	79
#4			74		74	89	79
#5	89	90	70	85	53	82	78
Lowest							
#33	73	72	78	46	34	75	63
#34	72	74	71	40	38	66	60
#35	74	71	67	16	57	72	60
#36	69	72	62	18	63	73	60
#37	68	66	66	25	70	59	59

across programs, and it seems remarkable in a country of 25 million that there are close to 300 different teacher education programs with approximately 85,000 students, of which about 7000 gain full-time teaching jobs each year. I have been head of school in three universities, watched closely the University of Melbourne clinical model from the inside, worked in the US for the National Council for Accreditation of Teacher Education (NCATE), and am now the Chair of the Australian Institute for Teaching and School Leadership (AITSL) board. In these roles, I have read reviews of so many initial teacher education (ITE) programs: all claim wonderful rigour and success, can provide anecdotes or videos of exemplary students, and all use 'evidence-based' arguments for their programs, even as the programs are amazingly different.

The variance in programs across Australia illustrates remarkably high variance in quality measures. The most recent ITE Data Report (AITSL, 2019) provides a vivid example of the variance between the five ITE institutions rated highest and the five rated lowest across a number of indicators: student perceptions of the ITE Course (teaching quality and overall quality), graduate employment outcomes (percentage of graduates working full-time or part-time in schools), percentage of those with an ATAR greater than 70 (from those admitted with ATARs), undergraduate completion after six years, and graduate satisfaction (from the course experience questionnaire) (see Table 15.1). Sadly, too much media coverage suggests ITE programs are all akin to the lowest—where 80% can have ATARs less than the desired score of 70, graduate satisfaction is low, and so on. The need for evidence to esteem the highest quality programs, drive all to these levels, and provide evidence of the success of these programs is powerful in maintaining the perception and reality of high quality teacher education programs.

The evidence of ITE impact in the research literature is limited. Rowan et al. (2015) noted that “there were almost no studies that demonstrated direct causal links from teacher education programs to student learning” (p. 279, citing Cochran-Smith & Zeichner, 2005). Grossman (2008) was emphatic with regard to how little is known about the impact of teacher education programs or the characteristics of teacher education that make the most difference in preparing teachers to teach well. She noted that much of the current limited evidence is based on a single researcher’s or a small group of researchers’ investigation of their own program. It is rare to have the context of the program or the methods of data collection and analysis described in sufficient detail to understand either the program or the findings. Most are not published in peer-reviewed journals and hardly any follow the graduate into the classroom.

There have been five meta-analyses on the impact of teacher education on the learning of school students from ITE courses (most studies compare teachers with no or limited preservice training with those experiencing five to six years). At best, there are 117 studies with a tiny effect-size of 0.10 (se = 0.03). In a rare, random-controlled study involving assigning classroom students to 44 teachers trained through the alternative Teach for America program and 56 practicing teachers (Glazerman et al., 2006), there were no differences in the impact on student reading and impact of $d =$ 0.15 in mathematics. The typical findings from the few longitudinal studies available is that more learning takes place in the first year of teaching THEN in the second year, and there is very little evidence of impact from the previous four to six years of preservice teaching (Atteberry et al., 2013; Henry et al., 2011). It is a major indictment that ITE programs are not rigorously publishing their evaluations, using established methods to show advances of any new versus older programs, comparing impacts across programs, or building an evidence base to have debates about optimal teacher education programs. No wonder there are sceptics about the value of investing in ITEs.

Few reports have focused on outcomes, until the Teacher Education Ministerial Advisory Group (TEMAG) report (Craven et al., 2014) which focused on ensuring teacher graduates were ‘classroom ready’. The premise is to leave the design and running of ITE programs more to the universities, and have governments focus on the outcomes (although they tend to want to have a say on the quality of inputs as well). A major part of this report was the need for teaching performance assessments (TPAs), an innovation developed in the US by Darling-Hammond (2010). In the lead up to TPAs, there was much discussion about how to get the profession to have a major say in setting the standards. I attended the US TPA conference and noted (1) there was but one TPA across 18 states, (2) there was much discussion about the problems of students (rather than programs) who were not passing, and (3) there were moves for programs to morph into becoming more similar, rather than creatively different programs. In Australia the intent was to allow for creatively different teacher education programs, to put the onus on the institution to improve their programs (not students), and to implement cross-institutional moderation to ensure the profession was intrinsically involved in setting the standards. The goal was to make the evidence

robust and public, so it could be used to restore faith that there are, indeed, quality teacher education programs across the country.

In completing a TPA, ITE candidates collect evidence of practice in the final year of their program to ensure they are meeting minimum quality expectations as defined by the Australian Professional Standards for Teachers (AITSL, 2011). Not only do TPAs provide a valuable and authentic measure of the readiness of preservice teachers to commence teaching, but they also give assurance that new teachers have the practical skills and knowledge needed to be successful in the classroom. The TPA is a critical part of Stage 2 program accreditation, where programs are evaluated on outcomes rather than inputs.

Two consortia were seed-funded to start the process of implementing TPAs and these remain shining lights in diversity, rigour, and messaging. Some institutions are still fighting against involvement, claiming they will lose independence (suggesting the 28 institutions in the two consortia have lost independence and do not have their own unique programs), and resisting cross-institutional moderation. Their lack of engagement may lead to losing the best chance for the profession to have a major say in the outcome standards of their programs.

It was imagined there would be between two to five consortia in total, but sadly, that there are currently 15 creates a risk to the consistency of the passing standard across all TPAs, as well as costs to the schooling sector having to learn and work with different TPAs in their school. There is a national advisory group that recommends to the state and territory teacher regulatory authorities the alignment to the national professional and program standards (AITSL, 2015) and whether the TPA has reliable and robust cross-institutional moderation that determines the passing standard of a TPA (using quality standard setting processes). There needs to be questions asked about whether 15 consortia is too many, whether there needs to be more assurance around any subsequent changes to the TPA, and whether they should be re-endorsed on a regular basis (e.g., every three years, or every time a major modification is made to the program). There may need to be a clearer mandate to monitor implementation and cross-institutional moderation (which was a key hallmark of the TPAs), as well as annual reports to make transparent that there are high quality ITE programs across Australia, and thus provide quality assurance to politicians, the public, and those considering becoming teachers, and esteeming the academics in ITE programs.

Since the TEMAG report, there have been many remarkable enhancements, and university deans and their staff need to be congratulated; for example, nine out of ten principals and graduates are now satisfied with their preparation to teach, and the most exciting change has been the involvement across ITEs in the development and implementation of TPAs. The fact that the profession has a major say in setting standards is exciting, and could be the start of a new confidence in quality—but we have much to do to ensure this. The evidence from the TPA could generate a new wave of evidence to make ITE programs a hothouse of exciting research.

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Part IV
Future Directions

Chapter 16
Innovation in Methodology: Longitudinal Analysis of Progression in Teacher Preparation

Michele Haynes and Andrew Smith

Abstract The implementation of the Graduate Teacher Performance Assessment (GTPA) in participating Australian universities has provided data on preservice teachers' *profession readiness* to teach, benchmarked against the established standard. The GTPA is a summative competence assessment in a series of assessment events over the preparation program that can be considered as constituting the performance trajectories of preservice teachers. These trajectories can be formed from program entry to exit by linking preservice teachers' assessment data at sequential time points throughout the program. Analysis of the trajectories will identify the principal patterns in performance progression that lead to either success, or under-performance. These patterns give insight into the process by which preservice teachers achieve profession readiness on program completion and the characteristics of individuals associated with these outcomes. The methodology for constructing and analysing multivariate performance trajectories is novel in education research. The statistical methodology to analyse the trajectories of performance that consist of irregular assessment events and duration requires purposeful development. In this chapter, we outline the processes for: accessing the data required to create the preservice teacher performance trajectories; building the data infrastructure that will support linking the data in a time sequence; and developing the innovative analytic approach that is suitable for profiling complex longitudinal sequence trajectories and visualising the findings.

