

Teacher education futures: Today's trends, tomorrow's expectations

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Education is facing significant political and contextual challenges that will impact its future. This study employs a Delphi methodology to investigate teacher educators' views of current trends and their consequences for teacher education futures. Interviews were conducted with a sample of expert teacher educators drawn from eight countries. This provided international perspectives on both local and global trends. The data were analysed to identify and elaborate key themes reported by the participants. The article draws on these themes to develop brief narratives around current developments that the teacher educators argue will have a major impact on the future of teacher education. These narratives are used to develop possible scenarios to inform thinking about teacher education futures.

Keywords: Teacher educators, futures, scenarios, teacher education trends

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Introduction

In many countries there is concern and dissatisfaction with teacher education programs and constant calls for these to change. This paper arose out of a project which sought the views of international expert teacher educators pertaining to the future of teacher education. The paper aims to highlight trends and expectations drawing on varied national contexts. Consideration of these allows us to construct imagined teacher education futures which act as stimuli to inform debate on policy and design.

Background

We examined the literature to see what it could tell us about the trends and expectations concerning teacher education across different continents and countries. With few exceptions, the literature highlighted the following themes: concerns about the quality of teaching and dissatisfaction with current models of teacher education; improvements led through surveillance, accountability measures and reporting; contradictory demands of preparing teachers for local settings in an era of increasing globalisation; and the need for teacher education to be proactive in 21st century schooling and new ways of teaching and learning.

The international testing regime currently in existence has had an impact on teacher education. In many countries, the constant concern that students are falling behind other nations in external measures of performance leads to a widespread belief that teachers are not adequately prepared. This adds impetus to the move to reform teacher education. As a result, there has been a trend towards accountability measures for teacher education (Bates, 2004).

Widespread dissatisfaction with the current outcomes of teacher education has been reported in the literature, leading to continuous debates about who should control accountability in teacher education (Ludlow et al., 2010). It is claimed that teacher education reform is often not well coordinated (Futrell 2010; Wang, Odell, Klecka, Spalding & Lin 2010). For example, it has been argued that the USA presents a story of years of neglected teacher education (Darling-Hammond 2005; Wiseman 2012). Over the last decade there has been a flow of policy in the area of education, which has led to demanding levels of reporting for teacher education providers and increasing demands for more rigorous accreditation of teachers (Darling-Hammond, 2012; Gatlin, 2009).

One of the issues is that there appears to be a shortage of quality teachers who are able to teach in diverse and challenging situations. However, teacher education does not seem able to address this problem with its traditional programs. A further criticism of teacher education programs is their continuation with 'pedagogical course work' (Gatlin, 2009, 471) although there is little evidence of the link to improved student outcomes. Gatlin (2009) is one of many voices that suggest that teacher education needs to be revitalised and that the protection of programs

through increasing regulation of standards need to be challenged. She suggests that “teacher educators must also be willing to recognize that the diverse needs of prospective teachers and the schools that will employ them may require a greater diversity of teacher preparation approaches than is possible under the tightly regulated system espoused by the professionalization agenda” (2009, 475). Gatlin urges us to consider a variety of different approaches that might accommodate the diverse needs of teachers and students, including multiple providers and targeted schemes. To do this, she suggests that we need to remove some of the current restrictions on accreditation and regulations governing teacher education.

A recent report on teacher education in the USA, “Our Future, Our Teachers” (US Department of Education, 2011) identifies four areas of concern: lack of data to tell teacher preparation programs how they are doing; the inability to attract the best students; inadequate preparation for the hard realities of the classroom; and a need to address critical shortages in certain subject areas such as maths or science.

The four concerns identified in this report (and their proposed solutions) are shared by many countries, (NSWDEC, 2012) and have led to an ongoing cycle of teacher education reviews and subsequent reforms (Dyson, 2005). Yet, in spite of an impressive raft of policy initiatives and programs, and numerous reviews of teacher education (Brock, 2012), there is persistent concern with teacher education in many countries (Dyson, 2005; Psifidou, 2010).

