

Pre-service teachers' articulation of their future selves

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Important elements of professional socialisation include a sense of identity or belonging within a professional community and a set of established or expected practices. In the context of pre-service teacher education, opportunities to reflect upon past and current personae and to imagine future possible identities may assist pre-service teachers to maximise their professional socialisation and traverse the threshold from expert student to novice professional. This article reports on findings from the first year of a longitudinal study conducted in a Bachelor of Education Primary degree. Participants were second-year pre-service teachers (N=87). Participant data were collected in Semesters 1 and 2, 2016 using an open-ended survey and interviews conducted prior to and following the first professional experience placement. Participants were invited to draw themselves as a teacher. Following other educational researchers, the study incorporated the drawings as a data source and extended the approach to go beyond inductive coding. This was achieved by incorporating the drawings' captions and triangulating the data with participants' responses to the characteristics of effective teachers and their concerns about the forthcoming professional placement. The drawings were not privileged over the text components; rather, they were examined in tandem.

Introduction

There has been much research into the identity formation of initial teacher education students as teachers (pre-service teachers) (see for example, Ballantyne, 2012; Bennett, 2013; Freer & Bennett, 2012; Glass, 2011; Izadinia, 2013). Avalos and Rios (2013) suggested that an iterative and reflective process that interrogates the social and cultural attributions of teaching as a profession moulds a teacher's professional identity. This encompasses individuals' personal meaning or sense of what it is to be a teacher. We posit that developing a professional teacher identity is also influenced by pre-service teachers' personal experiences of "being taught" and by media depictions of teachers (particularly film and television) that are exemplary (for example, *Stand by Me*, *Dead Poets' Society*, *Mr Holland's Opus*) or otherwise (for example, *Bad Teacher*). As such, pre-service teachers' professional identities are inextricably connected to their "personal narratives and experiences in social contexts" (Arvaja, 2016, p. 394), and in order for these identities to develop, preferably into a form that complements contemporary views on effective pedagogy (Lamonte & Engels, 2010), initial teacher education programs need to focus more on how pre-service teachers make sense of themselves as teachers, and less on the "acquisition of occupational assets and assessing their development in terms of pre-defined professional standards" (Arvaja, 2016, p. 392).

To encourage pre-service teachers to contemplate their professional self as a teacher, Britzman (2003) is one of several scholars who have advocated the need for teacher educators to provide opportunities and time for students to take stock of their beliefs about teaching and being a teacher, and to record this in multiple ways over time. We

assert that these records can form a “chronicle of becoming”: an illustration of students’ professional identity development through which they begin to recognise their multiple teacher selves. Critical moments in these chronicles are often aligned with a professional placement in a school setting, which disrupts the theoretical and aspirational teacher identity developed within the university and informs a more praxis-oriented and realistic teacher identity developed within the school context (Galman, 2009).

Why is professional identity important, and does its development warrant the research efforts it has received over the past two decades? The alarming attrition rates of early-career teachers, which in several countries is between 40% and 50% within the first five years of entering the profession (Gallant & Riley, 2014), has at times been attributed to the quality of teacher education programs. However, Beijaard, Meijer and Verloop’s (2004) review of the research on teachers’ professional identity reinforced the alignment between attrition and students’ self-knowledge and sense of identity (see also Guo, Zhao, Gao, Peng & Zhu, 2017). Similarly, Beltman, Mansfield and Price (2011) emphasised the need for the scaffolded development of robust professional teacher identity and resilience. Trede and McEwen (2012, p. 9) agreed with that contention - “challenging students to reflect on who they are and who they want to become provides them with a lens through which to make sense of and enrich their learning experiences”. Thomas and Beauchamp (2011) posited that the development of a strong sense of teaching self may be significantly linked to pre-service teachers’ well-being. Potentially, then, focused opportunities for students to dynamically and reflectively engage with their university context and their professional contexts, as teachers in schools, might enable the development of a positive professional identity formation, thereby lessening early-career attrition and burn-out. It is this thesis that was explored in the study reported here.