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16.1 Introduction

As discussed elsewhere in this collection, the implementation of the Graduate Teacher Performance Assessment (GTPA®)[1] in participating Australian universities has established an agreed standard and provided the data needed to demonstrate readiness to enter the profession on completing initial teacher education (ITE) studies. This validated and reliable measure of competence in teaching and assessment applies at the point of exit from the preparation program. The GTPA score can be considered the final standardised measure of teaching competence (Craven et al., 2014), which is located at the terminal point of a series of assessment events that take place across the duration of an ITE program. This final measure serves two purposes; first, it is a pre-requisite for graduation and entry to the classroom, and second, it can be used as a baseline measure from which teachers' future effectiveness in the classroom can be examined at intervals following workforce entry, to identify how ITE programs and preservice teacher preparedness have impact on student learning outcomes (Wyatt-Smith et al., 2021). To achieve the latter purpose, it is critical to consider how evidence can be extracted from existing ITE program administrative data to improve the effectiveness of ITE programs in producing preservice teacher graduates with an acceptable standard of profession readiness before they progress to the workforce (for a discussion of profession readiness see Chap. 2).

Preservice teachers enter ITE programs at different stages of the life course and arrive with a wide range of experiences and skills that can contribute to their professional competence as a teacher. It is important to be able to harness this accumulation of pre-ITE skills and abilities at point of program entry and monitor performance through to completion, where readiness to teach is assessed and benchmarked against a common established standard. It is at this final stage of progression through ITE that individual readiness to teach is determined, independent of a preservice teacher's history on program entry. While the final assessment of competence does not include direct consideration of individual characteristics or experiences prior to ITE program entry, selection for entry to the ITE program and performance throughout the program leading to the final GTPA, could be impacted by these factors.

Knowledge of preservice teacher characteristics, pathways to entry and performance trajectories could inform an understanding of how to prepare profession ready teachers who are effective in the classroom. Different patterns in performance trajectories can be examined and used to predict which patterns are likely to lead to a successful GTPA outcome and success in both the broader academic teacher education program and the school-based practice component of the program. Understanding where support is most needed at critical assessment points throughout a program will also inform program development. Using empirical data to examine the relationships of prior academic performance and regular performance assessment throughout the program, culminating in an assessment that demonstrates readiness

[1] Acknowledgment: The Graduate Teacher Performance Assessment (GTPA®) was created by the Institute for Learning Sciences and Teacher Education, Australian Catholic University and has been implemented in a Collective of Higher Education Institutions in Australia (graduatetpa.com).

for effective teaching, provides evidence of what matters most in preservice teacher selection and preparation for the teaching workforce.

Trajectories of performance for preservice teachers in an ITE program cohort can be formed from program entry through to program completion or early exit, by linking individual's assessment data at key sequential time points throughout the program: from the program entry score to regular and mandatory assessment events in each semester, and finally the GTPA score at the end of the program. Demographic factors and other temporal individual characteristics can be included in the data to examine the associations with performance trajectories. Principal patterns in performance progression that lead to either success, under-performance, or separation from a program will be identified. The discovery of those trajectories that typically lead to under-performance will provide new information on key points in a program where intervention can be considered in a timely manner to prevent an unsatisfactory outcome at the end of the program. The variety of shared performance trajectories leading to successful outcomes of teacher readiness that emerge from the data, will translate into narratives of preservice teachers' performance experiences over the duration of their programs of study.

The vision to construct and examine these performance trajectories for individual preservice teachers has arisen as a discovery component of the GTPA workforce studies series with a common focus on classroom readiness (Wyatt-Smith et al., 2021; see Chap. 17 for an overview of these studies). While the full suite of performance data is available within the large group of participating universities that have implemented the GTPA to date, the data within a single university are generally stored in disparate digital systems and the creation of the final longitudinal dataset is not straight forward. Likewise, the statistical methodology required for analysis of the performance trajectories that typically consist of irregular assessment events and duration dependent on a preservice teacher's chosen ITE program and their individual circumstances, requires purposeful development.

In this chapter, we discuss the innovation in methodology needed to operationalise this vision for ITE performance data aggregated within a university, and then aggregated at scale across multiple universities. The next section provides the context of our research in international literature on longitudinal research in the domain of initial teacher education and preparation for teaching. This is followed by a description of the data needed to create the longitudinal dataset on preservice teacher characteristics and longitudinal performance throughout the ITE program. The steps and barriers encountered in this process are then identified and described. These include identifying and accessing the data types recorded by a university that are required to constitute the trajectories; building the data infrastructure that will support linking the data in a time sequence; and developing the innovative analytic approach that is suitable for profiling complex longitudinal sequence trajectories.

16.2 Going to Scale in Initial Teacher Education Research

International research in the field of teacher education and preparation for the workforce has traditionally been dominated by small-scale case studies and satisfaction surveys, the latter involving students and employers. Limited longitudinal research has focused on the effectiveness of teachers after entering the workforce, addressing topics of competence and teaching opinions (Brouwer & Korthagen, 2005; Mayer et al., 2017), the likelihood of staying in the teaching profession (Alexander et al., 2020; Latham et al., 2015), and the impact of ITE programs on teaching practice in the classroom (Morris & Hiebert, 2017). In response to the move to reform teacher preparation programs in the United States (NCATE, 2010), several studies have used large-scale empirical data and sophisticated value-added models to investigate the longitudinal performance of preservice teachers in ITE programs and how this predicts later teaching effectiveness measured by students' learning outcomes (Chen et al., 2019; Henry et al., 2013; Klemenz et al., 2019). Such studies rely on standardised teaching performance assessments (TPAs) to provide a final measure of performance for preservice teachers before they exit ITE programs, and they also have the capacity to link data from ITE program performances to students' test scores in teachers' classrooms.

Unlike the United States' schooling system, data on preservice teacher assessments in Australia are currently not systematically linked to students' test scores in the classroom and so the value-added approach is not feasible, at the time of writing. While understanding the impact of ITE programs and the effectiveness of preservice teacher preparedness on student learning is of considerable significance for policy and research in Australia, it is also critical to ensure that preservice teachers achieve the acceptable standard of profession readiness to teach before they enter the workforce (see Chap. 2). In the Australian teacher education landscape, Rowan et al. (2015) have called for longitudinal research to investigate which factors create 'the most effective graduates'. Potential factors identified include specific teacher preparation programs, entry characteristics of preservice teachers, graduate teachers' exit characteristics, and graduate teachers' literacy and numeracy levels. Mayer et al. (2017) investigated questions relating to the effectiveness of teacher education in Australia in a large longitudinal study from 2012 to 2014, that utilised data collected from surveys of ITE graduates and case studies of early school experiences. Few other studies have taken this line of inquiry.

Heinz (2013) used historical data from a university in Ireland to explore the impact of preservice teacher characteristics and prior teaching experience on ITE performance, measured by overall teaching practice and academic grades, in the final term of a single ITE program. However, the study did not consider the preservice teachers' ITE performance trajectory leading to these final grades. More recently, Corcoran and O'Flaherty (2017) observed that there was "a paucity of evidence examining the relationship between student achievement and overall achievement growth" (p. 666). They claimed that their study was the first to examine preservice

teachers' longitudinal academic growth and the association with academic performance on ITE program entry. They conducted a four-year longitudinal study on performance, measured by grade point average (GPA) across eight semesters of a teacher preparation program in the Republic of Ireland, using a latent growth model anchored by performance data at entry to the program. Findings included a moderate correlation between students' prior academic achievement in high school and their subsequent academic grades in their teacher preparation program. This study did not include a final summative measure of competence and so it was not possible to connect performance at entry or during the program with readiness to teach on completion of the program.

Our research addresses this gap in the literature by developing a methodology that includes building the digital infrastructure required to create trajectories of performance for all individual preservice teachers in multiple ITE programs; customising the statistical techniques for analysing the longitudinal performance data; and designing the approach to visualising patterns in the performance trajectories. Data defining the performance trajectories are comprised of entry characteristics of the preservice teachers and outcomes from all mandatory performance assessments that are undertaken during an ITE program in Australia. This includes scores from assessment of professional practice in schools, GPA scores from assessment of academic units completed in each term, and the scores from mandatory assessment of preservice teachers' literacy and numeracy skills. The final performance measure in the trajectory is the GTPA score to reflect the preservice teachers' readiness to teach.