Many English-speaking countries seek to understand better and emulate the models of teacher education found in South Korea, Singapore and Finland because of their success in international tests such as PISA (Darling-Hammond 2012). These countries also enjoy reputations for a highly qualified and valued teaching profession (Sahlberg, 2010).

Another issue noted in the literature concerns the increasing competition for students in a global marketplace and the need to increase the internationalisation of teacher education programs. Bates (2008) calls for ‘a defensible theory of teacher education’ in a context of increased internationalisation of these programs. Such a theory should provide the autonomy needed to resist the pressures of market forces as well as the extremes of culture and tradition. These global and local drivers place contradictory demands on the education system which can lead to impoverished education and teacher education (Bates, 2008; Gray, 2010).

These contradictions are aptly described by Clay and George (2000, 26) as follows:

‘Education for the twenty-first century presents educators with a paradox; on the one hand the necessity to respond to a knowledge-based global economy is critical ... but, on the other hand, schools with a captive audience are exploited as sites for cultural reproduction and for the transmission of a “shared cultural heritage.”’

Gray (2010) too, argues for caution in the application of universal rules and standards in teacher education. He argues that we should weigh carefully those aspects of teacher education that apply universally against the demands and needs of particular contexts.

In 2008, the International Alliance of Leading Education Institutes (IA) produced a report on transforming teacher education based on data from Asia, Europe, Brazil, Canada and the USA. The key drivers were identified as the rapid rate of economic integration, technological

advances, global competition for talent, continued underachievement (particularly among minorities and marginalised populations), diverse classrooms, and increased expectations from stakeholders (Tan, Wong, Fang, Devi & Gopinathan 2010).

A report on the future of learning (Redecker et al., 2011) indicates that the drivers that will influence learning and education in the future will include demography, globalization, immigration, technology and the labour market. They suggest a list of ‘new skills’ and ‘new ways of learning’ (Redecker et al., 2011, 9). New skills include personal, social and learning skills and the new ways of learning include learner-centred, social learning and lifewide learning. While these may not appear to be new to many teacher educators, it appears that there is a gap between the rhetoric and reality.

Throughout the last thirty years, there have been numerous calls to reform teacher education but there appears to be little change (Schuck, Aubusson, Buchanan & Russell, 2012). For instance, Veenman’s 1984 review on beginning teaching appears to be addressing contemporary issues. Fifteen years later Wideen, Mayer-Smith and Moon (1998) analysed over 90 studies of learning to teach and concluded that pre-service teachers were inadequately prepared for the rigours of the classroom by their teacher education and professional experience. Schuck et al. note that concerns about teacher education appear to be remarkably enduring and complex.

This paper therefore looks to the experts in the field of teacher education for their views on the issues, successes and challenges of teacher education and on the directions that teacher education may take in the future.

Methodology

A qualitative interpretive paradigm (McMillan & Schumacher, 2006) was used for this study to gain an understanding of the views of a group of international teacher educators. The sample of international teacher educators was identified using criteria such as publication and grant records as well as a professional interest in and knowledge about teacher education futures. Prior to the project, the participants were not all known to the researchers apart from by reputation as indicated above. A total of twelve teacher education experts participated: eight female and four male; nine professors, one associate professor and two senior lecturers; all with leadership roles in teacher education. The sample included academics with a strong background in teacher education research as well as leadership and management roles in the sector. The group of participants came from a total of eight countries: Australia, Chile, Germany, Singapore, The Netherlands, Turkey, the UK and the USA. The participants were not acting as representatives of their country or any organisation. Each participated on the understanding that their individual professional views were sought. To reduce risk of identification, no further information about participants is provided.

The interview schedules were semi-structured and interviews were conversational in manner. Participants were advised of the interview protocol prior to the interview. Interviews were transcribed and data analysis followed general qualitative process analysis (McMillan &

Schumacher, 2006): selecting text extracts, identifying patterns, themes and key concepts, coding and categorisation, code testing against interpretation and constant comparison. Variations in interpretation were resolved by revisiting the source to establish researcher consensus. In reporting, to increase the likelihood of anonymity for participants some minor modifications to reported transcripts were made.

