

2020

Investigation of Saudi Teachers' Perceptions of Teaching and Learning after a 12-month Professional Development Programme in Australia

Gosia Klatt

Melbourne Graduate School of Education, The University of Melbourne, klattm@unimelb.edu.au

Amy Berry

Melbourne Graduate School of Education, The University of Melbourne, amy.berry@unimelb.edu.au

Anne Suryani

Melbourne Graduate School of Education, The University of Melbourne, anne.suryani@unimelb.edu.au

Veronica Volkoff

Melbourne Graduate School of Education, The University of Melbourne, vvolkoff@unimelb.edu.au

Hesham Khadawardi

Saudi Arabian Cultural Mission in Australia, hekhadawardi@au.moe.gov.sa

Follow this and additional works at: <https://ro.ecu.edu.au/ajte>



Part of the [Teacher Education and Professional Development Commons](#)

Recommended Citation

Klatt, G., Berry, A., Suryani, A., Volkoff, V., & Khadawardi, H. (2020). Investigation of Saudi Teachers' Perceptions of Teaching and Learning after a 12-month Professional Development Programme in Australia. *Australian Journal of Teacher Education*, 45(7). Retrieved from <https://ro.ecu.edu.au/ajte/vol45/iss7/2>

This Journal Article is posted at Research Online.
<https://ro.ecu.edu.au/ajte/vol45/iss7/2>

Investigation Of Saudi Teachers' Perceptions Of Teaching And Learning After A 12-Month Professional Development Programme In Australia

Gosia Klatt
Amy Berry
Anne Suryani
Veronica Volkoff
The University of Melbourne
Hesham Khadawardi
Saudi Arabian Cultural Mission in Australia

Abstract: This study investigates the perceptions of teaching and learning of teachers from Saudi Arabia who participated in a 12-month professional development programme based in Australia. Considering the design of the programme and the vast differences between the education systems and cultures of the two countries, this study examines Saudi teachers' classroom practices and challenges while teaching at schools in their home country, and whether their perceptions of teaching practice changed during and after participating in the professional development programme in Australia. Factors that might have influenced the changes to and nature of their teaching aspirations and plans for their students and schools in Saudi Arabia are also discussed.

Keywords: Saudi Arabian education, teacher professional development, school immersion, cross-cultural immersion, beliefs about teaching and learning

Introduction

Teacher professional development through cross-cultural immersion experiences has been considered an effective way to prepare teachers for culturally responsive pedagogical practice (Zhao, Meyers, & Meyers, 2009). International field experience in particular may lead to professional and personal changes, such as increased confidence, a better appreciation of and respect for differences in other people and other cultures, and an awareness of the importance of feedback and reflection in professional and personal growth (Pence & Macgillivray, 2008). Wilson (1982) suggests that cross-cultural experiential learning requires that teachers not only immerse themselves in unfamiliar cultures, but also reflect on their experiences in such cultures to enhance their pedagogical approaches and beliefs to ensure they become more successful culturally responsive change agents in their future teaching.

In 2017, the Ministry of Education in the Kingdom of Saudi Arabia (KSA) commenced the implementation of programmes for the professional development of Saudi teachers through university-guided immersion into Australian schools, with the aim of transforming the knowledge, skills and attitudes of Saudi education professionals. This KSA's professional development plan includes the upskilling of more than 400,000 teachers, principals, supervisors, counsellors and other education professionals.

The case study presented in this research investigates the perceptions of teaching and learning of 25 in-service teachers from Saudi Arabia before and after participating in the Building Leadership for Change through School Immersion programme at the Melbourne Graduate School of Education in 2018. The unique context of Saudi Arabia, and specifically its education system, and the social and cultural differences between Australia and Saudi Arabia motivated the researchers to investigate the possible transformation that may be occurring in the teachers in relation to their perceptions of teaching and learning as a result of participating in an immersive experience in an Australian university and in Australian schools.

More specifically, this research project examines the following:

- the teachers' perceptions of teaching and learning, and their classroom practices and challenges while teaching at school in the KSA
- whether the teachers' perceptions of teaching and learning changed during and after participating in the professional development programme in Australia, and what factors might have influenced any changes
- the nature of their teaching aspirations and plans for their students/schools in Saudi Arabia.

This study is significant for several important reasons. First, it contributes to the growing literature on the impact of international immersion experiences of teachers. Second, it adds to research on Saudi Arabian teaching practices. Third, it informs avenues for the development and improvement of international professional development programmes for teachers. Overall, this study provides valuable information on the influence of international immersion programmes on teachers who are aiming to improve their knowledge and skills.

National Context of Saudi Arabia

The reform of the education system in Saudi Arabia features highly on the list of priorities of Saudi Arabia's Vision 2030 positioning Saudi Arabia as 'a pioneering and successful model of excellence, on all fronts' (KSA, 2017, p. 4). One of the goals of the Saudi reform is to provide opportunities for all citizens through education and training (KSA, 2017) through a 'reshaped' education system that focuses on 'initiative, persistence and leadership, as well as social skills, cultural knowledge and self-awareness' (KSA, 2017, p. 28). The KSA Government proposed several strategies to achieve these goals, including collaborating with the private and non-profit sectors, reforming school curricula and assessment practices, and investing in the professional development of teachers in primary and secondary schools by immersing them in Western education systems (e.g. in the United States [US], United Kingdom [UK], Canada and Australia). In 2017, the KSA Government invested more than US\$53 billion towards improving education (Pennington, 2017).

These system transformations have been necessary because the Saudi education system has been facing many challenges. The statistical data relating to participation in education reveal that in Saudi Arabia, only 25% of children participate in pre-primary education (United Nations Educational, Scientific and Cultural Organization, 2016); only 1% of grade-four (10 year old) students reach an 'advanced' benchmark in reading (National Center for Education Statistics, 2018); more than 1.3 million students dropped out of school or university in 2017 (Saudi Gazette, 2018), thus continuing the trend of low educational attainment of upper secondary education with more than 30% of students not completing school - this percentage is double the average rate of drop-outs of the countries in the Organisation for Economic Co-operation and Development (OECD, 2018). In addition, more than 50% of the workforce in Saudi Arabia is sourced from outside Saudi Arabia. These

education and employment outcomes have been shaped by a rigid education governance and resource allocation system, as well as by a traditional and inflexible teaching instruction and curricula, and other systemic and societal factors. The Boston Consulting Group (2019), contracted by the Saudi Government to assist in designing a more effective education system, identified the following six key issues undermining Saudi education system: 1) lack of consistent planning and independent strategy implementation monitoring; 2) unmet need for involvement of stakeholders in education planning; 3) lack of consistent learning standards and educational pathways; 4) weak career planning; 5) inadequate teacher education and development; 6) lack of independence in quality assurance and accountability.

The principal problem concerning teaching and learning in Saudi Arabia has resulted from the continued implementation of the traditional approach to schooling, which uses only teacher-based instruction (Alghamdi, 2015). The Saudi school curriculum is centrally planned, focusing on academic subjects, with no electives or flexibility in textbook selection or provision. This curriculum is 'transmitted' by teachers in the classroom through prescribed textbooks that are printed by the Ministry of Education and distributed nationally to all students. The role of the teacher in Saudi Arabia has been limited to the transfer of academic knowledge and the disciplining of students. The requirement to qualify as a teacher in Saudi Arabia was simply to hold a bachelor's degree in a specific academic field; however, more recently, an additional one-year teaching diploma has been required. Despite this changes, there are still many active teachers without teaching qualifications (Alghamdi, 2015). This is concerning because highly qualified teachers who have good content knowledge and understand how to teach and provide valuable feedback are one of the greatest sources of making difference in the classroom (Hattie, 2003).

The challenges of improving the Saudi education system are not only relate to functional and structural issues but also include the cultural and contextual issues related to social expectations, traditions and norms (Wiseman, Alromi, & Alshumrani, 2014). Thus, when discussing the current state of education in Saudi Arabia, it is important to discuss the prevalent cultural issues that influence teaching and learning, including an extremely hierarchical societal structure, limitations on communication between genders, and the fear of losing face. In hierarchical societies, an individual's ranking is prioritised over individual initiative, effort and talent. In the education system, this manifests as a highly centralised Ministry of Education controlling every aspect of education from funding allocation to curriculum content. At the school level, external supervisors oversee school functioning, while at the classroom level, teachers are perceived to be the 'owners' of knowledge and power. Parents and community members have little involvement in schools. Such cultural structures undermine the value of collaboration and partnerships that yield many benefits for the creative and targeted delivery of school curricula and for understanding the needs of each student in relation to context-responsive teaching. Gender segregation means that girls and boys have separate schools and teaching staff must also be of the same gender as the students. The fear of losing face affects behaviour and decision making because it is linked to societies understanding of dignity and respect (Alkahtani, Dawson, & Lock, 2013). In Saudi Arabia, saving face may be more important than keeping deadlines or imposing pressure on others.

Effective Professional Development for Teachers

Teacher professional development is essential to the continuous improvement of education systems. Teacher quality is a critical component of improving students' learning through school reform and in-school mentoring. The Australian Institute for Teaching and School Leadership (AITSL, 2014), which is an Australian national body established to

promote excellence in teaching and school leadership, defines teacher professional learning as ‘formal or informal learning experiences undertaken by teachers and school leaders that improve their individual professional practice, and a school’s collective effectiveness, as measured by improved student learning, engagement with learning and wellbeing’ (p. 5). In addition, the overall findings of education research suggest that continuous learning on the job while immersed in the classroom is increasingly considered the most effective way of improving teachers’ skills (AITSL, 2014; Schleicher, 2016).

There is a large body of research related to teacher professional learning, including studies and theories on how adults learn (e.g. Creemers et al., 2013; Darling-Hammond & Bransford, 2007; Stewart, 2014); design frameworks for effective professional learning programmes (e.g. AITSL, 2014; Jensen et al., 2016); and examination of the effects of professional learning on school reform and student outcomes (e.g. Antoniou & Kyriakides, 2013; Meiers & Ingvarson, 2005; Vermunt, 2014). However, the traditional and still the most common approach to teacher professional development is prescriptive, providing teachers with procedures and processes to follow (Kennedy, 2016). Despite the widespread use of this prescriptive approach, research suggests it is not the most effective method for facilitating the enactment of new ideas (Kennedy, 2016). An identified failure of prescriptive professional development programmes is their lack of consideration of the existing knowledge and beliefs of the teacher and of the complexities of the real-world classrooms in which they practice.

Guskey (2002) identified the following three goals of teacher professional development: 1) to effect change in teacher practice; 2) to effect change in teacher beliefs and attitudes; 3) to effect change in student outcomes. The relationship between these three elements is complex and there is no universal agreement on the most effective path to such changes. However, a clearly identified obstacle to change is the continued failure to apply evidence-based approaches to learning within teacher professional development programmes. As Kennedy (2016) observed, ‘we have strong theories of student learning, but we do not have well-developed ideas about teacher learning, nor about how to help teachers incorporate new ideas into their ongoing systems of practice’ (p. 973).

A synthesis of the research on teacher professional learning and development undertaken by Timperley, Wilson, Barrar and Fung (2007) identified a number of essential principles for effective development programmes. These authors identified that the key to successfully facilitating the enactment of new ideas and skills is acknowledging the existing beliefs, knowledge and skills of participating teachers, as well as the real-world context of their classrooms. When new ideas are in conflict with the teacher's existing beliefs, there is a risk that they may be rejected outright as unrealistic, irrelevant or of little value. Effective teacher learning and sustained professional growth require more than merely presenting teachers with new ideas, but must also provide both a challenge to and support for teachers to enable them to recognise the value in the proposed change to their practice. In addition, the most effective professional development programmes encourage teachers to become active participants in their own learning, and support them to develop the skills necessary to continue to learn and develop beyond the scope of the programme.