This work expands notably on the Corcoran and O'Flaherty (2017) study by including the complete series of common assessments required to be undertaken by preservice teachers in an ITE program culminating with the GTPA score that has been benchmarked against a standard of profession readiness. The performance trajectory for a single preservice teacher is represented by a time series of multiple assessment outcomes of different data types that are recorded at irregular intervals. The number, timing and order of performance scores in a trajectory can differ for preservice teachers in the same ITE program cohort. This can occur when assessment tasks need to be repeated because the first attempt is not completed to a satisfactory level. For these reasons, standard forms of analytic techniques such as growth models (Bollen & Curran, 2006; Goldstein, 2011) or multi-channel sequence analysis (Studer & Ritschard, 2016) may not provide the most intuitive specifications for these trajectories and so a novel analytic approach is proposed.

16.3 Methodology

In this section, the approaches taken to building the data infrastructure required to link the performance data in a time series of events, and to develop the analytic techniques suitable for profiling complex longitudinal performance trajectories, are described. Results from analysis of actual preservice teacher performance trajectories are not presented or discussed here.

16.3.1 Description of Data Categories

Demographic data collected at program entry include age at enrolment, gender, Indigenous status, citizenship, country of birth, language spoken at home, remoteness of residential location prior to enrolment, and parents' education. Indicators of performance at entry are basis of admission (academic or non-academic entry, for example, mature age entry, prior experience) and entry rank. In Australia, this varies by state and territory and includes the Australian Tertiary Admissions Rank (ATAR).[2]

ITE programs in Australia require mandatory assessment of the following: school-based teaching practice experience that commence in the first year of the program, discussed below; satisfactory completion of the mandatory literacy and numeracy test for initial teacher education (LANTITE), undertaken online; assessment of academic course work, measured by GPA each term; and from 2018, a final teaching performance assessment measured by an officially endorsed TPA.

LANTITE is an ITE policy-driven intervention administered by the Australian Council for Educational Research (ACER). It was introduced to strengthen public confidence in the personal literacy and numeracy capabilities of beginning teachers. An overall passing grade on both the literacy and numeracy tests is a prerequisite for graduation (see ACER, 2020). Some states and territories require this overall grade on LANTITE to be achieved before preservice teachers complete their final practicum, and some ITE providers may require a satisfactory result as part of their course entry requirements. Students have up to three opportunities to sit each of the literacy and numeracy tests to achieve a satisfactory score.

Professional teaching experience consists of supervised teaching practice undertaken over a sustained period in a recognised school setting. In an undergraduate ITE program, preservice teachers are required to attend a minimum of 80 days professional experience in an undergraduate program, often completed over four blocks of 20 days, or a minimum of 60 days in a postgraduate program (Australian Institute for Teaching and School Leadership [AITSL], 2015; revised 2018, 2019). Consequently, the timing and number of attempts to achieve a satisfactory outcome in LANTITE and professional experience assessments can vary among preservice teachers, as can the timing of completion of the GTPA. This means that the length and order of assessments of preservice teacher performance trajectories will not be consistent, even within the same ITE program cohort. Readers should also be aware that an overall pass on each professional experience placement in a school is required for program completion. This mix of mandated assessments calls for novel approaches to creating and analysing preservice teacher performance trajectories.

[2] Australian Tertiary Admissions Rank (ATAR) is a rank that ranges from 0 to 99.95. It indicates a student's position relative to their year group cohort. See https://www.uac.edu.au/future-applicants/atar.

16.4 Compiling the Longitudinal Data for a Cohort of Preservice Teachers

The performance trajectories described above can be constructed for large-scale analysis across participating ITE programs in which the GTPA is implemented. At the time of writing, a large number of Australian universities are implementing the GTPA and more than 15,000 preservice teachers will have completed the GTPA prior to December 2020 (see ILSTE, 2020). There are considerable challenges to collating ITE program cohort census[3] data from multiple institutions, one of which is identifying the source locations of the data fields required.

The GTPA outcomes and the other data fields specified above, typically exist within the digital data systems of each university and may be stored in a range of physical locations and administrative units, including central student administration and education faculties. Further, we highlight that the data do not have standard cross-institution formats and the format can vary considerably among universities. Therefore, the user-friendly database tool developed for the purpose of collecting the necessary data categories from multiple universities needed to be flexible enough to enable import of non-standard formats that can be transformed into the consistent design specifications for the final longitudinal master dataset.

The solution developed for collating and transferring the ITE program performance data from multiple universities was provided in two parts. First was the provision of a Microsoft Excel workbook with six different spreadsheet templates that contained the list of data fields and specified fixed input values, and the second was a user-friendly database software utility that was developed to transfer the populated spreadsheets into the master database located at the research site. The data infrastructure custom-designed for this purpose is an extension of the software system and data warehouse known as Evidence for Quality in Initial Teacher Education (EQuITE), that was constructed in 2019 to compile, store and analyse data on cohorts of preservice teachers from the participating universities (see ILSTE, 2020).

The provision of the Microsoft Excel workbook and spreadsheet templates, along with a data dictionary for all the data fields requested, provides the university data custodians with clear guidelines on how the data should be prepared for submission. The six separate spreadsheet templates grouped the data fields according to how likely they were to appear in the same university system, and included:

1. The *Entry Data* group: all demographic characteristics and performance measures on entry to the program, and program details, for example, program code, campus postcode.
2. The *Completion Data* group: degree completion status and course completion date (term code) if relevant.
3. The *GPA by Term* group: GPA (0–7) and corresponding term code.

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[3] The program cohort census refers to the collection of information on all preservice teachers, who entered an ITE program in the same year and semester, for the duration of their enrollment in the program.

4. The *Professional Practice by Term* group: unit code, term code and score (0/1) for each attempt.
5. The *LANTITE by Term* group: test date, literacy attempt number, literacy score (0/1), numeracy attempt number, numeracy score (0/1).
6. The *GTPA by Term* group: unit code, term code and score (0/1).

Each of these data groups includes a student identifier. Groups (3), (4) and (5) have multiple entries for a single student and each performance outcome is associated with a term code, aligned with a period on the calendar, that identifies the position of the assessment event in the series of performance outcomes that define an individual's trajectory. Each preservice teacher's performance trajectory is then created by linking the data fields in each group by the student identifier. The completion data in group (2) are important as they specify the term in which the preservice teacher exited from the ITE program. This may be on completion of the entire ITE program or at an earlier date. The degree completion status indicates the reason for early exit from the program including, for example, transfer to a different course or program of study or personal reasons. Presentation of the data in six different spreadsheets means that the university can focus on extracting data for each type of assessment separately, which has been shown to be necessary where the data are located across different database systems.

While the range of potential values for a data field are not standardised across universities, consistency of data values is critical when the data is imported to the master database and for analysis, as suggested earlier. To ensure that data values are consistent before transfer to the master database, a user-friendly Filemaker data import tool was developed for use within a university, enabling straight forward importation of the six data spreadsheets into a university database that is later transferred to the master file at the research site. The availability of a data field validation function at data entry to the Filemaker tool ensures that the values are translated into the format required to meet the master database specifications and, in this way, the combined data from all universities are stored in the same consistent format ready for data analysis.

Secure transfer of the sensitive data is undertaken by first supporting universities to assemble the data in the six spreadsheets on their own computer systems and then supporting the input of the spreadsheets onto the user-friendly and structured Filemaker database that is located on a computer onsite at the university. To protect the privacy and confidentiality of preservice teachers' data and partnering universities' data, the preservice teacher identifiers are encrypted within the Filemaker database before the data file is uploaded to a secure folder on AARNet Cloudstor. Raw submitted data files are transferred from the Cloudstor folders to secure folders at the research site with restricted access. Placing the data files in encrypted volumes on secure drives will enhance encryption-at-rest. The data spreadsheets are linked using the encrypted identifier combined with term code, by the project research staff following submission by the university. Each row of linked data represents a preservice teacher's complete record of program enrolment and performance trajectory. Linked records for the preservice teachers are then pooled into one linked master database for analysis.