As the analysis indicated much agreement among the participants on many issues, the reported findings have been constructed by amalgamating several responses from a number of respondents where these indicated a shared view (Geelan, 2003, Aubusson, 2011). The findings reported in this way give voice to the expert participants. Consequently, there is minimal intrusion in the expression of findings by the authors. However, the authors acknowledge that the choice of reported data highlights the more provocative and controversial themes.

The data were then used to develop the discussion which comprised two scenarios. The use of scenarios is a helpful way of conceptualising the impact of different issues and trends on teacher education. Scenarios provide a means of reflecting on, and imagining different futures for teacher education (Snoek, 2003). A process for using scenarios to conceptualise future education involves identifying the major fields in which significant change is envisaged to impact on that future, and selecting those fields in which the change and impact of the change can be modulated or controlled to some degree.

Two major fields of change are identified here and these are used to imagine different futures through the use of a 2-dimensional model (Linde, 2003). The extremes of each field of change are described to highlight the possible characteristics of the field and the possible impacts that could occur. These fields of change arise out of the analysis of data. The two major fields identified from the discussion are a continuum on location of teacher education, from school-based to university-based, and a continuum on autonomy and regulation, ranging from high government regulation to self-regulation by the profession. These two fields are set up as a horizontal and vertical axis, thus forming four quadrants. We have chosen to look at scenarios arising from considering the extremes of the location axis, while acknowledging that for each extreme, regulation may vary from being imposed by government to self-regulation.

Insert Fig 1 here

Findings and Discussion

We report below on the data that emerged from our study. As noted, where possible we have let the participants' voices speak directly on the theme. Often several voices have been merged where they expressed similar views. Their voices are indicated in italics to clarify the source of the discussion.

Accountability and standards

A growing concern about the quality of teaching, particularly in English speaking countries, has strengthened the resolve of governments to control and monitor teacher education. This has increased accountability and promoted the introduction of standards which programs and graduates must meet. This trend is expected to continue and become more widespread thus decreasing the capacity of university teacher educators to self-determine the content and practices of their programs.

The accountability agenda has so infused everything in teacher education that there would have to be a major policy change to shift that. The current accountability emasculates the profession and denies the rights of teachers and the profession to make pedagogical decisions. It started in the 1980s and it will remain the dominant agenda in teacher education. It simplifies things for government if those who are to be the transmitters of ideas into the next generation are in institutions which are in turn controlled by government. Almost nobody will have the courage to resist the standard practice. The government standards will be used to reinforce control over what happens. Where there is creativity we may see extraordinary projects happening on a small scale but it will be rare.

There is an incredible political tension around the foundations of teacher education in order to prepare our graduates for schooling in the 21st Century, whatever that might mean. It doesn't matter what government is in power. There is constant criticism of the quality of teaching and attempts to regulate the teacher education curriculum or the intake of students. We are being politically screwed down because in the world context the transparency, the accountability and a belief in improvement through competition mean that we are becoming more highly regulated in ways that are totally unhelpful. This will have greater impact over the next ten years. The whole trend is prevalent in English speaking countries. League tables, publishing data about various institutions, making that data available with all its imperfections, naming and shaming all, enabling particular institutions to position themselves as elite, is part of a broad trend in all education. Government will rank university teacher education courses more and more. Governments have a belief that using league tables improve performance. So we will be driven more and more by measures of performance on more and more measures. It is about putting pressure on institutions. It will stop risk-taking and innovation.

I don't see the next generation of ministers of education in English speaking countries giving autonomy back to the teacher education industry and that's in stark contrast to Finland or any of the Scandinavian, Canadian and Northern European countries. Indeed, participants from Northern Europe commented that while standards are being and would continue to be developed, these were being developed collaboratively and led by teacher educators, in consultation with teachers and the education ministry.

