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Teaching Practicum in the 21st Century: 2045 megatrends and implications for initial teacher education

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Abstract

This paper considers how teacher education can be managed and improved to prepare the next generation of graduate teachers to meet current and future demands of schooling in Indonesia. Innovations in initial teacher education (ITE) are reviewed through the work of the author over the past 15 years. Issues that have been encountered through the design and delivery of ITE are contrasted with the new set of goals for teacher education in Indonesia. Consideration is given to the implications for equipping graduate teachers with the skills and insights they need to respond to the demands of schooling arising from the pandemic and future demands related to the emerging 2045 megatrends.

Introduction

During the past 2 years education providers have been required to make rapid adjustments to the delivery of education programs. The COVID-19 pandemic emerged quickly with little warning of the devastation to follow. Recent assessments of the impact of the pandemic highlight how inequality within and across local and global societies has influenced the outcomes of community groups. Access to vaccines, hospitals and related health and hygienic conditions have been foremost in determining how well communities have been able to resist and combat this disease. Access to digital learning has determined which students have been able to access schooling or higher education as communities have been forced into lockdown.

Ongoing access to education through digital learning is now regarded as critical for long-term economic recovery. Evidence cited in a recent OECD report (Scleicher, 2020) shows that students in covid-affected communities are falling behind in learning. A major factor concerning the impact on different communities has been the capacity of schools and universities to adapt quickly to provide effective online learning. For lower socioeconomic communities in particular, the cost of computers and access to reliable internet connections to support sustained online learning have created barriers to learning.

Students who have not been able to fully engage in learning online or have access classrooms during the pandemic have experienced an immediate loss of access to learning. OECD suggests that these students will experience further consequences for learning and employment. Supporting economic evidence predicts that this will further impact economies of countries for years to come. Estimates, based on the loss of one-third of a year of schooling for the current student cohort with subsequent full return to schooling, suggest that this loss of knowledge and skill development will result in an average 1.5% lower gross domestic product for OECD countries for the remainder of the century.

Over this time period the prolonged reduced lower growth has been calculated to amount to 69% of current GDP levels.

This experience of COVID-19 presents a micro account of the 21st Century challenges posed by the predicted megatrends of 2045 (United Nations, 2020). The pervasive digital influences on citizens across the globe, along with economic competition and changing world order, all point to the need for: countries to ensure their citizens are well-educated; future school and university graduates to have skills and knowledge to equip them for the digital world, and for graduates to be adaptive, and ready and able, to participate in the workforce of the future.

For schools, these challenges will require a teacher workforce with high levels of digital competency to ensure students develop the capabilities they need to be adaptive and innovative. Initial teacher education providers will need to be alert to the potential rapid pace of change, and consider how they can be better prepared to be active participants in this massive societal event. With some urgency, Indonesia's teacher education providers need to consider what they can do now to equip graduates with the blend of knowledge, skills, expertise and experience to enable them to succeed in their future work in schools and classrooms. While the issues related to the megatrend are emerging, we can expect them to strengthen by 2045. As a timely reminder, the next intake of teaching students coming into higher education in 2022 will graduate in 2025, which is only 20 years out from the anticipated impact of these megatrends.

A key question for this conference is how will "experience in the practicum involve student teachers in activities that are at the level of practice that will allow them to apply their knowledge and skills in real contexts to better prepare them to teach in this context of change and uncertainty?" (ICoPCoSE, 2021).

The conference leaflet (ICoPCoSE, 2021) has identified a list of 11 issues to improve student teacher experience and learning in the practicum. These are shown in Table 1:

Subtheme: Teaching Practicum.

- a) Managing practicum
- b) Promoting student teachers' competencies during practicum
- c) Preparation of student teachers for effective practicum
- d) Adapting practicum for emergency situations: identifying problems and constructing solutions
- e) Supervising student teachers' for successful practicum
- f) Bridging the gap between theory an practices to better meet classroom needs
- g) Expectations for distance learning practicum
- h) Assessing the performance of student teacher in giving a lesson
- i) Assessing student teachers' learning docs
- j) Measuring student teachers' competency development
- k) Evaluating practicum

ICoPCoSE Leaflet, 2021

Table 1: Conference subtheme for teaching practicum

This list is used throughout this paper as a guide for consideration of what teacher educators might put in place to ensure the practicum is managed effectively, and to ensure that the learning experiences provided in schools equip the next generation of teachers with the skills they need to address the changes and uncertainties outlined for the megatrend 2045.