16.5 Analytic Method

Following the process described above, the longitudinal performance data are now represented as a unified list of program assessment events for each preservice teacher. An event is defined to have the attributes of:

1. Event type.
2. Program code.
3. Preservice teacher identifier (encrypted).
4. Event end date, which is derived from a standardised method of assigning a calendar time point to events with varying durations.
5. Half Years Since Admission (t_i), which transforms calendar event end date to a relative time since student admission (where i indicates the position of the event in the longitudinal list of events for an individual, that is the ith event for a single preservice teacher, $i = 1$ represents the first assessment event).
6. Increment of Result (I_i), representing the change in value of an assessment score between event i and the previous event, for each assessment type:
   a. A *decrease* in value is represented by $I_i = -1$ for a binary variable, or the negative change in an interval variable,
   b. An *increase* in value is represented by $I_i = +1$ for a binary variable, or the positive change in an interval variable, such as GPA,
   c. *No change*: $I_i = 0$. This increment value is used when an event is recorded for the individual, but the result is neither a pass nor a fail. This can happen when results are incomplete, for example. It does not mean that there was no event.

This list of preservice teacher program events provides a unified timeline of quantitative changes since the time of admission to the ITE program without the need for them to occur at regular or synchronised times, or without the need for a specific event to occur at all. For a broad cross-section of preservice teachers enrolled in a variety of program types within potentially different universities, in situations where preservice teachers may or may not attempt various course elements, and where some individuals will certainly make multiple attempts on certain units, this *event model* is more feasible and straight forward to construct than a panel dataset in which observations on multiple variables are recorded at consistent regular time intervals. The list of program events for all preservice teachers is also linked to the Entry Data defined as group (1), and the preservice teacher Completion Data defined as group (2).

The multi-channel longitudinal event data being investigated here are not presented as typical sequences of state transitions at regular intervals. Instead, multiple events often occur at the same time, and time periods can appear with no assessment observations. These considerations make potential statistical methods, such as *event sequence analysis* and *latent growth modelling* approaches, often used for analysis of longitudinal data in the social sciences, more difficult to apply. *Event history analysis* is another statistical approach used for analysing longitudinal social

data where modelling the time until a single event occurs is of interest, but this is not the focus of the research described in this chapter. We have, therefore, proposed a different methodology, often applied for research in the physical sciences, that is more suitable for profiling the unique types of preservice teacher performance trajectories, in a three-stage approach as outlined below:

Stage 1: Transform the sequence of longitudinal program events into non-temporal variables that nevertheless still describe the trajectory of events.

Stage 2: Group preservice teachers by similar patterns in the non-temporal variables using a cluster analysis approach.

Stage 3: Reconstruct the typical trajectory of program events for preservice teachers grouped within each of the clusters identified in Stage 2.

16.5.1 Stage 1: Transformation of Longitudinal Performance Variables

Methods for transforming longitudinal data have been used effectively in the physical sciences to capture time-independent measurements of time-dependent behaviours from transient processes (see Ducros et al., 2009; Luo et al., 2006; Sisemore et al., 2017). The method implemented in this work relies on the transformation of the preservice teacher trajectory of program events, into a set of parameters that capture much of the temporal distribution information for that trajectory. The set of parameter values for each type of assessment performance trajectory is fixed and defines the distribution of the number of terms from program entry until a decrease, or increase, in the value of the assessment event occurs. This transformed representation of the time dimension into a set of single value parameters for each preservice teacher, allows utilisation of more straight-forward statistical techniques for clustering of what was originally time series data.

16.5.2 Stage 2: Identifying Patterns in the Preservice Teacher Performance Trajectories

The aim of Stage 2 analysis is to identify groups of preservice teachers within ITE program cohorts who share similar trajectories of performance, and then to characterise these groups using other static variables from the sets of entry and exit performance measures as well as demographic dimensions. Cluster analysis can be used for this purpose where an individual's set of observations contains just the distribution parameters derived from the longitudinal variables, that is, parameters that represent transformations of outcomes for GPA, professional experience assessments, LANTITE tests, and the GTPA. When group membership has been assigned to the observations for each preservice teacher, the mean values of all variables across

all individuals in a group are calculated, including for the entry performance and completion variables, the demographic variables and the variables containing the distribution parameters. This provides an empirical description of the most common transformed performance trajectories associated with each group.

16.5.3 Stage 3: Illustrative Narratives of Preservice Teacher Performance Trajectories

The typical performance trajectory of preservice teachers in each identified group can then be reconstructed from the mean values of the parameter variables computed in Stage 2. Recall that a set of parameters describes the temporal distributions for each assessment type, meaning that these distributions can be simulated from the flexibly shaped generalised lambda distributions (Ramberg et al., 1979) that correspond to the set of mean parameter values associated with each group. In other words, the set of longitudinal performance timelines for the typical preservice teacher associated with each group can be generated. These performance trajectories can then be visualised on a timeline from program entry to exit and interpreted to provide narratives for the preservice teacher performance trajectories associated with each group. Two illustrative narratives associated with two different patterns of performance trajectories are presented below.

Narrative 1

Preservice teachers in group 1 do not achieve a successful outcome. They share a degree of early success in their professional placements and manage to attain passing GPAs after the first two years of enrolment (for 70% of the preservice teachers in the group). Following this period, the failure rate in professional placements spikes, and GPA declines steadily. Most individuals in this group exit the program prior to attempting LANTITE or the GTPA, though a small number do attempt LANTITE unsuccessfully at the end of their 4th year.

Narrative 2

Preservice teachers in group 2 share early success in their professional placements and also attain solid GPAs during their first three years of enrolment. In the 7th term (fourth year), a confluence of LANTITE failures in both literacy and numeracy, and failures in professional placements occurs. During the 8th term approximately 90% of preservice teachers in this group pass LANTITE (both literacy and numeracy tests), but some still record LANTITE failures into their 9th term. At this stage of the program, 10% of the group fail their first GTPA attempt. Finally, 43% of this group successfully complete the GTPA in their 10th half year.

16.6 Discussion

The preparation of high-quality preservice teachers who are effective in improving the learning outcomes of students in their classrooms when they enter the workforce, is of high significance to the education of a nation's young people and government policy. Brabeck et al. (2016) recognised that "The need for evidence of high-quality teacher candidates arises from the ethical and professional responsibility of teacher-education programs to assure the public that they are preparing effective teachers for diverse learners" (p. 161). An assessment of the summative processes that reflects the quality of profession readiness of preservice teachers prior to the completion of an initial teacher education program is a necessary requirement for providing the evidence that an accepted standard has been achieved. In Australia, such teaching performance assessments have been mandatory in ITE programs since 2019. For universities implementing the GTPA, considerable data is already available on the profession readiness of preservice teachers before they graduate.

The GTPA data provides evidence on who is ready to teach effectively, given that preservice teachers sit the assessment as a culminating or final summative competence assessment. Questions remain about the entry characteristics and performance experiences of individuals who separate early from the ITE program or who do not complete the GTPA and other mandatory assessments to the standard required. With the GTPA, as a validated and accredited TPA, providing data on workforce readiness, focus can now shift towards uncovering the performance progression pathways that lead to successful completion and graduation, and to identifying the critical stages in the ITE program where intervention can be provided to prevent early separation. This information will provide universities with the evidence to lift the quality of their ITE programs and increase the retention of preservice teachers who have the potential to become effective teachers.