Balancing subject content knowledge, foundation studies and pedagogy in teacher education

In teacher education courses the trends concerning the relative importance of foundation studies are moving in opposite directions in different countries. In some countries where they have not been central to teacher education it is anticipated that they will be more emphasised in future teacher education programs. *Teacher Education will draw on more cognitive psychologists to understand teaching and learning.* By contrast, where in the recent past foundation studies such as philosophy, psychology and sociology have been integral to teacher education, their role is diminishing and this seems likely to continue. *I don't think there will be any undergraduate teacher education and this is the home of the foundations in philosophy, sociology and history of education. I think they will disappear from education altogether. They will disappear and be rediscovered and be needed but where will they come from? By then, where will the expertise come from?*

There is a similar divergence in trends on the relative importance of knowledge of the subject the teacher will teach as opposed to pedagogical knowledge. In each country, wherever there has been an emphasis on one there is now a growing emphasis on the other. *The preparation of teachers will change due to structural changes in my country. Teachers will have to have better content knowledge. This goes in waves but in the future there may be a general move to have more emphasis on subject matter than pedagogy.* By contrast, elsewhere, the emphasis will change from a focus on content knowledge to a focus on pedagogy. *There will be a need for more reflection and professional learning in teacher education.* While in other places, the emphasis in primary and secondary teacher education will change. *Primary school teacher education is moving to include more subject matter and secondary teacher education is moving to more pedagogy.* Some saw the different emphases as being associated with world regions. *The challenge for some maths and science teachers is they don't know their maths. In Asian countries, there is much more emphasis on subject content. In the West the emphasis is on pedagogy and psychology, not subject matter.*

Sometimes it is not so much a shift in emphasis as an expectation that there will be greater integration of subject matter and pedagogical knowledge. *We are moving to integration of content subjects and the foundational core. This requires people to let go of own subjects and expertise. It is coming about because of concerns about people who can teach something but not someone. They can teach the subject but not the student. So there we will need to integrate pedagogy with subject knowledge in teacher education. If we only focus on pedagogy then we will be lost.*

As well as the perennial challenge of balancing pedagogical and subject matter, in many countries there is an expectation that teachers will require a wider range of knowledge and skills in the future. There will be a need for *teachers to understand students' moral development, to visit and work with families to deal with the issues of importance. As well, teachers will need to embrace multicultural differences and address issues of social justice, to teach the whole child in whatever context, not just the subject.*

One participant foresaw an extreme outcome of current trends. *The teacher as intellectual, the teacher as researcher and the possibility of reclaiming teaching as an intellectual endeavour may be gone. If you accept the version of education, which is all about vocation and skill and the economy, the notion of teacher as intellectual becomes passé. We could be left with a teaching force of compliance meters rather than movers and shakers.*

Duration and location of teacher Ed

There are competing trends in the duration and location of teacher education. In some instances, there is an expectation that student teachers will be required to complete longer teacher education programs before they can enter the profession. In other instances shorter teacher preparation times are anticipated. Even within educational jurisdictions differences are expected. For example, in subject areas of high demand such as mathematics and some sciences, short pre-service education courses are anticipated to resolve teaching shortages. In addition, select groups of high achieving students may continue to be fast-tracked into teaching.

In some countries, the trend is that initial teacher education will shorten and become more of a training course. University teacher education may become more important in running professional development courses for teachers. For some, the total time required to be a fully qualified teacher may be extended but the amount of time spent in initial teacher education at university may be quite short and followed by an extended period of learning while teaching before being deemed fully qualified. Some see practices that are currently occurring productively on a small scale, being expanded. *We will be getting the teachers out early and into a school quickly with a following scaffolded process. New teachers might work closely with experienced teachers, becoming co-teacher, rather than having a class on their own. They may have some small salary or none. Mentor teachers could be handpicked and well-trained. We could end up with the expert teacher as the unit of support, not school. It looks promising: immersion, scaffolding and reflection. What has emerged is a need for good mentors so universities might have to move to providing training for mentors to work with their protégés rather than investing as much time in the teacher trainee.*

In other countries a mix of models is seen as likely. *The politicians are saying if you are bright you can get what you need to teach in three weeks and if you're not really bright, then we need to hold you back for two years to build up that expertise. I think we will end up with both models.*