Practicum Management for the 21st Century

Item a) in the list invites us to consider who manages practicum and what elements of practicum do they influence? This question raises a set of further questions, including: Who are the strategic partners in the practicum? What are their respective roles and responsibilities? How do these

strategic partners construct the practicum experience?, and most importantly, How do these expectations relate to expectations for-, and of-, the student teachers?

These questions suggest a strong link exists between the management of practicum with what practicum experience is expected to achieve. Management issues determine how strategic partners initiate placements, how they communicate about practicum and how stakeholders act to construct student teacher learning. In proposing areas for improving practicum it is important to consider the list as in integrated package. Management issues cannot be separated from the remainder of items on the list and will determine how these other items are put into effect.

Experiences from teacher education in Australia

Over the past 14-15 years or so, much of my work has contributed to developing and researching practicum in teacher education. As Associate Dean for Teacher Education at the University of Melbourne I led a study of practicum outcomes involving student teachers from 8 providers in the state of Victoria, Australia in 2007-2008. The study, which was published in 2009 (Ure, Newton and Gough) was titled "Practicum partnerships: Exploring Models of Practicum Organisation in Teacher E76ducation for a Standards Based Profession".

At the time most universities had established placement offices, schools had well organised practicum coordinators. Course accreditation requirements and delivery of practicum were in accordance with the professional standards set out by government through the State teacher education authority, the Victorian Institute of Teaching (VIT). These professional standards have now been incorporated into the national Stand Professional Standards for Teachers and are administered by the Australian Institute for Teaching and School Leadership (AITSL). Both sets of professional standards reflect expectation appropriate for different professional levels.

Table 2, provides an illustrative example on one standard from the current national professional standards (AITSL). The table sets out the first standard related to Standard 1: "Know students and how they learn". Graduate standards emphasise knowledge of students, while standards for proficient teachers are worded with more active use of this knowledge and highly accomplished teachers are expected to show higher levels of judgement regarding when they would use strategies. Lead teachers are expected to show professional leadership in assisting other teachers to make decisions about what strategies are appropriate for their context.

Table 2: Example of Professional Standard 1.1 from Standard 1. Know students and how they learn

Focus area 1.1	Graduate	Proficient	Highly Accomplished	Lead
Physical, social and	Demonstrate knowledge	. Use teaching	Select from a flexible	Lead colleagues to
intellectual	and understanding of	strategies based on	and effective	select and develop
development and	physical, social and	knowledge of students'	repertoire of teaching	teaching strategies to
characteristics of	intellectual	physical, social and	strategies to suit the	improve student
students	development and	intellectual	physical, social and	learning using
	characteristics of	development and	intellectual	knowledge of the
	students and how these	characteristics to	development and	physical, social and
	may affect learning	improve student	characteristics of	intellectual develop
		learning.	students	

Source: Professional Standards for Teachers (AITSL)

For the study of practicum in 2009, the learning outcomes for student teachers were based on the then current, and similar, set of professional standards administered by the VIT. Universities and schools were expected to ensure that graduate teachers' experiences would assist them develop knowledge that reflected each of standards. However, the study found that while placements were effectively organised by universities there was an underlying problem in the quality of communication between universities and schools and this impacted the experience of student

teachers. These communication issues resulted in a lack of consistency in learning expectations for student teachers. In essence, student teachers were placed with a mentor teacher who directed what and when they would teach in their classrooms. Discussions about professional standards and implications for teaching did not inform student teacher development. Student teachers were very frustrated about this and reported that they found the early stages of placement to be very overwhelming. Overall their learning experiences were not well managed throughout the placement. In particular, student teachers found that support was not modified to help them become more independent or to encourage them to take more responsibility for their teaching.