The data needed to investigate performance progression in ITE programs exist as administrative data within universities. However, data systems within Australian universities do not typically store the data on performances for multiple assessments in the longitudinal sequence format needed for analysis. There are considerable challenges in extracting the data from disparate systems, linking the administrative data by individual identifier and date of assessment, and then combining the linked data from multiple universities to create the final longitudinal dataset that can be utilised to analyse preservice teacher performance trajectories that lead to successful completion or early separation from ITE programs. This chapter has described how we have met these challenges through partnerships with universities, to develop an innovative and flexible digital infrastructure to create the longitudinal performance trajectory for each preservice teacher. The digital infrastructure provides the means to assemble the longitudinal data on individuals' performance trajectories, but this is just one stage in the endeavour to compile the evidence for progression to profession readiness.

16.7 Conclusion

The illustrative preservice teacher performance trajectories presented in the chapter consist of multiple time series of mandatory assessment outcomes of different data types that are recorded at irregular intervals, and hence the method of analysis is non-standard and not straightforward. The analyses of these unique series of longitudinal performance data requires a novel analytic method that allows the results to be presented and visualised in a way that is meaningful to experts in teacher education research and teacher educators. We have taken an approach traditionally used in physical science research to describe patterns in complex performance trajectory data across the typical time periods for ITE programs, and to identify key factors related to each pattern. Our work expands notably on previous studies in initial teacher preparation by including data on the complete series of mandatory performance assessments required to be undertaken by preservice teachers, culminating with the GTPA score as the final measure of profession readiness. The analytic methodology has been adapted to flexibly model the assessment processes inherent in Australian ITE programs, and the patterns of performance progression can be visually presented along with narratives that describe the performance experiences of preservice teachers.

The data structure and analytic methods proposed in this chapter enable new investigation of questions on the effectiveness of initial teacher education programs in producing profession ready teachers. The data exists in universities that implement the GTPA, and we have taken a large step forward in developing and implementing methodology to harness the evidence for analysing issues of quality and progression in teacher preparation.

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Chapter 17
Disrupting Teacher Education for Sustainable Change

Claire Wyatt-Smith and Lenore Adie

Abstract The final chapter revisits the key questions explored in the book and from this vantage point asserts that: *We have to get teaching performance assessments (TPAs) right*. Our pursuit has been to connect standards, the evaluative expertise of teacher educators, and evidence. The term evidence is taken to include both evidence of standards and standards of evidence. Here, the Graduate Teacher Performance Assessment (GTPA) is presented as part of longitudinal research that involves custom designing digital architecture and utilising system thinking. This includes the vital approach to cross-institutional moderation online (CIM-Online™) and data visualisation of a type that supports collaborative action at scale and enables the agentic action of teacher educators. The chapter introduces an interconnected set of pre-conditions that constitute a sustainable approach to culture change in teacher education. Finally, the chapter proposes what is required in order to get TPAs right.

17.1 Introduction

In this book we have probed some fundamental questions about the implementation of teaching performance assessments (TPAs) intended to leverage improvement in teaching quality. We have taken up the question: *What does teacher education reform look like when evaluative expertise and issues of quality, evidence, and agency are placed centre stage?* In the provocations we have heard the thinking of leading researchers and educators in response to a major question of our time: *What are the social, digital and environmental counter narratives, the alternate responses, and the blind spots in education made apparent in the COVID-19 crisis that could*

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be incorporated in thinking about and addressing issues for transforming teacher education?

While reforming teacher education has long been a contested topic, most would agree that the term quality is often used, though seldom defined. Its meaning remains elusive. In part, this can be explained through a sociocultural lens in which the act of assessing—determining quality—is an historical and contextual act, bounded by place and time, and interactions among people. For this reason, the quality of a teacher and teaching can and does vary significantly over time and place, reflecting different expectations and values. Quality is not a fixed measure.

A major challenge for us in contemporary times is to have a national conversation about teaching quality and the demonstration of professional competence at the point of completing a preparation program. Put simply, most people want to have confidence in the competence and capabilities of their child's teacher. They want to know that their child's teacher is setting their child up for success and that this is a realistic expectation. An expectation of professional competence is not particular to teaching: patients want to know they have a good doctor; litigants want to know they have the best lawyer. However, referring to Australia, until the introduction of TPAs, there was no approved exit or terminal assessment and no established standard intended as a common reference point or benchmark for gauging graduate readiness for classroom practice. Further, there was no quality assurance system for verifying a common standard of readiness across universities, or even across programs within universities.

Here we separate out standards applied to program preparation where regulatory authorities and universities can audit how standards have been addressed in teaching programs. While this can be a useful exercise to show points at which aspects of the standard are taught explicitly and even practised and assessed, it can be unhelpful when this is reduced to a technicist checklist. How standards are conceptualised—their nature and function—is of importance to avoid the reductive use of narrowly defined standards or aspects of practices that are assessed in isolation or even outside of actual practice.

Our focus is on the nature and function of the Graduate Teacher Performance Assessment (GTPA®)[1] and the accompanying standard to demonstrate professional competence. This marks a strengthened focus on standards as they are demonstrated both as inputs in program design and teaching, and standards evident in preservice teachers' professional practice on completion of the program. The significance of the move to TPAs was that it opened the door to exploring authentic assessment of teaching competence in an actual classroom context at the point of completing a preparation program and that competence could be assessed against an established or agreed standard.

As we review the contributions of the chapters, we observe some rich portrayals of the experience of change as it shapes and reshapes ways of *thinking* about, *speaking*

[1] Acknowledgment: The Graduate Teacher Performance Assessment (GTPA®) was created by the Institute for Learning Sciences and Teacher Education, Australian Catholic University and has been implemented in a Collective of Higher Education Institutions in Australia (graduatetpa.com).

about, and *doing* teacher education. The chapters present insights into how the GTPA as a cultural disruptor has been taken up as a topic of inquiry through national collaboration in Australian teacher education. In some sense, the working through of change can be understood as a type of experiment in reform through collaboration and networks. The chapters lay out the intellectual, experiential and personal resources and related expertise brought to a new contested policy context in the form of TPAs. The accounts of teacher education renewal in the cameos of practice presented in the preceding chapters and our experience in the development and implementation of the GTPA provide contexts of practice that will be recognisable in many respects to international colleagues. We have used Australia as a case instance of the introduction of TPAs into initial teacher education and offer these accounts as of potential relevance beyond our site of origin.

The transformative potential of TPAs for discovery work as culture change is a recurring theme in this book. It has called forth new identities, new ways of working with and through technology, and new interactions within and across universities. Our critical enquiries into the culture and practice of teacher education have provided evidence of the power of collaborative thinking to confront historic practices and transform teacher education practice. We have incorporated learning from others outside teacher education to inform our understanding of a competence assessment and profession readiness. Thinking about how teacher educators can act with agency to give an account of their practice, inform policy, and respond to criticisms of the quality of teachers has led to the development of digital infrastructure. The latter has allowed the GTPA research to scale up, generating data that is useful for program review and renewal as well as the elements for ensuring sustainability of this change culture.

17.2 GTPA Longitudinal Studies in Initial Teacher Education

In 2021, seven years after the release of the TEMAG Report (Craven et al., 2014), we recognise that the accepted recommendation to introduce TPAs has the most potential for positive collaborative reform in teacher education. It is the best chance for the profession to reclaim accountability for the profession. This stance moves beyond the design of the assessment to include the collaborative work in producing large-scale data and the use of digital infrastructure to support this work. In the remainder of this chapter, we reflect on what we have learnt about sustainable culture change in teacher education, its complexities and challenges; and what we have learnt about the enabling conditions that may sustain culture change.