A few believe that *the balance between school and university involvement in teacher education is about right now.* This view is prevalent *where there is a close partnership between universities and schools so that the distinction is less sharp.* Others predict that *the next move will be to put teacher education entirely in schools so there will be model schools which might run teacher education. With teacher education 100% in schools the future of faculties of education would be very odd indeed. However, it may not be possible. Ideologically governments want teacher education that will serve their ideological perspective but the practicalities of asking schools to do it? It is building up a head of steam but how will the schools cope with all this?* Others

anticipate that initial teacher education will require relatively less time spent at university and more time spent in schools. *The total preparation time may remain about the same or be longer than it is now. Teacher educators will also be in schools but doing things differently. Teacher educators may be located permanently in schools, be called in as consultants from university or independent companies providing a fee for service to schools.*

Others see strong partnerships evolving. *At present there are distinct two phases of teacher education; the first at uni and the second at school. In future, the links between these two phases will have to improve. Professor and teachers may teach together. This likely to happen as the school population is decreasing. So fewer teacher educators and teachers will be needed.*

Status and emphases of teacher education

The status and nature of teacher education is closely linked to its site of delivery. In some countries a future with far greater competition in teacher education is predicted with varied providers other than universities offering or commissioning teacher education programs. Potential sites of delivery in future include universities, colleges, schools and consultancy businesses. If most or all of teacher education is located outside university then there is concern that the status of the profession will be diminished and the research capability in the field to inform policy and practice will be lost. *The problem with a second phase of teacher education in schools is that the teacher educators are school teachers and they don't have a commitment to theory building or research. On the other hand many current teacher education research projects are not useful to teachers.* If teacher education at university is to justify its privileged position then it needs to ensure that its research is useful. *The role of the university teacher education program is to generate knowledge, conduct research and to provide flexible, agile teachers who can be effective in a variety of contexts.* According to many participants, teacher education research currently lacks credibility and influence among policy-makers. It needs to be able to demonstrate that it adds value to the system. *Schools are currently disappointed in offerings of universities and colleges of teacher education. They feel they can do better teacher preparation in schools. This trend will increase if the inherent value of a university teacher education isn't clear. Small businesses will start to offer expertise in teacher training and preparation instead of colleges of education and universities. If teacher education cannot retain its status as a profession then it will disappear from the equation at university.*

In an attempt to both establish a knowledge base for teacher education and to underpin the status of teacher educators, teacher educators in some countries, particularly parts of Europe and the USA, are investigating the potential of teacher educator standards. They are asking what a teacher educator should know and be able to do. While they see these standards being developed collaboratively and led by teacher educators, they anticipate that in future they will establish minimum requirements for teacher educators and university programs. In some instances this is viewed as a way to ensure or enhance the status of university teacher education and reduce the risk of competition from low cost poor quality non-university providers. *The standards for teacher educators are informal now, but they are coming from professionals, the*

teacher educators and school teachers, not from politicians because there is a need to safeguard existing expertise in university teacher education before it disappears with school-based teacher education. These standards may also include prescribed minimum qualifications for teacher educators, such as a PhD in education, and teaching experience.

Just as there is a potential for increasing differentiation among teacher education providers ranging from highly ranked research institutions to courses 'for sale' from small businesses, so too within universities a growing differentiation between teacher educator researchers and teacher educator scholars or perhaps trainers is anticipated. *We have designed the job of the teacher education academic to be undoable. So, there will be a growing tension. In education there will be a distinction and a separation of career paths for research based scholars and a career path for the clinical practitioner, with pressure for practitioners to have recent teaching experience and researchers having more time to perform as researchers. We will have to play this game better if we are not going to be seen, according to measures, to be a low performing research field.*