Research into teacher beliefs has a long history and continues to attract attention because of the demonstrated connection between teacher beliefs and teacher practice. According to Richardson (1996), beliefs are ‘psychologically held understandings, premises, and propositions about the world that are felt to be true’ (p. 103). The personal theories, beliefs and practical knowledge that teachers hold about teaching and learning provide a lens through which the teacher perceives, interprets and decides how to act (Fives & Buehl, 2011; Timperley et al., 2007). Teacher beliefs and knowledge are closely connected and are influenced by exposure to external bodies of knowledge such as those originating from formal education settings, individual experiences in and out of the classroom, and self-

reflection (Buehl & Fives, 2009). The OECD’s Teaching and Learning International Survey (TALIS), which examined a variety of teacher beliefs, practices and attitudes in 23 countries highlighted some commonalities existing between the countries as well as some cross-cultural differences (OECD, 2009). National culture has been found to influence teachers’ attitudes towards instruction (e.g. direct transmission or constructivist approaches), as well as their teaching practices and engagement in teacher collaboration (Teng, 2016). Teng (2016) noted a strong change in teachers’ beliefs following professional development training in teaching writing to students. In the qualitative case studies, Teng found that after professional development training teachers changed their understanding of the theories and instructional approaches to teaching writing. Further, the author reported a measurable change in teaching preference from direct transmission to a more constructivist approach.

Although there is evidence that teacher beliefs are malleable and change over time (e.g. Alger, 2009; Levin, He, & Allen, 2013), those who work in the area of teacher professional development continue to develop their understanding of how best to facilitate changes to the way teachers think about teaching and learning.

Interconnected Model of Professional Growth

Teacher change has been described as an ongoing and iterative process involving enacting new ideas and reflecting on experiences (Clarke & Hollingsworth, 2002). The Interconnected Model of Teacher Professional Growth (see Figure 1) offered by Clarke and Hollingsworth (2002) provides a theoretical framework for examining the complex intersection of existing beliefs and knowledge, new incoming information, professional practice and outcomes through the process of enactment and reflection. This model extends the work of Guskey (2002) to describe the multiple ways in which change can happen.

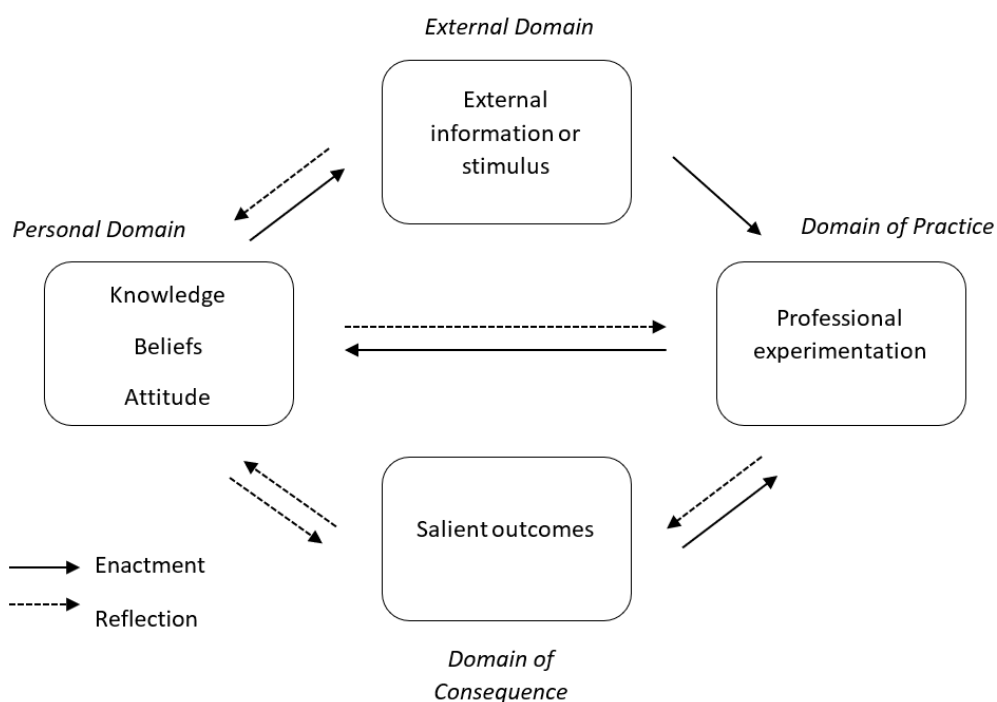


Figure 1: Interconnected Model of Teacher Professional Growth (Clarke & Hollingsworth, 2002, p. 951)

Importantly, the Interconnected Model of Teacher Professional Growth situates change as something that occurs in each of the four identified domains (personal; external; domain of practice; and domain of consequence), with the type of change dependent on the associated domain. For example, changes to a teacher's beliefs or knowledge would be situated in the personal domain. Change in one domain is then translated into change in another domain through the processes of reflection and enaction. Clarke and Hollingsworth (2002) argued that 'enaction' does not equate to simply 'acting', and emphasise the process of purposefully putting into action new ideas, beliefs or practices.

Equally important for change is the process of reflection, which involves interpretation and evaluation. Unfortunately, commonly employed approaches to teacher professional learning that focus solely on the communication of principles of practice are not effective in supporting teachers to reflect on their own experiences, practices or assumptions because such approaches provide limited opportunities for teachers to connect the content of the programme with their existing teaching context (Clarke, Hollingsworth & Gorur, 2013). Clarke et al. (2013) argued that a case-based approach, with a case referring to 'specific instances of professional practice, captured anecdotally in text form or visually through the use of videos' (p. 107), is far more effective in supporting teachers to reflect and connect with their professional practice. The key in this case-based approach is in the use of a case as a reference point for reflection. The use of case-based discussions has been reported to support a shift in teacher practice towards a more student-centred approach with a focus on uncovering student thinking. Interestingly, it has been reported that the use of cross-cultural cases can provide a much stronger catalyst for reflection by challenging teachers' existing beliefs, assumptions and practices (Clarke et al., 2013).

Considering the research discussed here, this study now examines changes to teachers undergoing an immersion experience in an international professional environment that employs starkly different approaches to teaching and learning from those in their native country. We employ a case study mixed-methods approach to investigate the perceptions of 25 in-service teachers from Saudi Arabia who participated in the 12-month Building Leadership for Change through School Immersion professional development programme at the Melbourne Graduate School of Education in 2018.

Methodology

This study employed a qualitative case study design with a mixed-methods approach (Creswell, 2003) in which quantitative surveys, classroom observations and individual interviews with participants were designed to enable participants to discuss their experiences, stories and views. The main objective of case study research is to provide a detailed description of a phenomenon. Woodside (2010) defined case study research as 'an inquiry that focuses on describing, understanding, predicting, and/or controlling the individual process, animal, person, household, organization, group industry, culture or nationality' (p. 2). Kervin et al. (2016) noted that the case study approach is best suited to 'how' and 'why' questions because it provides more of a descriptive (and detailed) approach to a problem, situation or organisation.

The 12-month teacher professional development programme delivered at the University of Melbourne provided an opportunity for the researchers to implement two questionnaires (one at the beginning and one at the end of the programme) and to record classroom observations throughout the year. At the end of the programme, interviews with individual participants and their final Action Research Plans were also used to deepen our

understanding of the participating teachers' changing perceptions and attitudes to teaching and learning.

Case Study Context

The programme delivered at the Melbourne Graduate School of Education links its professional development component (based on the clinical teaching approach that connects theory, professional knowledge and classroom experience) to a professional practice component (which involves immersion of international teachers in Australian schools for ten weeks). The academic component includes the orientation programme, a fully customised English language programme that runs for 16 weeks, as well as lectures and workshops delivered by Melbourne Graduate School of Education academics who specialise in important issues of educational inquiry, such as improving classroom learning, competency-based assessment, and school leadership. Each participant in the programme is required to develop an Action Research Plan to be implemented in their own schools when they return to Saudi Arabia. At the conclusion of the programme, each participant presents their Action Research Plan to their peers, outlining the steps of their action research and its proposed implementation. The participants share their ideas about what they have learned, and their developed strategies for leading change in their schools, districts or systems when they return to Saudi Arabia. The topics the participants in our research presented included the use of competency-based assessment, strategies to improve student engagement and using technology in teaching and learning.

The professional practice component of school immersion provided a rich, hands-on experience for each of the Saudi teachers in which they observed and assisted in teaching at two different local schools. The first five-week school immersion aims to provide a general understanding of how Australian schools work, including the structure and culture of teaching and learning. During the second school immersion (which also lasts for five weeks), each participant focuses on a specific topic they want to explore that will form part of their Action Research Plan. Throughout the ten weeks of school immersion, the teachers are supported and guided by a school-based host leader and a university-based mentor.

It must be emphasised that the academic and practical components of the Melbourne Graduate School of Education programme are grounded in the currently accepted philosophy of teaching and learning in Australia based on a student-centred approach, collaborative teaching and lifelong learning of teachers. These elements may be at odds with the more traditional Saudi system, thus providing a potentially new paradigm for Saudi teachers when thinking about teaching and learning.

Participants

The participants were 25 teachers in the Building Leadership for Change through School Immersion professional development programme at the Melbourne Graduate School of Education. The programme was delivered over 12 months, from January to December 2018. All participants are employed in Saudi Arabia full-time with teaching experience ranging from two to fourteen years. More than two-thirds ($n = 17$; 68%) were teaching/supervising in Science, Technology, Engineering and Mathematics (STEM) fields of study (including ten male and eight female teachers) (see Table 1).

Variables	Values	<i>n</i>	%
Gender	Female	10	40
	Male	15	60
Teaching role/s	Teaching only	17	68
	Teaching and administration	5	20
	Teaching and leadership	2	8
	Teaching, administration and leadership	1	4
Teaching experience	<5 years	7	28
	5–9 years	8	32
	10+ years	9	36
	Missing responses	1	4
Teaching level	Kindergarten	2	8
	Primary	2	8
	Primary and Secondary	1	4
	Intermediate	7	28
Teaching subject	Kindergarten	2	8
	Arabic	2	8
	Islamic studies	1	4
	Educational supervisor/mathematics	1	4
	Educational supervisor/computer science	1	4
	Physical education	1	4
	Mathematics	3	12
	Computer science	7	28
	Science (e.g. physics, chemistry)	5	20
	Special and gifted education	2	8

Table 1: Demographic details of participants (*N* = 25)

Procedure

Two surveys were administered at the Melbourne Graduate School of Education. All participants were provided with written information about the nature and the purpose of the study, and were advised that they could withdraw from the project at any time. Participation was neither mandatory nor remunerated. The participants were informed that their responses and/or participation in the surveys would have no effect on their involvement in the professional development programme and/or their learning outcomes. The participants voluntarily participated in surveys (first survey $n = 23$; second survey $n = 22$), group discussion observations ($n = 23$) and interviews ($n = 12$). Any information provided by participants was strictly confidential and anonymous. In addition, the observation notes taken during the programme's group discussions were not referenced to specific individuals but focused on general themes of the conversations and the issues raised.

Measures

Data were collected using questionnaires, group discussion observations and interviews. Paper-based surveys were administered at the beginning and at the end of the professional development programme with the same group of 25 teachers. The first and second surveys consisted of the same questions (i.e. they sought information on personal beliefs about teaching and learning, the level of confidence in facing challenges as a teacher, student assessment approaches and the education system) and the first survey included demographic questions (i.e. on gender, teaching role/s, length of teaching experience and teaching level) (Table 1). Drawing from the TALIS (2013) teacher questionnaire (to examine

views on teaching in general) and the Teacher Conceptions of Assessment instrument (Brown, 2011), the surveys were designed to be a self-report of participants' perceptions of teaching and learning and their teaching and learning experiences while in Australia. Each survey took approximately 30 minutes to complete. The first survey was translated from English into Arabic and the second survey was administered in English.