From the beginning, the GTPA was conceptualised as a cornerstone in a workforce study series, with two longitudinal studies underway. The first study, titled *Establishing readiness in teacher education*, has involved the design, validation, and standard-setting for the GTPA as a competence assessment (Adie & Wyatt-Smith, ;

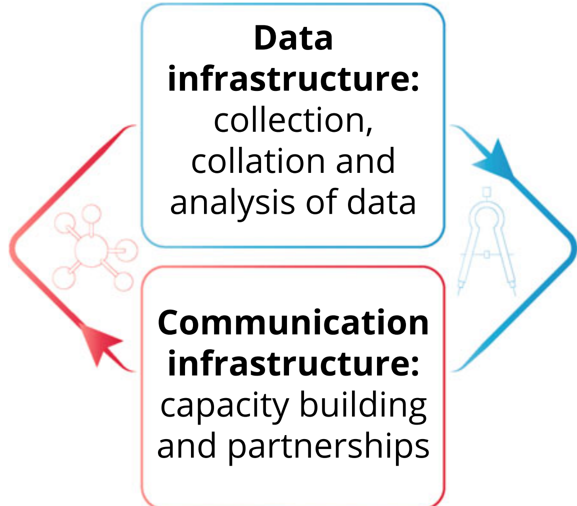

Fig. 17.1 Digital architecture supporting judgement-making online and reporting in the workforce studies series

Wyatt-Smith & Adie, 2018; Wyatt-Smith et al., 2020) and related cross-institutional moderation. It is the focus of this book. The second study, titled *Quality of initial teacher education through longitudinal analysis of linked datasets* (Wyatt-Smith et al., 2021), examines characteristics of teacher education candidates and their trajectories through an education degree program from entry to exit as they progress through a series of hurdle assessments, including the GTPA. Also included are a national assessment of personal literacy and numeracy,[2] and school-based assessments of professional experience placements scheduled over the program of study (see Chap. 16 for further information on the longitudinal study).

For the study series, we recognised that going to scale (geographic spread and the number of participating universities) required the design and development of new digital architecture to examine the impact over time of the competence assessment on teacher education and its utility for determining graduate readiness. The term *digital architecture* (Fig. 17.1) is taken to refer to:

1. The data infrastructure that was purpose-built. This includes a data warehouse for storing de-identified performance records against the common standard; an online scoring platform using the standard; and the GTPA application (app) customised for recording cohort performance at the criterion level.
2. The communication infrastructure that includes use of digital technologies to support online meetings and symposia for sharing learnings and reporting

[2] "The Literacy and Numeracy Test for Initial Teacher Education Students… is designed to assess initial teacher education students' personal literacy and numeracy skills to ensure teachers are well equipped to meet the demands of teaching and assist higher education providers, teacher employers and the general public to have increased confidence in the skills of graduating teachers… All students enrolled in an initial teacher education course (either undergraduate or postgraduate) will be expected to sit and meet the test standard prior to graduation" (Australian Council for Educational Research [ACER], 2020, para. 1, 3).

performance outcomes, and an online resource centre including samples that illustrate the required standard and materials used to calibrate judgement against a common standard.

Online cross-institutional moderation (CIM-Online™),[3] that incorporates the digital architecture, is an internationally distinctive feature of the work of the GTPA Collective (see Chap. 3). The teacher educators undertake calibration training and scoring, producing the data that form the basis for analyses and reporting on program quality and the application of the standard across universities. It is this data corpus that is used by the Institute for Learning Sciences and Teacher Education, Australian Catholic University, to prepare confidential, customised reports for each university. The reports present data showing performance scores at cohort level, drawing on demographic information about preservice teachers and program characteristics (for example, mode of delivery). The collection, collation and analysis of summative data reveals program quality both within and across programs. It also contributes to the policy intent of quality assuring graduates on entry to the workforce. Such quality assurance hinges on applying an established standard, recognised by the profession, and applied consistently across participating universities. For this reason, fidelity of implementation and maintaining the integrity of the assessment are essential preconditions for teacher educators, policy personnel, preservice teachers and regulatory authorities to have confidence in the fairness of assessment outcomes.

Beyond this policy intent, the use of digital architecture has offered the opportunity to break new ground. This involves using the performance data that was gathered initially for reporting the summative assessment result of profession readiness (Meets/Does not Meet), also for informing program review and improvement actions (formative purposes). The infrastructure is essential for teacher educators to access reports showing the effectiveness of programs in ways not previously available. They can see, for example, cohort and individual performance in planning, teaching and assessing as recognised core skills of professional practice. Using evidence, they also see the impact of programs and implementation approaches on preservice teacher competence. Data infrastructure and communication infrastructure promote assessment as collaborative inquiry through capacity building and partnerships in teacher education (Fig. 17.1).

The scale of the workforce studies, supported through the digital architecture, makes it possible to collect large-scale data and in turn 'speak' to policy using evidence. As suggested earlier, in Study One, the shift is away from TPAs as a compliance requirement, to the GTPA Collective of universities coming to work as a trusted group with expertise to use evidence and standards in new ways. In Study Two, the evidence produced makes it possible to identify the points of progression for particular candidates that present barriers to academic success. These have potential to allow more customised interventions at earlier points in time than was previously

[3] Acknowledgment: The online model of cross-institutional moderation (CIM-Online™) was conceptualised and developed by the authors of this chapter. The work has been supported by digital architects in the Institute for Learning Sciences and Teacher Education, Australian Catholic University.

possible. The evidence also provides teacher educators with corroborating information to show the characteristics of candidates and the related probabilities of success in particular programs. The spotlight can be on mode of delivery, timing and combination of assessments, and program outcomes for cohorts of special interest, taking account of demographic variables. This has involved new ways of *thinking, talking, doing* and *being* for teacher educators, researchers and policy personnel who have worked as a multidisciplinary team.

17.3 Pre-conditions for Sustainable Culture Change in Teacher Education

In the following section, we identify a set of nine pre-conditions for establishing and sustaining an approach to culture change in teacher education. These are offered provisionally as an emergent conceptual framing to guide actions and decisions related to conceptualising, designing and implementing complex performance assessments. In presenting this we draw on our first-hand experiences as we have tried to show in this book (Fig. 17.2).

The pre-conditions include:

1. ***A critical inquiry approach to the design and implementation of TPAs***. Data in and of itself is only useful once its meaning is interrogated and determined to be fit-for-purpose. A critical inquiry approach involves interrogation of empirical research literature to inform TPA design, validation processes and implementation decisions. It also involves ongoing quantitative and qualitative analyses of data collected from the scoring of TPAs for continual reflection on, and refinement of, TPA design and implementation processes. Critical inquiry takes into consideration site-specific variables of TPA implementation and intended uses of the data and related reports.
2. ***Rigorous processes for demonstrating validity and reliability of TPAs including the scoring rubric.*** Professional acceptance of a TPA hinges on the demonstrated alignment of the TPA and relevant professional and program standards. Also essential is agreement about conditions necessary for fidelity of implementation, protocols for resource and data collection, and procedures for effective communication. Validity is determined through close qualitative and quantitative analyses of the expected characteristics of competence that the assessment calls forth and also evidence from implementation in the field. Trials are an essential condition for TPAs to gain credibility and professional acceptance. Trialling should extend to the scoring rubric with data from the field needed to demonstrate its reliability.
3. ***A concerted focus on what is taken to be evidence of professional competence and its utility for the field of practice for both licensure (summative) and improvement (formative) purposes***. Historically, teacher education has lacked

Fig. 17.2 Pre-conditions for sustainable culture change in teacher education

an evidence base to address or counter criticisms of the quality of teacher education and graduate preparation. A distinctive feature of the approach to TPAs in this book is the deliberate move to use summative data for formative purposes to inform program design and improve teaching strategies. Only when both summative and formative purposes come into view as complementary can the teaching profession reclaim accountability for itself.

4. ***Working at scale***. The establishment of an evidence base to show the quality of teacher education requires large-scale data, collected across diverse contexts. It also requires longitudinal data to establish trends, to show changes and to show consistency in the application of the common standard. For sustainable change, the active collaboration with universities in this endeavour is essential.
5. ***Recognition of the complexity of the teacher education policy and practice landscape and standards***. Teaching is understood as a complex activity that is responsive to context and requires ongoing data gathering and decision-making

to meet student needs and progress learning. Teacher education practice and policy must be able to accommodate this diversity, preparing teachers able to meet professional standards and adaptable to the diverse contexts they will encounter as teachers. This calls for moving beyond standards as regulatory tools to the use of standards as a means to act with agency and inquire deeply into teaching practice.