Internationalisation

Internationalisation is having an impact on teacher education in a variety of ways. These include teacher education programs being benchmarked against programs in other countries and best practices being imported from programs in other parts of the world. While the global marketplace for teachers is likely to be stronger with more graduates teaching in countries beyond their training sites this is considered unlikely to fundamentally shift the local focus of most teacher education programs. Nevertheless there may be greater international competition for teacher education students. *In future we will need to have the best teacher education programs or students will go elsewhere. As well the international market for graduate teachers will become very competitive. Many of our graduates are multilingual and are attractive to our neighbours. Here they are highly paid and teachers have community respect but the competition for the best teachers is increasing and it will become harder to keep them. Particularly in high demand areas like maths.* Universities will look at foreign models and see how these fit with their context, work more cooperatively with other countries to develop alternatives and share resources. In particular, there is an expectation that the division between East and West may diminish as *they work together, East and West exchanging ideas and practices.*

21st Century learning and technological innovation

There was universal agreement that teacher education is moving towards and would have to continue to embrace 21st Century learning and at least match, if not lead, technological innovation in school settings.

The move to 21st Century learning is important. Now we are looking to make sure that our schools produce creative thinkers. They need to be technologically capable and able to work effectively in collaborative teams. These needs are having a bigger impact on teacher education.

So teacher education is changing to emphasise 21st Century skills. I think this will be the trend for the foreseeable future.

Discussion

The discussion takes the form of two scenarios for teacher education that are directly derived from the findings. These scenarios outline hypothetical futures generated from the dimensions outlined in Figure 1. The researchers aggregated features identified in the findings to provide coherent representations of two potential futures, but alternative aggregations are equally possible. The scenarios are provided here to provoke teacher educators to critique current trends and inform future directions.

In both scenarios teacher education has moved to embrace twenty-first century learning and learning technologies. Accountability is a dominant feature, with teacher education being monitored and scrutinised either by external authorities according to government imposed standards or tightly self-regulated by a professional community. In these teacher education futures politicians periodically express deep concern about international test performance and competitiveness which give rise to prolonged criticism of teacher education.

School-based Scenario

In this scenario, teacher education is located in schools and is designed to contribute to economic productivity and emphasise vocational preparation. Teacher interns are supported by well trained school based educators who are expert practitioners rather than intellectuals. Teacher education is highly focused with a practitioner-technocist emphasis informed by classroom experience. Among teacher educators, deep subject matter knowledge is replaced by extensive curriculum knowledge which is implemented without critique. Short teacher education programs are commissioned by schools to address teacher shortages. Consultants are employed to provide teacher education expertise as required. Teacher education is influenced by local school contexts enabling it to take account of the particular needs of the setting. The global marketability of teachers is reduced by the emphasis on local contexts. There are high levels of satisfaction among beginning teachers with teacher preparation leading to high retention. Student teacher intake is closely tied to workforce demand. There are few teacher educators in universities, no education faculties and little capacity for education research in universities.

University-based Scenario

In this scenario, teacher education is located mainly in universities. Programs are designed to prepare agents of change and emphasise critical thinking. Teacher interns are supported both by university staff and school-based mentor teachers. Teacher education deals with broad social and philosophical issues and their pedagogical implications. Universities offer a variety of courses of different lengths to meet varied demands and shortages. In response to competition from non-university teacher education providers, there is increasing regulation specifying minimum standards for teacher education programs and staff. Teacher education is internationally

benchmarked and influenced by global practices, and programs and graduates operate in a global marketplace. Graduates of these programs are flexible learners with diverse employment opportunities, in and outside of schools. Student intake into programs is a function of student demand for teaching courses. There is a division of responsibility between teacher educator researchers and clinical practitioners. There is extensive casualisation and outsourcing of practitioner components of the program. Teacher educators are engaged primarily in research.

Conclusion

These scenarios are not intended as predictions of the future. It is up to the reader to consider those aspects that might be relevant and useful in informing developments in their teacher education context. There is no ideal state of teacher education. Context is critical.

The many different trends are playing out in different ways in different countries. In general, the experts interviewed indicated that some trends appear more productive than others, for example, the imposition of regulations and control by the state is generally considered less productive than highly collaborative engagement among governments, teacher education providers and schools.

The findings and scenarios provided in this paper are aimed at provoking discussion about ways to enhance teacher education. We need to ensure teacher education futures are carefully designed rather than occurring merely as a consequence of uncritical continuation of current trends.

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Figure 1: Two dimensions of futures scenario