Data gathered through the surveys were supplemented by group discussion observations that occurred during the programme. Three group discussions were observed, and the researchers took notes about the content and nature of the discussions. The discussions were part of the professional development programme and were led by mentors to reflect on the participants' experiences during school immersion. For example: What did you like the most about your school immersion? What were the most surprising aspects you observed? What was the most challenging issue you faced? What would you like to implement at your school? During the group discussion observations, the researchers acted as passive observers and did not ask specific questions related to the study. Each group discussion observation lasted approximately 50 minutes.

At the conclusion of the programme, 12 participants were interviewed for up to ten minutes to identify the strongest benefit of the programme for each individual and which programme component was perceived to be the most influential. All short interviews were recorded and transcribed for analysis.

Data Analyses

Content analysis (Krippendorff & Bock, 2008) was employed for the first round of emergent coding. This consisted of reading survey responses, coding and analysing group discussion observation notes to identify significant patterns among answers and to adjust categories. Quantitative data were analysed to identify trends in whether teachers' perceptions of teaching and learning and their perceptions of their classroom practices had changed in any of the domains identified in the Interconnected Model of Teacher Professional Growth (Clarke et al., 2013). The qualitative data were analysed to verify whether participants' perceptions had changed or persisted, the extent to which their perceptions had changed after participating in the professional development programme, and what factors might have influenced the changes.

Survey data were analysed using the Statistical Package for the Social Sciences (SPSS) to compare participants' responses as a group at the beginning and at the end of the programme. The data were thematically analysed to explore possible changes in the following four aspects: 1) personal beliefs about teaching and learning (e.g. role of the teacher, skills development, student behaviour); 2) personal beliefs about the importance of activities at the school level (e.g. joint teaching, peer review); 3) confidence level when facing challenges as a teacher; 4) student assessment approaches. The observation notes and interviews were used as supplementary data to support and elaborate on specific themes emerging from the surveys.

Limitations

This is a small case study that enabled the researchers to shed light on the aspects of transformations in beliefs and attitudes that possibly occurred during a 12-month professional development programme for teachers immersed in a foreign country. It has helped to illustrate the differences in education traditions between Saudi Arabia and Australia, and the

factors that may influence changes in professional beliefs and practice. These findings cannot be generalised to the wider population, and it is possible that the results would not be replicated with a different group of teachers in another country. It must also be noted that the participants' level of English language could have been a barrier in explaining the depth of their experiences, with the majority of participants having an intermediate level of English. This may have prevented some of the participants from being able to explain their views and beliefs in a more sophisticated manner, despite the fact that the survey administered at the beginning of the programme was translated into Arabic.

Findings: Surveys

At the commencement of the programme (through Survey 1) and again at the conclusion of the programme (through Survey 2), participants were asked to respond to 12 statements about teaching and learning, noting their agreement or disagreement with each statement to reflect their personal beliefs (there were four categories: strongly disagree, disagree, agree, strongly agree, which were expressed as an average mean from 1 to 4). The data were analysed for the entire cohort. They were then analysed by gender to identify any potential gender differences, in acknowledgement that the participants come from a context of gender segregated teaching and learning environments, as well as cultural and social expectations and experiences based on gender.

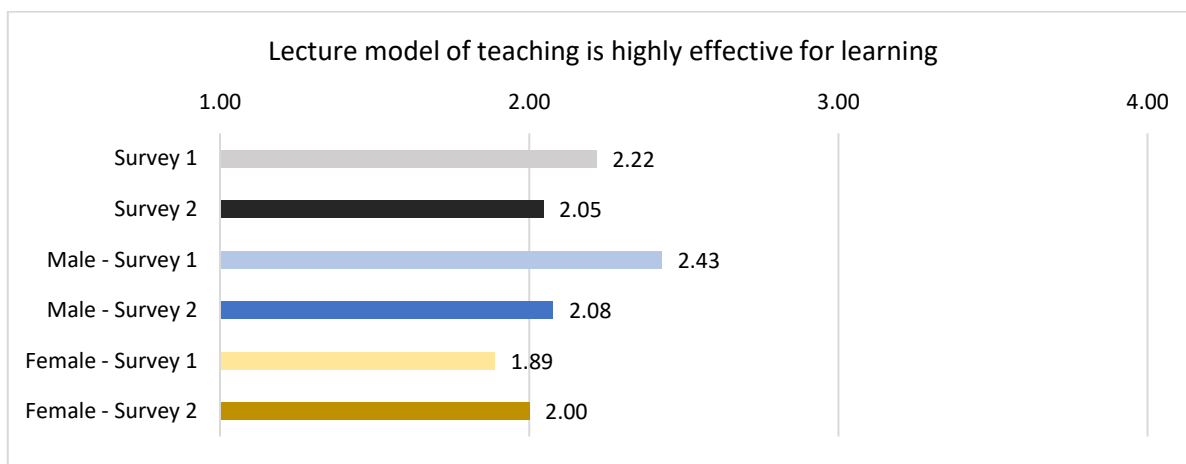
We assumed that some responses in Survey 1 would reflect the overwhelmingly traditional values underpinning the Saudi education system, and may remain unchanged. However, some responses indeed recorded shifts. In some instances, these shifts differed between male and female participants. To illustrate the themes where most shifts occurred, we divided the findings into the following three main themes: 1) perception of teacher's role; 2) teacher collaboration; 3) assessment regimes.

Perceptions of Teacher and Student Roles

It was clear from the data coming from the two surveys that some long-held beliefs about the role of the teacher and teaching and learning did not change over the course of the professional development programme. Most of the statements related to the teacher's role remained unchanged from the beginning of the programme (in January 2018) to the end of the programme (in December 2018), as follows:

- There was no shift in belief in relation to the statement: '**My role as a teacher is to facilitate student's own inquiry**' with a similar level of 'agreement' evident for both surveys.
- The entire cohort (as a group) did not have strong opinion about the following statement across both surveys: '**Teachers must deliver content knowledge first before students can start thinking for themselves**'.
- There were mixed views across both surveys evident for the statement: '**Students need to learn basic skills through repetition**'.
- There also was notable agreement from the entire cohort across both surveys for the statement: '**My role as a teacher is to demonstrate to students the right way to think and do things, for them to follow**'.
- Responses to the statement '**My teaching methods and pedagogy are based on individual needs of each student**' indicated a similar level of agreement across both surveys, with no evident differences by gender.

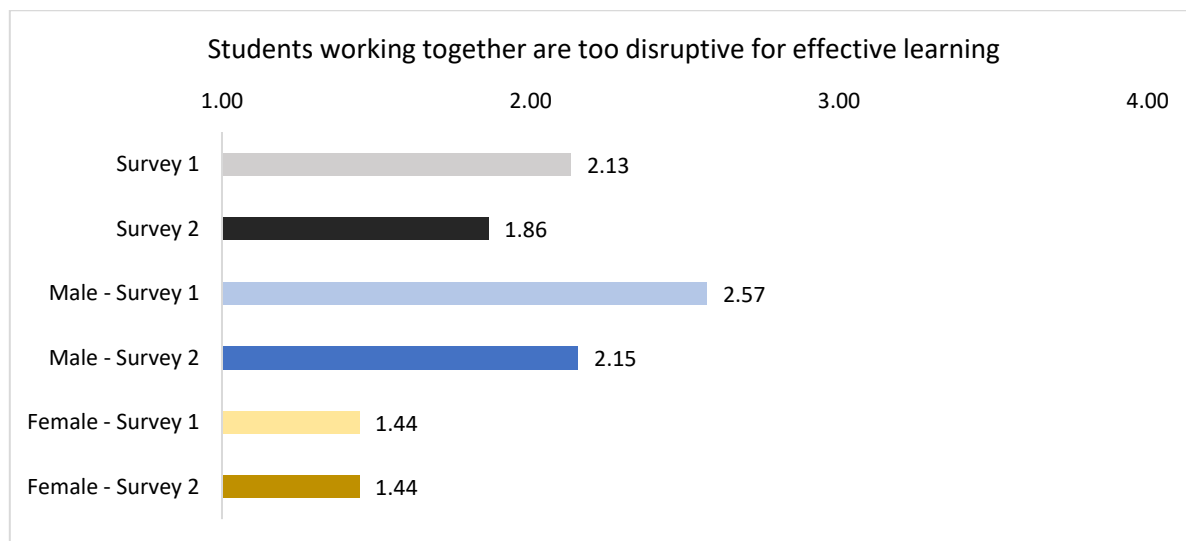
It is clear from the responses noted above that most of the unchanged beliefs related to the teacher’s role in the classroom. It is interesting to note that most of these unchanged responses represent the traditional teacher-centred beliefs according to which the teacher ‘demonstrates the right way to think and do things’. It is also seen in their mixed responses to ‘learning through repetition’ and perceptions of ‘content knowledge delivery’. However, there were some changes identified in relation to some statements that differed between genders. For example, there were clear gender differences in the responses to the statement ‘**Lecture model of teaching is highly effective for learning**’ (Figure 2). The female participants’ responses were almost the same across the two surveys. As a group, the female participants disagreed with this statement. However, the male participants as a group did not have strong opinion about this statement in Survey 1, but there was evidence of growing disagreement in Survey 2.



1 = strongly disagree, 4 = strongly agree

Figure 2: Lecture model of teaching is highly effective for learning

The responses to the statement ‘**Students working together are too disruptive for effective learning**’ also showed differences by gender (Figure 3).

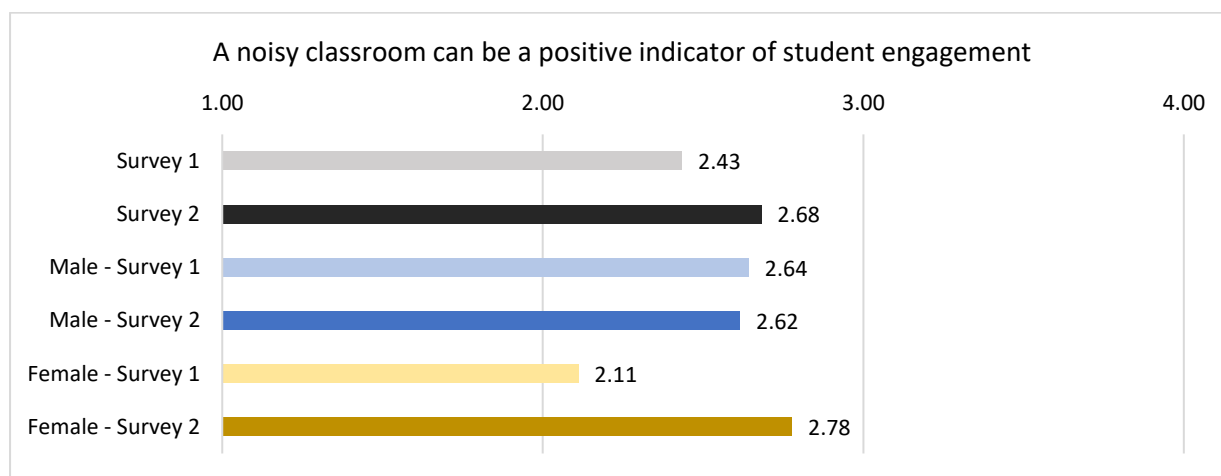


1 = strongly disagree, 4 = strongly agree

Figure 3: Students working together are too disruptive for effective learning

The figure demonstrates an evident shift in the entire cohort’s personal beliefs about students working together, with stronger disagreement with this statement reported over the course of the programme. However, closer and separate examination of female and male responses revealed that responses by female participants to this question, taken together, did not change between the two surveys, suggesting there was no enduring change in the level of female participants’ initial strong disagreement with this statement. In contrast, taken overall, male participants’ responses to this statement in Survey 1 did not indicate a strong opinion in relation to the statement, but by the conclusion of the programme in Survey 2, their responses indicated some disagreement. Given that in Saudi Arabia, male teachers work exclusively with male students and female teachers with female students, their experience of student culture and behaviour in the classroom can reasonably be expected to differ by gender, and this may influence their expectations and initial and ongoing beliefs.