6. ***The value of collective action and decision-making***. A TPA should have a necessary focus on measurable knowledge, skills and capabilities which are assembled in professional practice. One of the barriers to this has been that teacher education has occurred in silos with little communication across programs and institutions. Establishing a common standard can only be realised through the pooling of professional evaluative expertise with teacher educators at the table with policy personnel, school partners and other researchers. This requires dialogue—thinking, acting and making decisions together—informed by evidence and research in arriving at TPA design and implementation decisions.
7. ***Customised digital architecture (data and communication infrastructure).*** The implementation of TPAs across a wide range of geographic locations and the collection of large-scale data requires customised digital architecture. This includes processes to upload assessments and assessment data; undertake cross-institutional scoring and moderation of samples; analyse data and automate reporting of results using data visualisations. Infrastructure is also needed for data storage, transmission security and ethical and privacy protocols.
8. ***Principles and practices for cross-institutional moderation***. Both intra- and cross-institutional moderation are essential to establish judgement reliability and comparability in the application of a common standard for graduation and licensure as a teacher. CIM-Online involves teacher educators scoring samples using an established rubric. Teacher educators' experience and evaluative expertise are essential in this process, taking responsibility for applying the established standard.
9. ***The transformative potential of TPAs to stimulate professional learning*.** Professional learning associated with the development and implementation of TPAs and the use of generated data can become transformative when teacher educators use outcomes of TPA implementation in discussions about program design and its impact on preservice teacher learning.

We offer the framework of pre-conditions to others who are considering, or are in the process of implementing, a TPA or other complex assessment of competence into their programs. It provides a holistic approach to think about the change processes and examine impacts of change that are inevitable in introducing TPAs.

17.4 The Next Move

Yes, we have to get TPAs right. Throughout this book we recognise that a significant policy shift, such as occurred in the introduction of TPAs in Australia, requires radical rethinking that goes well beyond the design of a TPA. The transformative potential of TPAs in teacher education is a recurring theme in this book, as is the need to attend to the range of impacts that flow from such a shift. In our experience this involves collaborative action to carry forward discovery work by teacher educators motivated to improve the learning of preservice teachers and in turn, school students. Beyond this, it involves significant investment of human and material resources, noting that there has been a lack of government investment at national and state levels in Australia. A serious national commitment enabling this shift—culture change and the turn to standards and evidence—calls for coordinated strategies across policy, practice and research. We reflect here that Australia is facing a further review of teacher education in 2021 with fractures in implementation of the TEMAG recommendations now crystal clear.

It is essential that impacts of the shift are monitored as they effect teacher educators, preservice teachers, school personnel and those responsible for implementing policy in teacher education. Some of these impacts of reviews and change in teacher education are strikingly clear while others are more subtle. CIM-Online, as discussed in Chap. 3, is a significant change resulting from the Research and Development Program work including the development of digital infrastructure. Another change is that we now have evidence to show program quality as exemplified through GTPA samples. Other advances include the considerable strengthening of collaborations among teacher educators, policy personnel and researchers. Over the last six years, across the GTPA Collective, conversations have changed. We now talk in-person and online, in formal and informal meetings, about what constitutes evidence as quality, what are the characteristics of a quality ITE program and what counts as evidence of professional competence at completion of preparation. We talk about inferring meaning from data and using it as evidence of program effectiveness. These conversations open up opportunities to reflect on other topics such as evaluative expertise, the application of standards, and professional judgement. In our recent conversations we have concentrated on the application of the use of the data to inform program review and curriculum renewal in developing impact case studies of culture change in teacher education.

Against this backdrop, we recognise the pervasive calls for evidence by governments, industry and the public to assess quality and track changes over time. Teacher education is not exempt from these forces. As mentioned earlier in Chap. 2, engagement with the TEMAG reform agenda has been uneven across the country. A consequence of this, as mentioned above, is that in 2021, seven years after the most recent review of teacher education (see discussions of TEMAG) a further review has been heralded. The declared motivation for the review is to return Australia to the top group

of education nations. This includes a laser-like focus on "quality teaching, particularly initial teacher education, curriculum and assessment" (Tudge, 2021, n.p.). The following excerpts from the minister's speech make this clear:

> … some teachers are still graduating from their courses insufficiently prepared to teach in a classroom either because there has been too much focus on theory at the expense of practice, or because evidence-based teaching methods are not taught. I hear this consistently from school principals and graduates alike…
>
> The next evolution of reforms is needed, to build from the TEMAG reforms. I will soon be launching a review to help shape such reforms. This review will investigate where there is still further work to do to ensure that all ITE courses are high-quality and adequately prepare our teachers to be effective from day one. (Tudge, 2021, n.p.)

The challenge facing teacher education is how to generate evidence that standards are being met and that preparation programs are high quality. Teacher education has the opportunity to satisfy *standards of evidence* and to produce *evidence of standards* to show that quality graduates are entering classrooms. Getting TPAs right is central to professionalising teacher education.

17.5 What is Involved in Getting TPAs Right?

We hold the position that getting TPAs right involves rigorous data-informed processes supported through digital architecture and input from a diverse range of specialists across different fields. The TPA is not just another assessment. The purpose and consequences of a TPA are far more significant than other assessments completed in a teacher education program. Based on this stance, getting TPAs right has to involve all aspects of approving, designing, implementing, and scoring TPAs and using TPA-generated data for improvement purposes.

Evidence of demonstrated comparability in what counts as the passing standard in initial teacher education is a non-negotiable expectation in getting TPAs right. This is essential for the Australian public to have confidence in the quality of education systems and the quality of graduates entering classrooms. Without a focus on comparability and rigorous mechanisms for demonstrating that it is being achieved across teacher education providers, we could simply revert to each university having their own standard, offering no evidence of consistent expectations of quality across the country. This is not arguing for standardising programs; rather, we assert that programs must take account of demographic variables and candidates must be developed professionally with the knowledge, skills and dispositions to be responsive to diverse cohorts of students and contexts.

It is time for Australia to make transparent a common or agreed standard of graduate readiness that applies irrespective of location and mode of preparation. Cross-institutional moderation can be fundamental to achieving this goal where rigorous quality assurance systems and processes are built into how it is designed and implemented. We call for moving beyond social moderation to more sophisticated moderation processes that combine qualitative processes with statistical analyses. Social

moderation can lapse into talk and interactions intended to achieve consensus about a grade. This is a wide berth away from an intent to demonstrate reliability of judgement against an established standard. This is not an argument for statistical moderation, rather it is an argument for the combination of social and statistical moderation, data analytics, digital architecture and the collaboration of cross-disciplinary experts. A weakly framed position on moderation is likely to undermine the prospect for delivering the promise of TEMAG to lead to reform in teacher education that includes the strengthening of quality assurance of graduate readiness.

Currently teacher education in Australia lacks an agreed methodology for benchmarking graduate quality on completion of a program. Also lacking is a methodology for establishing the comparative strengths of teacher education programs, both within and across universities. In the GTPA Collective, CIM-Online functions as a form of benchmarking. As discussed in Chap. 3, the output of GTPA CIM-Online includes (1) reports of evidence about the application of a common standard across participating universities, and (2) reports of program performance at the cohort level. These reports are encrypted and sent securely online going directly into the hands of Deans, Program Directors and other teacher educators across the country. They provide reliable evidence showing the application of the established standard in their programs and their relative strengths and possible areas for improvement. Teacher educators' engagement with and use of the reports is dependent in large part on their expertise in reading evidence or performance data presented through a range of data visualisations.

The experience of the GTPA shows that getting TPAs right will involve building data literacy in the teacher education workforce, including developing expertise in how to read or interpret such evidence. It will also involve building capability in how to apply the inferred meaning of the data to inform curriculum review and program renewal. By extension, the role of the teacher educator could extend to program evaluation. We propose that this is a role that could be undertaken with optimal effect when it involves and engages colleagues in the schooling sector, and in particular, principals and mentor teachers.