These problems are reflected in the items listed for attention for teacher education in Indonesia, shown in Table 1. For example:

With respect to *Item b)* Preparation of student teachers for effective practicum: Student teachers reported their experience was variable. In some cases there was little direct connection between what student teachers were learning at university and what they were required to do when they were on their placement.

Similarly for item *d*) *Promoting student teachers' competencies during practicum*: Student teachers reported there was a lack of clarity about what competencies were to be learned and when, or in what order they might be mastered. They found there was too great a focus on teaching performance and that they were not given opportunities to experience and learn the broader professional demands of teachers.

These issues affected other aspects of practicum. Thus, with regard to *e*) Supervising student teachers for successful practicum: Feedback to students was variable and dependent on the attention given to this task by the mentor teacher, and f) Bridging the gap between theory an practices to better meet classroom needs: Many student teachers found that cross-referencing to theory and practice was piecemeal at best. This impacted *h*) Assessing performance of student teacher giving a lesson: As there was lack of clarity about what aspects of teaching were being assessed when a student teacher was teaching.

There were inconsistencies in what was being assessed in regard to items i) and j) and while there was consensus that practicum was not as rigorous as it might be, item k) Evaluating practicum: presented a conundrum as stakeholders engaged in practicum attended to the organisational features. They failed to connect student teachers' learning issues with the gap that existed between university coursework and teaching practice in schools.

A theme raised by these student teachers was that they "were unable to be accepted as, or feel like, a real teacher in the classroom". Their comments included "It's a very artificial situation... the whole idea of placement undermines your authority in one sense because there's someone at the back of the room watching". [p54, Ure Gough and Newton, 2009] Overall they found classroom management and discipline to be the most troubling and some believed they would not feel like a real teacher or master their teaching fully, until they had their own classroom.

These points illustrate that how placements are constructed by the university and school systems determines the quality of learning in the practicum. While good management of placements is important for getting student teachers into school classrooms, we need to look more at the quality of university-school partnerships and how they can be designed to provide a coherent professional learning program for student teachers. Two conclusions from a national report on teacher education by the Australian Teacher Education Ministerial Advisory Group (TEMAG) in 2014 are pertinent here. TEMAG concluded there was:

Insufficient integration of teacher education providers with schools and systems – Providers, school systems and schools are not effectively working together in the development of new teachers. This is particularly evident in the professional experience component of initial teacher education, which is critical for the translation of theory into practice.

And there was an,

Inadequate application of standards – Initial teacher education providers are not rigorously or consistently assessing the classroom readiness of their pre-service teachers against the Professional Standards, [p.x, 2014].

Australian universities have been prompted through these reports to work toward developing placement models that enable university academics and school teachers to work more closely together to design and deliver placements. At Melbourne we developed a model that encouraged university academics and school teachers to come together to co-construct placement learning experiences for student teachers. Before we did this we examined the research literature on what critical features of ITE need to be addressed to ensure the best preparation of student teachers for employment. We were particularly impressed by the "Teachers for a New Era" approach which was supported by the Carnegie Foundation proposing that practicum should be regarded as a clinical placement (Carnegie Foundation 2001), along the lines of medical placements.

Clinical placement model in teacher education

We embarked on a program that was designed to redefine initial teacher preparation using this clinical approach for the delivery of the Master of Teaching (Ure, 2010). Our work commenced with restructuring our school partnership program. We sought out schools who wanted to work with the university to promote a clinical approach to teaching, where evidence would be used to track school student progress and determine what would be taught and learnt in school classrooms. We set about making changes to the curriculum, pedagogy and assessment procedures to be consistent with the clinical approach and we worked with schools to map where student teachers would collect and use evidence in their teaching. Thus, although initially university led, we also worked to influence the teaching and learning practices in schools. This was needed if we were to adopt the clinical model and require student teachers to use evidence to monitor their impact on student learning during placements.