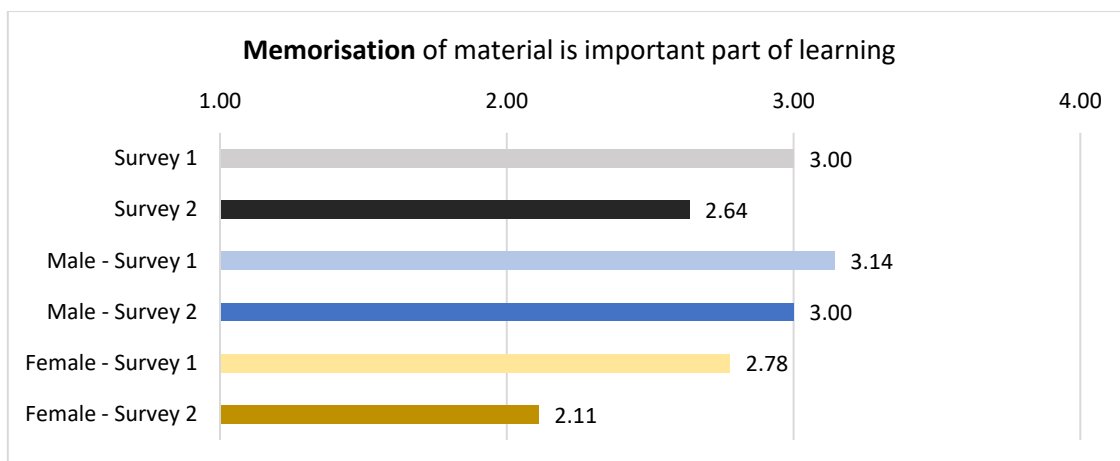
Interestingly, when asked about agreement with the statement ‘**A noisy classroom can be a positive indicator of student engagement**’ (Figure 4), the female participants initially (in Survey 1) disagreed with this statement. While at the conclusion of the programme, male participant responses, as a group, showed similar mixed views to those reported initially (i.e. there was no evidence of their personal beliefs shifting across the duration of the programme in relation to this statement), the female participants, as a group, shifted from disagreement with the statement to a low level of agreement with the statement. This raises the question of what effect gender segregated culture and gender segregated schooling may have on teachers’ expectations of their students and their beliefs about how student engagement is manifested.



1 = strongly disagree, 4 = strongly agree

Figure 4: A noisy classroom can be a positive indicator of student engagement

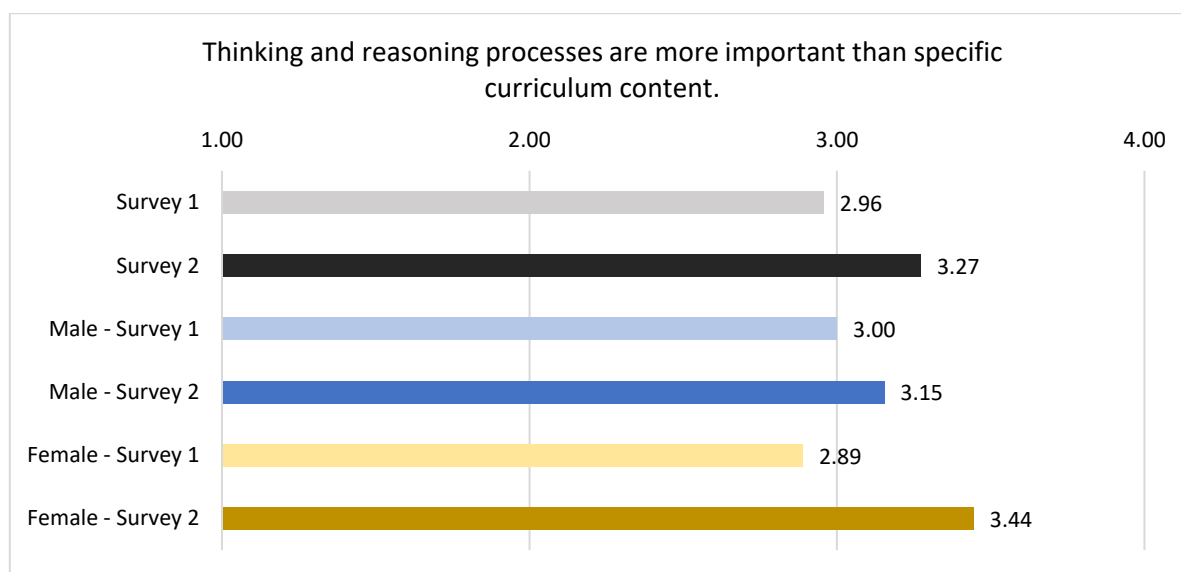
A similar pattern in the female responses can be seen in relation to the statement ‘**Memorisation of material is an important part of learning**’ (Figure 5). While the responses of the male participants indicated agreement with the statement, and did not shift from Survey 1 to Survey 2, the responses of female participants shifted from some agreement in Survey 1 to distinct disagreement in Survey 2.



1 = strongly disagree, 4 = strongly agree

Figure 5: Memorisation of material is an important part of learning

There was stronger growth in agreement in relation to the statement ‘**Thinking and reasoning processes are more important than specific curriculum content**’ (Figure 6) among female participants than among male participants; however, by the end of the programme, both groups agreed more strongly that thinking and reasoning processes were more important than specific curriculum content.



1 = strongly disagree, 4 = strongly agree

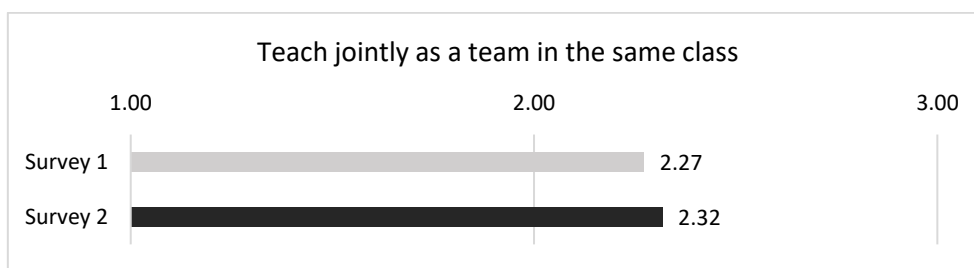
Figure 6: Thinking and reasoning processes are more important than specific curriculum content

While the discussed graphs (Figures 2–6) show only a slight change in the participants’ beliefs and attitudes towards general teaching and learning, the specific issue of teacher collaboration provided stronger evidence of shifts among both male and female participants.

Teacher Collaboration

We asked five questions related to conducting activities in school in collaboration with other teachers. Programme participants were also asked to rate the importance of five different collegial activities, ranging from 1 (not important) to 3 (very important).

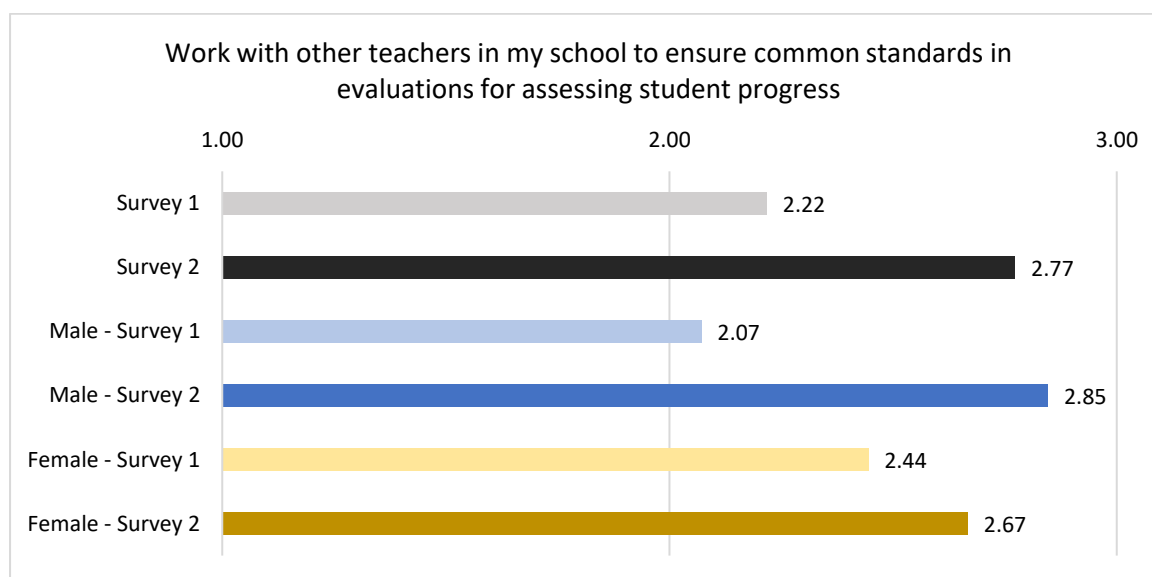
Significant shifts can be observed in several aspects of the teachers’ beliefs in relation to collaboration with other teachers. In Survey 1, the activity indicated as most important was ‘**Teach jointly in the same class**’ (Figure 7), and the participants responses remained similar in Survey 2. In contrast, reporting of the importance of the activity ‘**Work with other teachers in my school to ensure common standards in evaluations for assessing student progress**’ (Figure 8) shifted to being reported as the most important activity at the end of the programme.



1 = not important, 3 = very important

Figure 7: Teach jointly as a team in the same class

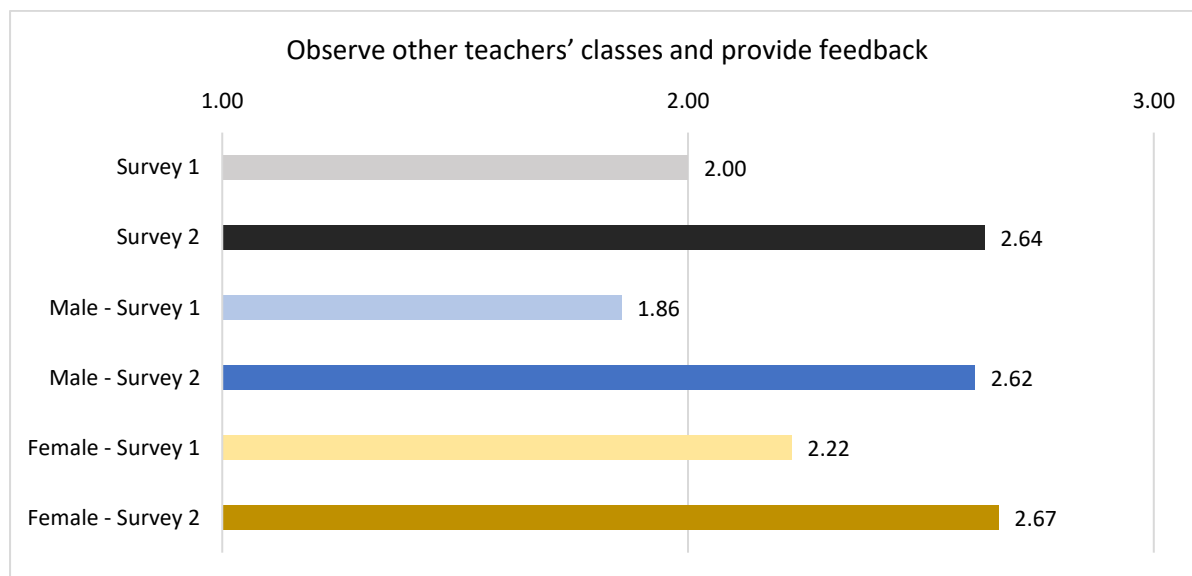
Interestingly it was the male teachers’ responses that shifted significantly in relation to this activity. Generally, the female participants placed greater importance on the activity ‘**Work with other teachers in my school to ensure common standards in evaluations for assessing student progress**’ (Figure 8) than male participants at the beginning of the programme. However, by the end of the programme, the male participants and the female participants reported this collaborative activity as very important.