To track the movement of the standard over time requires a strong position on cross-institutional moderation that includes the provision for anchor samples. We know that standards can rise and fall. Unless attention is paid to capturing this movement, the case could be made that it was easier to graduate from teacher education last year or the year before. This brings into play issues of fairness in tests of graduate readiness to enter teaching. Legal precedence for cases contesting grading decisions in the case of the Educative Teacher Performance Assessment (edTPA) and Performance Assessment for California Teachers (PACT) are instructive for Australia (see Wyatt-Smith et al., forthcoming). From our experiences in the research, policy and practice of moderation, including in several universities and the schooling sector, the focus should be sharply on judgement and analysis to demonstrate judgement reliability or comparability. This recognises the need to also attend to evidence of rater severity and lenience.

While a strong position on moderation and cross-institutional moderation was not a feature of the move to TPAs in Australia, our research has shown its importance

as well as the benefits of investing in digital architecture for supporting universities to demonstrate reliability. A light touch interest in, and regard for, the potential of moderation could undermine current efforts to build public confidence in what graduate readiness looks like. Policy attention to rigorous cross-institutional moderation and use of the evidence it generates are linchpin to developing public confidence in teacher education.

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Glossary

Assessment Literacy An "individual's understandings of the fundamental assessment concepts and procedures deemed likely to influence educational decisions" (Popham, 2011, p. 267). Assessment literacy can also be influenced by dispositions and by context (social, cultural, historical, political) including education policy requirements.

Australian Professional Standards for Teachers (APST) The Australian Professional Standards for Teachers were developed by the Australian Institute for Teaching and School Leadership (AITSL). They encompass seven Standards that establish "what teachers should know and be able to do" (AITSL, 2011, p. 4). They are described as "interconnected, interdependent and overlapping" (AITSL, 2011, p. 4). The Standards comprise three domains of teaching: professional knowledge, professional practice and professional engagement.

Benchmark A point of reference, yardstick or level of quality against which performance can be measured.

Benchmarking The process of measuring performance against the performance of others using a common or established standard.

Calibration Training of raters to achieve high levels of consistency in using an established standard to arrive at a judgement of quality or score. Calibration can incorporate decision aids that support judgement processes. These can include (1) exemplars selected to illustrate characteristics of the standard and (2) cognitive commentaries that seek to make available the basis of judgement, including how characteristics of performance were combined in arriving at an overall judgement.

Complex Performance Assessment These involve demonstration of the knowledge, skills, practices and decision-making recognisable in the performance of professionals in a given field.

Cross-Institutional Moderation (CIM-Online™) This process involves assessors rating and recording scores on authentic samples provided by multiple institutions. This is a blind review process with samples being fully de-identified,

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including the removal of the original score provided by the host institution. CIM-Online relies on digital technologies and online scoring systems, to record and collate judgement decisions using an established standard.

Data Infrastructure Digital systems to enable the collection, collation and analysis of data, and to optimise the potential for reporting and data visualisation for formative (improvement) and summative (reporting) purposes. As applied to the GTPA, it refers to: the data warehouse for storing de-identified performance records against the common standard, permitting longitudinal tracking over time and analysis; an online scoring platform; and two applications (apps)—the first, designed and built for entering cohort performance data at the criterion level; the second, also purpose designed and built for entering data on mandatory summative assessments in ITE. The latter supports investigations of ITE or teacher education candidates from program entry to exit.

Data Warehouse An online storage or archiving system for housing data from a variety of sources. In the GTPA, this is a purpose-built digital data system for storing de-identified performance records. The records are collected to: (1) monitor the movement of the standard overtime; (2) enable longitudinal investigations into the quality of ITE programs and their effectiveness, and (3) study the characteristics and performance trajectories of individuals and sub-cohorts of special interest.

Fidelity The extent to which an assessment is implemented as intended. In this book, fidelity relates to the conditions under which TPAs are implemented. Fidelity is central in efforts to ensure fairness for preservice teachers; that is, all have the opportunity to learn and provide evidence of their knowledge, skills and decision-making. (See system validity and site validity as related concepts.)

Flipped Classroom A pedagogical model in which the traditional order of homework and lectures/teaching time is swapped. Typically, students read, view videos and work with the course content material prior to engaging in face-to-face teaching with the aim of allowing greater collaboration.

Graduate Teacher Performance Assessment (GTPA®) An officially endorsed Australian teaching performance assessment conceptualised and designed by the Institute for Learning Sciences and Teacher Education, Australian Catholic University. It is implemented in partnership with a national Collective of Australian universities (https://www.graduatetpa.com/).

GTPA Collective This refers to the group of teacher educators from across Australian universities that have chosen to implement and use data generated by the GTPA in programs at Bachelor and Master levels (https://www.graduatetpa.com/discover/).

Initial Teacher Education (ITE) A tertiary education course/program undertaken by teacher education candidates (preservice teachers) to develop the skills and knowledge required to qualify as a registered teacher. ITE is typically offered at universities or accredited higher education colleges as a degree program (Bachelor and Master levels).

Literacy and Numeracy Test for Initial Teacher Education (LANTITE) A mandatory assessment of personal literacy and numeracy skills to be completed

by all ITE graduates prior to graduation. The test is expected to promote public confidence in graduates of teacher education programs (https://teacheredtest.acer.edu.au/).

Moderation A practice that contributes to quality assurance systems and processes to demonstrate reliability and comparability of scoring and related judgements. There are various forms of moderation including statistical moderation and social consensus moderation. The former is more widely practised in examination systems. In social consensus moderation, typically teachers/raters work in small teams to review and discuss their judgements using an established, common standard or benchmark.

National Program Standards (AITSL) These set out the requirements set out by the Australian Institute for Teaching and School Leadership (AITSL) for the development of Australian ITE programs. These are used for national accreditation purposes with accreditation the responsibility of state regulatory authorities (https://www.aitsl.edu.au/deliver-ite-programs/standards-and-procedures).

Online Moderation This can involve synchronous and asynchronous processes for conducting moderation online. In the GTPA, teacher educators use a common rubric and an established standard to score performances and record judgement decisions online. (See Cross-institutional moderation [CIM-Online] as a related concept.)

Practicum The practical component of teacher preparation. It is undertaken in a school and is distinguished from the academic component. Practica are often completed over several weeks and scheduled throughout an ITE course.

Preservice Teacher (PST) A candidate given entry to an ITE course. Preservice teachers complete both academic and practical (field) requirements, achieving at least a passing grade on both for graduation and licensure. In Australia, preservice teachers are working towards a degree qualification (Bachelor or Master).

Profession Readiness A demonstration of competence in the authentic skills and performances of teaching, learning and assessing.

System Validity Recognition that an assessment instrument and related performance criteria (rubric) are fit-for-purpose as measured against *official/system requirements*. In terms of Australian TPAs, the APST should be clearly evident in the design of the assessment and in the evidence of professional competence that it generates.

Site Validity Recognition that the assessment instrument and related performance criteria (rubric) are fit-for-purpose as measured against *local site requirements*. These may include practices intended to be responsive to local or community contexts of a school (where preservice teachers complete a practicum) or a teacher education program. Site validity recognises that local influences can shape practices valued in particular school or community settings.

Teacher Education Ministerial Advisory Group (TEMAG) Established in 2014 to advise the Australian Federal Government on how initial teacher education courses can best ensure that graduating teachers have the appropriate combination of practical and academic skills required for the classroom (https://www.dese.gov.au/teaching-and-school-leadership/teacher-education-ministerial-advisory-group).

Teaching Performance Assessment (TPA) A summative culminating assessment used to assess the knowledge and practical skills of preservice teachers. In Australia, a TPA must be completed successfully in the final year practicum of a preservice teacher's ITE course as a requirement for graduation.

Teacher Educator A university lecturer who educates preservice teachers, usually a qualified teacher with further postgraduate qualifications.

Threshold Standard This standard specifies the minimum expectation of performance to be awarded an overall pass (meeting the standard).

Validity In this book, validity refers to "the degree to which all the accumulated evidence supports the intended interpretation of test scores for the proposed use" which is gathered from "an analysis of the relationship between the content of a test and the construct it is intended to measure" (AERA/APA/NCME, 2014, p. 14).

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