Support for student teachers in the clinical school placement model also changed. Cohorts of 25 student teachers were placed in partner schools. Each was placed with a mentor teacher. A university- based instructor, or "Clinical Specialist" was appointed to each school and each school was required to appoint a specialist teacher, or "Teaching Fellow" to oversee the activities of the student teachers in the school. Each of these appointments were half time, with the other 50% being in the school or university. This model created a triad of school and university staff to work with the group of 25 student teachers within a school.

The Clinical Specialist and the Teaching Fellow worked closely with each other, the Mentor Teachers and the student teachers. There were regular seminars in the schools for the student teachers. Curriculum adjustments in the ITE – university program enabled close integration of the theoretical components of the course. For example, early in the program when the sociology of education course was examining social factors influencing school success, preservice teachers worked with their mentor teachers to map relevant factors for all the students in the classroom. All of the student teachers would report this information in an assignment for their on campus coursework. All

of the student teachers in each school would then review their learning from this data in a seminar that was held by the clinical specialist and the teaching fellow.

This pedagogical approach extends the expectation for student teacher reflection to a cycle of reasoning about learning (McLean-Davies et al, 2015). Exposure to theory, practice, and the collection and discussion of evidence was used to assist student teachers make decisions about their teaching. To facilitate links between theory and practice in this way, the placement and on campus program were fully integrated with 2 days per week in each school while university classes were held on the other 2-3 days. Block placements, wholly in school occurred at the end of each semester.

In returning to the list of changes proposed for Indonesia, we can appreciate that while this program required a placement office at the university, the management of the program and student learning was more strongly aligned with university-based academic staff and school-based teaching staff. The relationships between the university and the designated group of schools were based on a shared approach to teaching and teacher preparation. In this model, the practicum office organised the preliminary communication between schools/student teachers. Once placement arrangements were complete the Clinical Specialist and Teaching Fellow managed the day to day issues regarding student teachers and helped them to keep on track with their learning. This meant (b) was constantly being addressed, as were the supervision and assessment issues referred to under d), e) and h).

The ongoing placement meant that schools integrated the student teachers and accepted them as quasi staff members. This meant that student teachers attended staff meetings, used the tea room, received bulletins, participated in parent teacher sessions and often contributed to extracurricular activities through organising activities and clubs with the school. In relation to item c), this meant that student teachers were well aware for the day to day issues affecting the school and this put them in a good position to learn if there were any emergencies. The two way connection between university and school led to developments related to f), i) j), and share responsibility for k).

This example illustrates a shared model for teacher education with a focus on how to use theory and evidence to support a broad program of professional learning for student teachers. University lecturers who teach the course work, university placement staff, university clinical specialists and school mentors and school based teaching fellows all use a consistent approach to ensure student teachers building their teaching practice using evidence, related research and reasoning.

Teaching Alliance and Assessment Circle model for placements in Teacher education

Subsequently, I took up a position as Head of School of Education at Deakin University where I have had an opportunity support a further development in the university-school partnership model through the Deakin Teaching Academies and Alliance (DTaaa) which has incorporated Assessment Circles for student teacher assessments in placements (Deakin University 2021). This placement and assessment approach positions the student teacher at the heart of the practicum and its assessment. We have done this to increase the focus of practicum on student teacher learning outcomes.

Assessment Circles are student teacher led. This provides a forum for student teachers to discuss their experiences in the placement and to explain how these have contributed to their learning. In this way the Assessment Circle process builds student teacher learning through steps that focus on their development as a teaching professional. It also acknowledges the broader skill set they need to develop as they assume the role of an independent teacher. Student teachers' learning in coursework and placements is focused on the professional framework that is described by the

standards that make up the national standards for the teaching profession (AITSL). In an Assessment Circle, a student teacher is required to demonstrate their understanding and achievement against selected standards. Assessment circles support the view that student teachers are on a professional learning journey and this activity is specifically designed to assist them to collate and review evidence of their learning against the standards.