1 = not important, 3 = very important

Figure 8: Work with other teachers in my school to ensure common standards in evaluations for assessing student progress

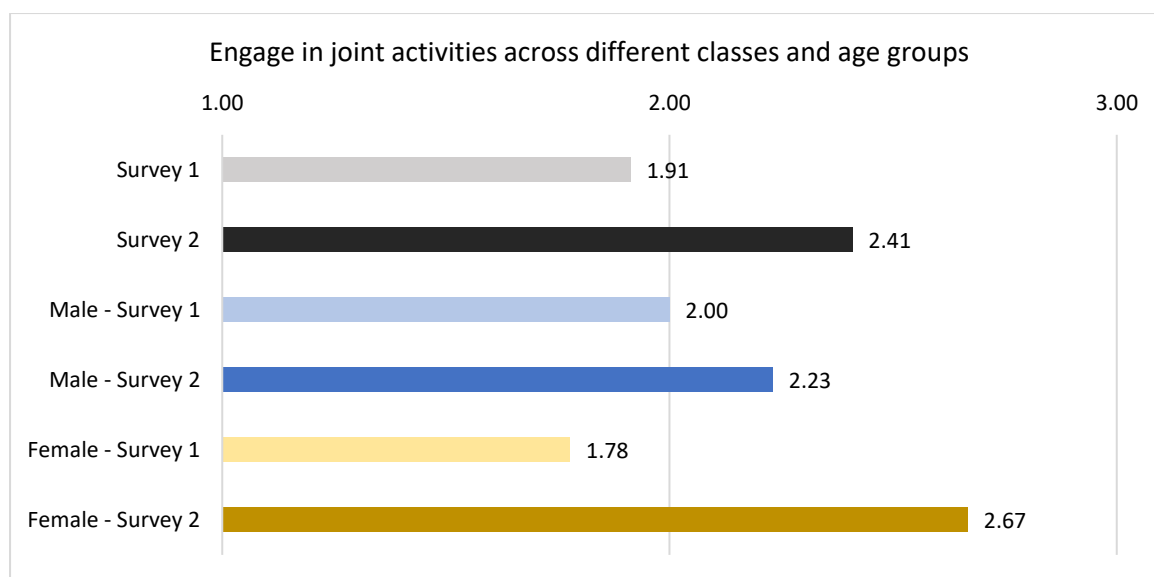
Figure 9 presents another change in the female participants, who as a group initially considered the activity ‘**Observe other teachers’ classes and provide feedback**’ to be more important than did the group of male participants. However, in both groups, observation of other teachers’ classes and the provision of feedback grew to a similar level of importance by the end of the programme.



1 = not important, 3 = very important

Figure 9: Observe other teachers’ classes and provide feedback

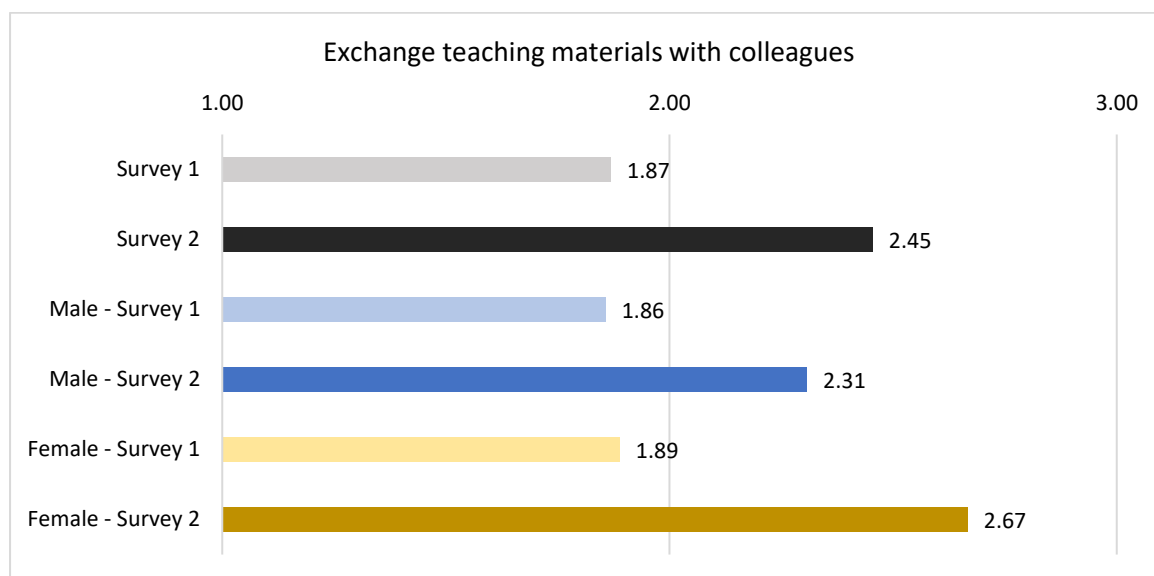
A strong change in female attitudes is observed in the question related to the activity ‘**Engage in joint activities across different classes and age groups (e.g. projects)**’ (Figure 10) for which female participants, as a group, initially reported a lower level of importance of these activities than did the male group. The growth in importance over the programme was marked for the female group, who reported high importance for this activity in Survey 2.



1 = not important, 3 = very important

Figure 10: Engage in joint activities across different classes and age groups (e.g. projects)

Both the male and female participants reported in Survey 1 that ‘**Exchange (of) teaching materials with colleagues**’ (Figure 11) was an activity of low importance. Analysis of the responses to this statement by gender demonstrates a strong shift in the perception of the group of female participants; that is, in Survey 2 the female participants rate this activity as important or highly important, but the male group shows only a slight shift over the course of the programme to some importance.



1 = not important, 3 = very important

Figure 11: Exchange (of) teaching materials with colleagues

When participants were asked to think more broadly about improving the education system, the statements relating to working collaboratively with other teachers in different ways were considered more important at the end of the programme than they were at the beginning.

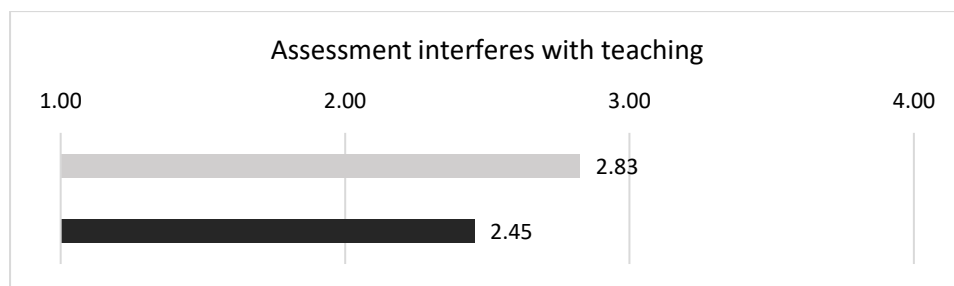
Overall, teacher confidence to face challenges across the six areas documented in the questions in the two surveys did not improve or diminish, with the exception of the participants’ responses to feeling confidence when working with other teachers (i.e. the responses to Survey 2 indicated minor growth in confidence in working with other teachers). This was supported by individual comments in the survey about what participants ‘would like to improve’. These individual comments included following suggestions to improve: ‘collaborate with other teachers’, ‘communicate with other teachers in different schools’, ‘I believe that teachers who work together are working smart’, and ‘(improve) ... relationships in school staff and work together to achieve our goals’.

Male teachers were more likely to report that they had an adequate skill set for ‘**Working together with other teachers**’ at the end of the programme than at the beginning. Female teachers were more likely to report that they had an adequate skill set to deal with ‘**managing student behaviour**’ and ‘**staying true to their beliefs**’ at the end of the programme than at the beginning.

Administering Assessment

In Surveys 1 and 2, participants were asked to indicate their level of agreement or disagreement with nine statements relating to student assessment (Figure 12). There were no

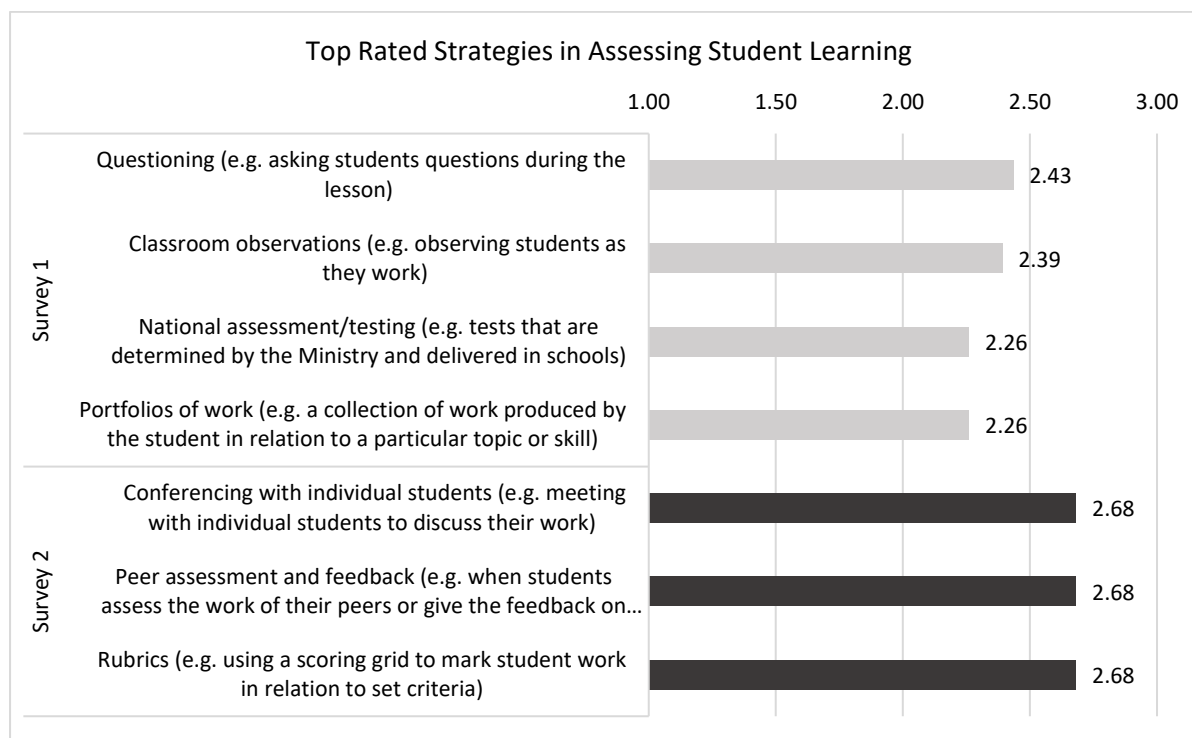
discernible shifts in the participants’ responses to the statements over the duration of the programme, except to the statement ‘**Assessment interferes with teaching**’ for which their initial slight agreement moved towards disagreement by the conclusion of the programme, suggesting the development of some broader understanding of the value of assessment.



1 = strongly disagree, 4 = strongly agree

Figure 12: Administering Assessment

Stronger shifts in participants’ responses were evident when they were asked about specific assessment strategies. At the beginning of the programme, the following three main assessment strategies considered very important were: 1) classroom observations; 2) questioning; 3) national assessments or portfolios of work (Figure 13). However, the responses in Survey 2 at the conclusion of the programme rated national assessment/testing of lower importance. However, conferencing with individual students, peer assessment and feedback and rubric use were rated important in Survey 2.



1 = not important, 3 = very important

Figure 13: Top Rated Strategies in Assessing Student Learning

However, the strongest reported growth in importance was for the use of rubrics to mark student work according to set criteria. This result was supported by the survey

responses provided to statements about the most important issues related to improving the education system in the KSA. The statement ‘Using competency-based assessments’ also grew strongly in reported importance across the programme (Figure 14).

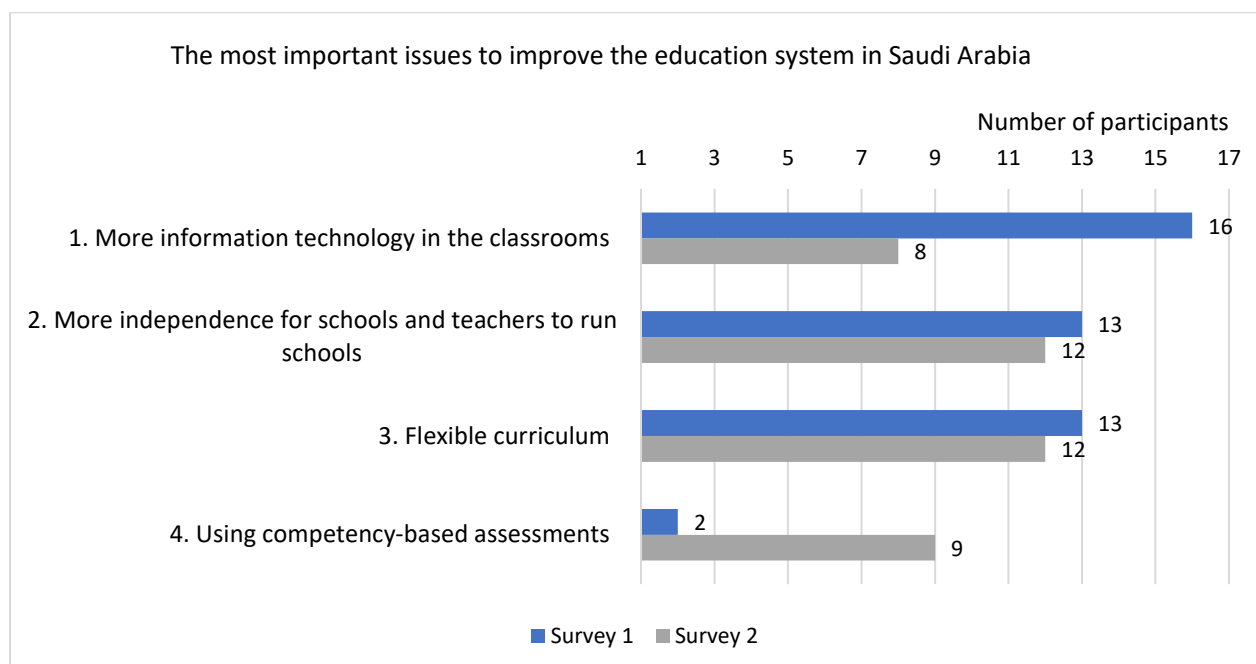


Figure 14: The most important issues to improve the education system in Saudi Arabia

Two issues were highlighted as the most important for improving the Saudi education system: more independence for schools and having a more flexible curriculum. Interestingly, participants initial responses stating that having more information technology in the classrooms is very important diminished across the two surveys.

Findings: Observations, Interviews and Artefacts

In addition to the survey responses, qualitative data were collected through observations of group discussions, individual interviews and the participants’ projects outlining their plans for change.

Reflecting on The First Immersion (Group Discussion)

Following the first five-week immersion experience in schools, the participants identified several aspects about Australian classrooms they found surprising and interesting. They were surprised by the expectations placed on students in relation to their capacity to learn and their ability to be responsible for their own behaviour. Participants commented on the surprisingly high expectations related to learning placed on young children (e.g. five-year-old children learning history and using computers); the high expectations placed on students to take collective responsibility for maintaining the school and learning environment (e.g. picking up rubbish); the high expectations for students to take personal responsibility for their own learning (e.g. monitoring their own learning needs); and the high expectations that students should be active and independent learners in the classroom. The participants being surprised by these expectations and by the independence displayed by the students in the

classroom lessons suggests their previous experiences were of more traditional classrooms characterised by higher levels of teacher direction and more passive and dependent students.

Another interesting point made in the first group discussion was related to the purpose of education. Two participants commented on their belief that the students in Australia were being better prepared for the real-world experiences they would face after school. One male computer science teacher was excited that the students were learning to use the same tools and software that were currently used in industry (which he stated was not the case in his school in Saudi Arabia) and that students learned industry-relevant skills that are more closely related to the skills they will need in the real world (e.g. they learn practical graphic design rather than computer science). In these comments, we observed a sense of frustration and concern about how well Saudi students are being prepared for life beyond school. This suggests a strong belief that the purpose of education is to prepare students for life in the real world and to produce 'workers' who are ready for work. One female participant explicitly connected the higher expectations of student independence in Australian classrooms with the students' preparedness for the workplace by stating that independence during individual task completion was good because 'in the real world the boss will not be standing there making sure you get the work done'.

This first school immersion was characterised by participants observing, discussing and questioning the more obvious differences between Australian schools and the schools with which they are familiar in Saudi Arabia. At this stage of the programme, the participants were not yet focused on making plans for change and this may have limited their learning in some ways. As one participant reflected during the final individual interview:

Actually, I think the biggest impact in this programme was in the second school immersion, not the first, because in the second school immersion I started to narrow my learning. Because in the first school immersion, when I went to the school, I had no specific aim, so I went for no purpose, just to observe. But in the second school immersion I start to focus on a specific area, for example professional learning communities and teacher practice, teacher planning. So, when I went for this, I started to learn more.

Individual Projects

Half-way through the programme, the participants were required to indicate the issues they would like to focus on for their individual projects (i.e. the Action Research Plan). Throughout the second half of the programme, the participants developed this plan for change and communicated their plans in the form of a poster. Examining these artefacts, it is possible to see similar themes emerge as were identified through the surveys. These include advocating for change in the role of the students and in the role of teachers, as well as an intention to collaborate more closely with colleagues to facilitate change in their schools. Half of the participants expressed a desire for students to be more engaged, more active and/or more independent in their own learning. This desire expresses an implicit and sometimes explicit belief that their students are capable of more engagement than they are currently demonstrating, including more independence, deeper thinking and understanding more complex concepts. For example, some of the teachers included plans for students to undertake self-assessment practices, student-driven research projects and activities designed for reflection on their own learning. Unsurprisingly, most of the participants ($n = 21$) proposed some change to their teaching practice, often aiming to apply new teaching strategies (e.g. using rubrics) or integrate new technologies into their teaching (e.g. bring your own device programmes).

Interestingly, some of the participants appeared to describe the desire to make changes that did not simply involve making additions to their current practices, but rather would mean a shift in their role in the classroom. This shift in beliefs about the teachers' role took two different forms, and while both aimed for students to take a more active role in learning, the resulting shift in the teacher's role was quite different. For one group of participants, promoting greater independence and active involvement of the students appeared to shift the role of the teacher to one of co-collaborator or facilitator of student learning. This included plans to provide opportunities for students to develop the skills necessary for researching, creative thinking, problem solving and self-regulation of learning. For these teachers, the shift in expectations for their students appeared to be accompanied by a realisation that this needed to be met with a change to their own practice. In contrast, another group of teachers seemed to express that the increased expectations for student independence meant a decrease in teacher responsibility and a diminishing of their role to one of manager. This perception of diminished responsibility was primarily in relation to the use of technology, where the teacher's role was to provide access to the technology and the student's role was then to learn independently while using the technology, as seen in one participant's stated aim that the 'student depends on themselves'.

More than half of the participants ($n = 16$) explicitly addressed the desire to involve colleagues in their plans for change. This involvement ranged from simply sharing their experiences and ideas with colleagues to more detailed plans focused directly on establishing professional learning communities within their school. Many of the teachers were interested in improving teacher collaboration within their schools after observing this practice in their Australian immersion schools. Eight teachers decided to explore this topic together by creating a presentation on professional learning communities, drawing on the resources developed by the Victorian Department of Education and Training as well as on their practical experience and interviews they conducted with teaching staff from their immersion schools. The challenges for Saudi Arabia identified by the Saudi teachers identified were the highly competitive nature of the teaching profession, the hierarchical structure of schools in Saudi Arabia, and lack of trust and collaborative culture. The group developed a set of recommendations for the Ministry in Saudi Arabia that was presented at the educational forum held at the University of Melbourne. It is worth emphasising that the group consisted of male and female teachers who had different professional experiences. It was interesting to see such a successful enactment of the professional learning community. Many of the participants planned to implement this idea of collaboration into their own schools, which suggests that they perceive that collaboration among colleagues has potential benefits for teaching and learning in their schools that would outweigh the potential costs (e.g. effort, time and resources expended) involved in addressing the challenges they had identified.

Reflecting on the programme experience

Twelve participants were interviewed at the end of the programme to capture their reflections on the programme. Specifically, they were asked from which part of the programme they learned the most and what was the most valuable or useful thing they learned during the programme. Most of the interviewees ($n = 10$) identified the school immersion as the most valuable experience for their own learning, with a smaller number ($n = 6$) stating that the university-based sessions were also key to their learning.

The most valuable or useful things the interviewees learned during the programme can be grouped into two broad themes. First, the interviewees identified aspects of Australian schools that they would like to introduce into their own schools. These included the use of

technology in the school (e.g. bring your own device programmes), innovative uses of open spaces within the schools, and the provision of opportunities for students to take a leadership role in the school. Second, the interviewees identified aspects of teacher practice that they hoped to adopt in their own teaching. These included the use of questioning to prompt student thinking during lessons, teacher collaboration (e.g. team teaching), student-centred approaches to teaching (e.g. building relationships with students, differentiating instruction), and the use of formative assessment. Most interviewees' ($n = 9$) responses emphasised the changes they had experienced to their own thinking over the course of the programme or the changes they were hoping to make to their own practice when they returned to the KSA. Some provided clearly articulated reflections on shifts in thinking, as seen in the following excerpt:

I think this is the greatest version of me. As a teacher, how to connect with my students, how I can become more closer to them, knowing their needs. I know it's going to be a bit hard because I've got a huge number of students but I think I can manage to be close to each student and build that relationship between the teacher and the student, because I think I was missing that before I came here. I was just like delivering the information and then shut the door. But I don't think so; I'm not going to do that anymore, it's different.

While all participants identified changes they were hoping to introduce (either to their own practice or to their school) as a result of their experience in the programme, one spoke explicitly about maintaining the connections with the Australian teachers she had met as a way of continuing her own learning beyond the experience as well as a way of facilitating the learning of her colleagues:

The best thing is the contact with the teachers. Now after we finish, I will continue that contact with the teachers to take a lot of information, and this is a kind of collaboration between Saudi teachers and Australian teachers. My colleagues back in Saudi Arabia asked me to please give them emails for the science teacher or computer science teachers and I did that.