This example provides insight into how student teachers can be encouraged to participate as a neophyte professional when they immersed in the work and culture of a school. In Alliance placements student teachers are regarded and treated as an emerging professional. They are immersed in all of the activities of the school and are expected to contribute to the school as a teacher professional. They attend and participate in school meetings, they work with subject or grade level groups of teachers to plan lessons and learning sequences and they co-teach with teachers, gradually taking on more and more responsibility for teaching and planning long term management of learning. Student teachers analyse student data along with school-level data and engage in real discussions with teachers on how the school might improve teaching and learning at the school.

In a similar manner to the previous clinical model the Deakin model involves a team of mentor teachers in a school with each mentor supporting a student teacher. There is a specialist teacher who is employed half-time and is referred to as a Site Director and a Teacher Educator from the university. The Site Director comes from the school community and works closely with the university and a university Teacher Educator to support mentor teachers, conduct workshops with students and school staff and organise the assessment circles. Student teachers are placed as a cohort and form a supportive team, typically attending each other's assessment circles. The university program is built around the placement model with university academics working closely with schools to ensure integrated approaches to theory and practice for teaching.

An Assessment Circle, typically comprises a group of student teachers and mentor teachers and the site director, along with invited staff from the school and university. Each student teacher presents an analysis of their teaching practice and how they have progressed their own professional development using examples from recent lessons they had taught or observed. They reference their development to selected professional standards and provide professional explanations about their learning and approach to teaching.

This program depends on close relationships between the university and partner schools. The university has developed networks of school partners who work together in local areas through the Deakin Teaching Alliance (Deakin University, 2021). There are urban and rural school networks with groups of alliance schools forming a larger Teaching Academy. The program has also been adapted to work online, with student teachers undertaking the bulk of their learning through digital means while living and undertaking their teacher education program away from the university campus. The program has continued throughout the pandemic, with student teachers working online alongside teachers, to deliver digital learning to students who have been unable to attend school due to lockdown.

School and university partnerships through the teaching academies enable practising teachers and university-based teacher educators to systematically work together to prepare new teachers. This program has received government support in Victoria since 2014, and the Department of Education has a coordinator who currently supports 10 Teaching Academies that are associated with six participating universities in what has become the Teaching Academies Partnership Program (TAPPs), (Victorian Department of Education, 2020).

Collectively, all TAPPs focus on bridging theory and practice for teacher candidates while also aligning initial teacher education with teacher professional development. In this way, learning to teach is regarded as ongoing process that changes as the needs of schools change, as shown in the example of the response to the pandemic.

Conclusions

What are we able to learn from these models?

A quick review of items a-k in the list for reform of teacher education in Indonesia against the management and conduct of the practicum models supporting clinical and assessment circle practices show that these programs are well organised and provide examples of how high quality collaborative processes between universities and schools can address the professional learning and assessment of student teachers. The two examples that have been discusses provide models for strengthening initial teacher preparation that demonstrate:

- Management that is focused on agreement about the context and expectations for student teacher learning. Schools and universities share a common agreement about learning goals for practicum. Partnerships with schools have been developed to engage teachers as contributors to the placement program through appointments such as a clinical specialist or site director. These school- based leadership positions provide a conduit for connecting theoretical and practical work in teacher education in both the on campus and school placement settings.
- A focus on promoting student teacher development, within a framework that links teacher professional learning in teacher education with career oriented professional goals.
- Strong connections between theory and practice, which are aligned with the same set of professional standards for teaching used by the teaching profession.
- Authentic professional engagement of student teachers in schools to ensure their experiences of teaching replicate the demands of real classrooms and real school communities.
- Assessment processes that engage student teachers as a professional in the making.
 Student teachers are afforded the opportunity to think and act like a real teacher, and their development is constructed within a continuum of professional growth and development.

These programs demonstrate a strong and shared commitment from universities and schools that ensure students in schools benefit from an improved use of evidence to guide teaching and learning practice. Practicing teachers benefit directly through ongoing professional learning. Student teachers add to the quality of teaching in schools and do not cause a disruption to classrooms while placements are in progress. Teacher educators and schools communicate directly and are positioned to be able to adapt student teacher learning experiences to address current situations, such as those that have arisen during the pandemic. Positioning student teachers within the professional community of schools enables them to see first-hand how such adaptations to change are negotiated.

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