Discussion

Like the aim of many teacher professional development programmes, the aim of the Melbourne Graduate School of Education's Building Leadership for Change through School Immersion programme is to influence the participating teachers' beliefs about teaching and learning, develop their understanding of specific teaching practices (e.g. use of developmental rubrics), and support them to develop plans for changing their practice in the KSA. Arguably, the strength of the programme was found to be its ability not only to connect these teachers with current educational research and evidence-based practices, but also to provide them with multiple opportunities to see how those practices are implemented in Australian classrooms. The two school immersion experiences provided multiple opportunities for participating teachers to engage in reflective discussions with university mentors about specific instances of professional practice observed within the school. This case-based approach to reflecting on the professional practice, as described by Clarke et al. (2013), provided a reference point for teacher reflection, and the cross-cultural nature of the immersion experience provided challenged the teachers' existing beliefs, knowledge and practices in relation to teaching and learning. Because of the extended nature of the immersion experiences, participants were able to ask questions, observe, participate in planning discussions and professional development opportunities in schools, and explore topics that were personally relevant and interesting to them. Following recommendations in

the literature (Timperley et al., 2007; Wilson, 1982), participants were regularly supported to actively immerse themselves in these unfamiliar settings and reflect on their experiences as a key driver for their own development. This meant that participants were encouraged to take an active and leading role in their own learning, with the aim that this would provide a strong foundation for their continued development beyond the programme. From the lens of the Interconnected Model of Teacher Professional Growth (Clarke & Hollingsworth, 2002), the programme provided changes to the external domain through the school immersion and the professional development sessions, as well as through the independent study teachers undertook in preparing for their Action Research Plans. Alongside these changes, there was evidence of changes occurring in the personal, practice and outcome domains through the multiple opportunities to put new ideas and practices into action and reflect on these experiences of enaction.

By the end of the programme, most participants appeared to have developed a new appreciation of students' capabilities, and new expectations for students to be independent, active learners in the classroom. This suggests a potential change to the domain of consequence in relation to the outcomes these teachers were now expecting to see in their students. This supports the findings of previous research reporting that case-based discussions such as those utilised in this programme lead to a shift towards teachers adopting student-centred approaches to teaching (Clarke et al., 2013). The shift in thinking noted in the participants can be traced back to the first immersion experience, where their reflections show an awareness of the different expectations placed on Australian students. In general, it seems the participants developed new ideas and expanded notions of what students might be capable of as a result of their experiences in the immersion, suggesting a change in the personal domain. Participants' development in relation to thinking about the role of the teacher is less clear. According to the survey results, many of their beliefs about their own role in student learning did not change. For example, they agreed that their role was to facilitate student inquiry and to demonstrate procedures for students to follow, and this did not change over the course of the programme. There were signs that they were beginning to think differently about how best to facilitate student learning, and these shifts appear to echo their new conceptions about the ability of students to be active and independent learners. For example, in Survey 2, the participants reported having more positive perceptions of student collaboration and noise in the classroom and placed increased importance on thinking skills, peer assessment and feedback. In their final projects (i.e. the Action Research Plan), it was evident that some teachers were making a clear connection between changes to the role of the student and changes to the role of the teacher. However, some appeared to see this as a reimagining of roles, where both teacher and student must play an active role in learning, while others appeared to simply move the responsibility from teacher to student so that students were now active and teachers were now passive managers. While attempts were made to challenge such misconceptions during reflections with university mentors, it may be that a deeper understanding of how learning is facilitated in a student-centred classroom will only be achieved when teachers are given the opportunity to engage in professional experimentation when they return to Saudi Arabia. This may provide them with chance to learn through enacting these new ideas and practices in their classroom and reflecting on these experiences in an ongoing and iterative fashion, as suggested by Clarke and Hollingsworth (2002). This might allow for more significant change to occur in the domain of practice.

In relation to teacher collaboration, the programme provided opportunities for participants to see first hand the ways that Australian teachers collaborate in their schools, and many of the participants reflected on the similarities and differences they see in their own schools, suggesting this approach was useful in supporting teachers to connect ideas and

experiences to their own professional practice. This demonstrates that the immersion experiences offered opportunities for the participants to witness what is possible in relation to teacher collaboration and this alone may have influenced a shift in their teacher thinking. However, the nature of the learning tasks (e.g. group presentations) in the programme also offered the participants the opportunity to develop their skills as collaborators through the processes of enactment and reflection, and provided some evidence of change in the domain of practice. This is particularly true for the group of eight teachers that developed the presentation about professional learning communities. Such opportunities to try out new ideas and practice new skills are required if any new learning is to take hold and continue to grow beyond the professional development programme (Timperley et al., 2007).

The findings presented here suggest there were some shifts in the teachers' beliefs about the importance of teacher collaboration and some changes to their thinking about teaching and learning within the classroom, but some beliefs remained unchanged. While it may be tempting to conceive of teacher beliefs as being represented by a dichotomy of traditional, teacher-centric beliefs and more constructivist, student-centred beliefs, employing such a clear-cut division may be problematic (Brown, Lake & Matters, 2011). There is evidence to suggest that it may be more accurate and productive to think of beliefs as ranging from simple to complex, rather than trying to characterise a person as having one set of beliefs or another (Richardson, 1996; Zheng, 2015). From this perspective, the aim of professional development might be to expand teachers' thinking about teaching and learning, rather than to replace existing beliefs altogether, and the Melbourne Graduate School of Education's programme certainly succeeded in expanding the thinking of the participants. If we also heed Kennedy's (2016) observation that those responsible for teacher professional development should seek to connect with our existing knowledge of learning, then it is reasonable to assume that teachers will begin and complete the professional development programme at varying levels of development. The qualitative data collected in this study offers some evidence of this, particularly in relation to how teachers might facilitate student learning in student-centred classrooms.

While there was evidence of change in each of the four domains of the Interconnected Model of Professional Growth, it is also true that there were limits to the opportunities for teachers to develop because of the nature of the professional learning programme. Undeniably, the most significant limitation is the inability of the programme to continue supporting the teachers following their return to Saudi Arabia as they attempted to implement their Action Research Plans. Despite attempts to prepare the teachers for the potential challenges and barriers to change they will face when returning to their classrooms, without ongoing support as they attempt to enact their new ideas and reflect on their experiences, it may be that the period of growth inspired by the programme is not sustained. This issue of sustaining teacher change has been identified as a persistent challenge for those involved in teacher professional learning (Kennedy, 2016). While this programme was afforded the opportunity to support teacher learning over extended immersion experiences and through ongoing professional mentoring, it is true that the support ends at a potentially critical time in the teacher's development.

Conclusion

The KSA has experienced unprecedented investment in its education system in recent years, including a significant amount of attention being paid to the professional development of teachers. The experiences of 25 teachers who participated in the Building Leadership for Change through School Immersion professional development programme delivered by the

University of Melbourne in 2018 show a range of effects on their professional beliefs. Although some of the more traditional perceptions of teaching and learning remained unchanged, there were a number of aspects relating to teaching beliefs that were found to have been challenged and expanded. It is clear that these teachers returned home with high hopes and aspirations related to the possibilities of change in classroom practice, school-wide teaching approaches, and system-related reforms. It would be interesting to extend this research to track these teachers in the year following the conclusion of the programme to gather evidence on how the new attitudes and aspirations have been enacted and implemented in the Saudi schools. There is some evidence from recent email communication with the participants that indeed some changes have been occurring. These changes include rearranging the classroom learning environment, differentiated teaching, and using digital tools and critical reading and writing strategies. It is clear that these new strategies were the most attractive to the participants and the most realistic to implement immediately following the programme because they relate to teacher practice in the classroom, where teachers have some freedom to decide how they teach. Any change that can be made at the school and system level through reforms would need more time to implement and ensure they reflect the changing attitudes and perceptions of teaching and learning.

References

- Alger, C. L. (2009). Secondary teachers' conceptual metaphors of teaching and learning: Changes over the career span. *Teaching and Teacher Education*, 25, 743–751. <https://doi.org/10.1016/j.tate.2008.10.004>
- Alghamdi, A. M. (2015). *Exploring secondary school principals' and Arabic language teachers' beliefs and practices with technology in Saudi Arabia*. Unpublished doctoral thesis, Griffith University, Brisbane, Queensland.
- Alkahtani H., Dawson R., & Lock R. (2013). The impact of culture on Saudi Arabian information systems security. In E. Georgiadou, M. Ross, & G. Staples (Eds.). *Proceedings of the 21st International Conference on Software Quality Management (SQM 2013)*. Southampton: Quality Comes of Age, pp. 201 – 210. Retrieved from <https://dspace.lboro.ac.uk/dspace-jspui/bitstream/2134/13814/3/Impact%20of%20culture-final3.pdf>
- Antoniou, P. & Kyriakides, L. (2013). A dynamic integrated approach to teacher professional development: Impact and sustainability of the effects on improving teacher behaviour and student outcomes. *Teaching and Teacher Education*, 29, 1-12. <https://doi.org/10.1016/j.tate.2012.08.001>
- Australian Institute for Teaching and School Leadership [AITSL]. (2014). *Designing professional learning*. Retrieved from https://www.aitsl.edu.au/docs/default-source/default-document-library/designing_professional_learning_report.pdf?sfvrsn=83c1ec3c_0
- Boston Consulting Group. (2019). *A new blueprint for education in Saudi Arabia*. Retrieved from <https://www.bcg.com/en-au/industries/education/new-blueprint-for-education-in-saudi-arabia.aspx>
- Brown, G. (2011). Teachers' conceptions of assessment: Comparing primary and secondary teachers in New Zealand. *Assessment Matters*, 3, 45-70. <https://doi.org/10.18296/am.0097>
- Brown, G., Lake, R., & Matters, G. (2011). Queensland teachers' conceptions of assessment: The impact of policy priorities on teacher attitudes. *Teaching and Teacher Education*, 27(1), 210-220. <https://doi.org/10.1016/j.tate.2010.08.003>

- Buehl, M. M., & Fives, H. (2009). Exploring teachers' beliefs about teaching knowledge: Where does it come from? Does it change. *The Journal of Experimental Education*, 77(4), 367-408. <https://doi.org/10.1016/j.tate.2010.08.003>
- Clarke, D., & Hollingsworth, H. (2002). Elaborating a model of teacher professional growth. *Teaching and Teacher Education*, 18(8), 947-967. [https://doi.org/10.1016/S0742-051X\(02\)00053-7](https://doi.org/10.1016/S0742-051X(02)00053-7)
- Clarke, D., Hollingsworth, H., & Gorur, R. (2013). Facilitating reflection and action: the possible contribution of video to mathematics teacher education. *Sisyphus-journal of education*, 1(3), 94-121.
- Creemers, B., Kyriakides, L., & Antoniou, P. (2013). *Teacher professional development for improving quality of teaching*. Cham: Springer <https://doi.org/10.1007/978-94-007-5207-8>
- Creswell, J. (2003). *Research design: Qualitative, quantitative, and mixed method approaches*. Thousand Oaks, CA: Sage.
- Darling-Hammond, L., & Bransford, J. (Eds.). (2007). *Preparing teachers for a changing world: What teachers should learn and be able to do*. San Francisco, CA: Jossey-Bass.
- Fives, H., & Buehl, M. M. (2011). Spring cleaning for the 'messy' construct of teachers' beliefs: What are they? Which have been examined? What can they tell us? In K. R. Harris, S. Graham, T. Urdan, S. Graham, J. M. Royer, & M. Zeidner (Eds.), *APA Educational Psychology Handbook, Vol. 2. Individual Differences and Cultural and Contextual Factors* (pp. 471-499). Washington, D.C.: American Psychological Association. <https://doi.org/10.1037/13274-019>
- Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching*, 8(3), 381-391. <https://doi.org/10.1080/135406002100000512>
- Hattie, J. (2003, October). *Teachers make a difference: What is the research evidence?* [Paper presentation]. Building Teacher Quality: What does the research tell us ACER Research Conference, Melbourne, Australia. Retrieved from http://research.acer.edu.au/research_conference_2003/4/
- Jensen, B., Sonnemann, J., Roberts-Hull, K., & Hunter, A. (2016). Beyond PD: Teacher professional learning in high-performing systems. Washington D.C.: National Center on Education and the Economy. Retrieved from: <http://www.ncee.org/wp-content/uploads/2015/08/BeyondPDWeb.pdf>
- Kennedy, M. M. (2016). How does professional development improve teaching? *Review of Educational Research*, 86(4), 945-980. <https://doi.org/10.3102/0034654315626800>
- Kervin, L., Vialle, W., Howard, S., Herrington, J. & Okely, T. (2016). *Research for educators*. (2nd Ed.). South Melbourne, Australia: Cengage Learning.
- Kingdom of Saudi Arabia [KSA]. (2017). *Vision 2030*. Retrieved from https://vision2030.gov.sa/sites/default/files/report/Saudi_Vision2030_EN_2017.pdf
- Krippendorff, K., & Bock, M. (Eds.). (2008). *The content analysis reader*. Thousand Oaks, CA: Sage.
- Levin, B. B., He, Y., & Allen, M. H. (2013). Teacher beliefs in action: A cross-sectional, longitudinal follow-up study of teachers' personal practical theories. *The Teacher Educator*, 48(3), 201-217. <https://doi.org/10.1080/08878730.2013.796029>
- Meiers, M., & Ingvarson, L. (2005). *Investigating the links between teacher professional development and student learning outcomes*. Melbourne, Victoria: Australian Council for Educational Research. Retrieved from https://research.acer.edu.au/professional_dev/2

- National Center for Education Statistics [NCES]. (2018). International comparisons: Reading literacy at grade 4. In J. McFarland, B. Hussar, J. Zhang, X. Wang, K. Wang, S. Hein, M. Diliberti, E. Forrest Cataldi, F. Bullock Mann, & A. Barmer. (Eds.). *The condition of education 2019* [pp. 1-6]. Washington, D.C.: NCES. Retrieved from https://nces.ed.gov/programs/coe/pdf/coe_cns.pdf.
- Organisation for Economic Co-operation and Development [OECD]. (2009). *Creating effective teaching and learning environments: First results from TALIS*. Paris: OECD. Retrieved from <http://www.oecd.org/education/school/43023606.pdf>
- OECD. (2018). *Education GPS. Saudi Arabia - overview of the education system (EAG 2018)*. Retrieved from <http://gpseducation.oecd.org/CountryProfile?primaryCountry=SAU&treshold=10&to pic=EO>
- Pence, H. M., & Macgillivray, I. K. (2008). The impact of an international field experience on preservice teachers. *Teaching and Teacher Education*, 24(1), 14–25. <https://doi.org/10.1016/j.tate.2007.01.003>
- Pennington, R. (2017). Saudi plans major overhaul to poorly performing education system. *The National*. Retrieved from <https://www.thenational.ae/uae/saudi-plans-major-overhaul-to-poorly-performing-education-system-1.683557>
- Richardson, V. (1996). The role of attitudes and beliefs in learning to teach. In J. Sikula (Ed.), *Handbook of research on teacher education* (2nd ed, pp. 102–119). New York: Macmillan.
- Saudi Gazette. (2018, February). *Education is priceless*. Retrieved from <http://saudigazette.com.sa/article/527529/Opinion/Editorial/Education-is-priceless>
- Schleicher, A. (2016). *Teaching excellence through professional learning and policy reform: Lessons from around the world*, International Summit on the Teaching Profession, Paris: OECD Publishing. Retrieved from <https://www.oecd-ilibrary.org/education/teaching-excellence-through-professional-learning-and-policy-reform> <https://doi.org/10.1787/9789264252059-en>
- Stewart, C. (2014). Transforming professional development to professional learning. *Journal of Adult Education*, 43(1), 28-33.
- Teaching and Learning International Survey [TALIS]. (2013). *Teacher questionnaire*. Retrieved from <http://www.oecd.org/education/school/TALIS-2013-Teacher-questionnaire.pdf>
- Teng, L. S. (2016). Changes in teachers' beliefs after a professional development project for teaching writing: two Chinese cases. *Journal of Education for Teaching*, 42(1), 106-109. <https://doi.org/10.1080/02607476.2015.1135228>
- Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development: Best evidence synthesis iteration (BES)*. Auckland, New Zealand: New Zealand Ministry of Education. Retrieved from <http://www.oecd.org/education/school/48727127.pdf>
- United Nations Educational, Scientific and Cultural Organization [UNESCO]. (2016). *Data for sustainable development goals. Education and literacy - Saudi Arabia*. Retrieved from <http://uis.unesco.org/country/SA>
- Vermunt, J.D. (2014). Teacher Learning and Professional Development In S. Krolak-Schwerdt, S. Glock, & M. Böhmer (Eds.). *Teachers' professional development: The future of education research*, (pp. 79-96). Rotterdam: Sense Publishers.
- Wilson, A. H. (1982). Cross-cultural experiential learning for teachers. *Theory Into Practice*, 21(3), 184-192. <https://doi.org/10.1080/00405848209543004>

- Wiseman, A. W., Alromi, N. H., & Alshumrani, S. (2014). Challenges to creating an Arabian Gulf knowledge economy. In Alshumrani, S., Alromi, N. H., & Wiseman, A. W. (Eds.) *Education for a knowledge society in Arabian Gulf countries* (pp. 1-34). Bingley, U.K.: Emerald Group Publishing. <https://doi.org/10.1108/S1479-367920140000024002>
- Woodside, A. G. (2010). *Case study research: Theory, methods and practice*. Bingley, U.K.: Emerald Group Publishing.
- Zhao, Y., Meyers, L., & Meyers, B. (2009). Cross-cultural immersion in China: Preparing pre-service elementary teachers to work with diverse student populations in the United States. *Asia-Pacific Journal of Teacher Education*, 37(3), 295-317. <https://doi.org/10.1080/13598660903058925>
- Zheng, H. (2015). *Teacher beliefs as a complex system: English language teachers in China*. Cham: Springer. <https://doi.org/10.1007/978-3-319-23009-2>

Appendix A. Survey Questions

1. What is your gender? (female, male)
2. What is your age?
3. Are you employed full-time? (yes, no)
- 4a. Please choose the level at which you usually teach
 - Early childhood
 - Primary
 - Secondary
 - Special education
- 4b. Teaching subject ...
5. Which one of the following best represents your role/s?
 - Teaching only
 - Teaching and administration
 - Teaching and leadership
 - Other role, please specify...
6. How many years of teaching experience do you have?
7. What is the highest level of formal education you have completed?
 - High school
 - Diploma
 - Bachelor Degree
 - Master Degree
 - Doctoral Degree,
 - Other, please specify ...
8. Have you completed a teacher education or training program? (yes, no)
9. Have you ever been abroad for professional purposes in your career as a teacher or during your teacher education/training? *Please mark as many choices as appropriate.*
 - No
 - Yes, as a student as part of my teacher education
 - Yes, as a teacher as arranged by my school or school district
 - Yes, by my own initiative
 - Yes, as a teacher in a regional or national program

10. If yes in the previous question, what were the purpose(s) of your visit(s) abroad?
Please mark as many choices as appropriate.
- Studying, as part of your teacher education
 - Language learning
 - Learning of other subject areas
 - Accompanying visiting students
 - Establishing contact with schools abroad
 - Teaching
 - Other, please specify...
11. We would like to ask about your personal beliefs on teaching and learning.
Please indicate how strongly you agree or disagree with each of the following statements.
(Strongly disagree, disagree, agree, strongly agree)
- My role as a teacher is to facilitate students' own inquiry.
 - Students working together are too disruptive for effective learning
 - Students learn best by finding solutions to problems on their own.
 - Teachers must deliver content knowledge first before students can start thinking for themselves.
 - Students should think of solutions to problems themselves before the teacher delivers answers.
 - Students need to learn basic skills through repetition.
 - Thinking and reasoning processes are more important than specific curriculum content.
 - My role as a teacher is to demonstrate to students the right way to think and do things, for them to follow.
 - A noisy classroom can be a positive indicator of student engagement.
 - Memorization of material is important part of learning.
 - My teaching methods and pedagogy are based on individual needs of each student.
 - Lecture model of teaching is highly effective for learning.
12. If you had the option to undertake the following activities at your school, how important would each of them be, for you? (Not important, important, very important)
- Teach jointly as a team in the same class
 - Observe other teachers' classes and provide feedback
 - Engage in joint activities across different classes and age groups (e.g. projects)
 - Exchange teaching materials with colleagues
 - Work with other teachers in my school to ensure common standards in evaluations for assessing student progress
 - Are there other activities you consider important?
13. Please indicate your agreement with the following statements about assessment:
(Strongly disagree, disagree, agree, strongly agree)
- Assessment provides information on how well schools are doing
 - Assessment determines if students meet standards
 - Assessment is a way to determine how much students have learned from teaching
 - Assessment helps students improve their learning
 - Assessment information modifies ongoing teaching of students
 - Assessment results can be depended on

- Assessment interferes with teaching
 - Teachers conduct assessments but make little use of the results
 - Teachers should take into account the error and imprecision in all assessment
14. Thinking about assessing students' learning, how do you rate the following strategies: (Not important, important, very important)
- Classroom observations (e.g. observing students as they work)
 - Questioning (e.g. asking students questions during the lesson)
 - Teacher developed tests (e.g. an end of unit test made by the teacher/s)
 - Open-ended tasks (e.g. a task where students can answer or respond in different ways)
 - National assessment/testing (e.g. tests that are determined by the Ministry and delivered in schools)
 - Conferencing with individual students (e.g. meeting with individual students to discuss their work)
 - Student self-evaluation/reflection (e.g. when students assess their own work or reflect on their progress)
 - Peer assessment and feedback (e.g. when students assess the work of their peers or give the feedback on their work)
 - Rubrics (e.g. using a scoring grid to mark student work in relation to set criteria)
 - Portfolios of work (e.g. a collection of work produced by the student in relation to a particular topic or skill)
 - Pre-assessment task/test (e.g. assigning a test before teaching a topic)
 - Post- assessment task/test (e.g. assigning a test after teaching a topic)
15. To what extent do you believe you have an adequate skill set to deal with ... (Strongly disagree, disagree, agree, strongly agree)
- Difficult content questions
 - Managing student behavior
 - Implementing curriculum
 - Getting students to be involved
 - Working together with other teachers
 - Staying true to my beliefs
 - I would like to improve ...
16. How strongly do you agree or disagree with the following statements concerning your personal attitudes? (Strongly disagree, disagree, agree, strongly agree)
- I always listen carefully to students.
 - I am confident about my judgements about students.
 - I have doubts about my ability to succeed as a teacher.
 - I feel angry when colleagues express ideas different from my own.
 - I help students and colleagues in trouble.
 - I admit when I do not know something if a student asks a question in class.
 - I am irritated by students who ask for favours.
17. If you were in a position to provide suggestions to improve the education system in Saudi Arabia, what would be TOP THREE most important issues? Please rank only three issues from one to three and leave the other responses blank.
- Changing funding system
 - More independence for schools and teachers to run schools
 - Flexible curriculum
 - More support for students with special needs

- Collaborative teaching
 - Flexible classrooms
 - Student-centred teaching
 - More information technology in the classrooms
 - Dialogic teaching
 - Using competency-based assessments
 - Other (please specify)
18. Please provide two current challenges of practice you are hoping to find support with during your time in Australia.
19. Thinking about what you experienced or learned so far in this program in Melbourne, was there anything that has helped you to understand that challenge better or given you ideas about how you might address that challenge when you return to Saudi Arabia?