We were mindful that pre-service teachers hold vivid and influential images of teaching from their past experiences or episodic memory of events drawn from their school years. Between the late 1980s and the early 1990s, such images were discussed by multiple scholars including Clandinin and Connelly (1987), Nespor (1987), Clark (1988), Goodman (1988), and Calderhead and Robson (1991). It is perhaps not surprising then, that many researchers have since used drawings as a data source in research with higher education students (for example, Beltman, Glass, Dinham, Chalk & Nguyen, 2015; Brand & Dolloff, 2002; Freer & Bennett, 2012; McLean, Henson & Hiles, 2003; Rose, 2012; and Weber & Mitchell, 1995).

The influence of early socialisation and stereotypes can be seen in Chambers’ (1983) research into student perceptions of scientists, which resulted in the *Draw-a-Scientist-Test* (DAST) and reinforced the commonality of the stereotyped scientist as a ‘man in a laboratory coat’. Although it was initially criticised, DAST was further developed by Finson, Beaver and Cramond (1995) to include a checklist that facilitated analysis of the drawings. In its third iteration (Thomas, Pederson & Finson, 2001), DAST was further modified to create the *Draw-a-Science-Teacher-Test Checklist* (DASTTC), which included both an illustration and a narrative data component or *caption*. Since that time, multiple researchers have linked students’ portrayals of mental images as free-hand drawings with the development of their professional identity as educators (for example, Beltman et al.,

2015; Bennett, 2013; Garnesh, 2011; Mitchell, Theron, Stuart, Smith & Campbell, 2011). In each case, drawings have been categorised by identifying the consistent features of each image. This aligns with the visual content analysis employed by Rose (2012), in which visual images are coded according to key elements (i.e. teacher, students, and artefacts). Following Pridmore and Bendelow's (1995) research into children's perceptions of health, and in line with DASTTC, Clarebout, Depaepe, Elen, and Briell (2007) strengthened the analytical approach by requesting a caption to accompany each drawing.

The study reported here employed a free-hand illustration together with a caption. We expound our approach in the following section, and then present the findings, in which the student voice is represented by student-derived images and written captions. In the discussion, we consider how pre-service teachers view themselves at two points in time: as teachers prior to their first professional placement, including their concerns at that time; and after their placement, including how the placement impacted their identity and their thinking about the future.

Method

Drawings offer a different kind of glimpse into human sense-making than written or spoken texts do, because they can express that which is not easily put into words: the ineffable, the elusive, the not-yet thought-through. (Weber & Mitchell, 1995, p. 34).

This article reports on two surveys employed within the first year of a three-year, longitudinal study that sought to understand students' formation of professional teacher identity as they progressed through their initial teacher education program. The study was underpinned by Markus and Nurius' (1986) theoretical model of "possible selves", thereby prompting participants to reflect upon their present selves and to visualise possible selves they hoped, expected or feared they might become. The longitudinal approach most closely reflects an interpretivist case study of a student cohort over the second, third and final years of their program. In the first year of the longitudinal study, reported here, we sought to answer the following three research questions:

1. How do pre-service teachers visualise themselves as teachers prior to their first professional placement?
2. What are student teachers' concerns prior to and after this placement, and how do they differ over this time?
3. How does a professional placement experience impact student teachers' thinking about possible future selves?

The study extended the text-based approach inherent in possible selves research by incorporating student drawings. Following Bennett (2015), the study attempted to draw students away from the "right" or "expected" answers and towards more individualised and authentic responses. As noted above, the study also extended inductive coding of the drawings by including a text-based caption. In addition, we asked participants to respond to two open-ended questions:

1. What are the characteristics of effective teachers?
2. What concerns do you have about your first professional placement?

Participants were surveyed at the beginning of the first semester in their second year of study and again at the beginning of the second semester, following their initial professional experience placement. Semi-structured interviews enabled us to triangulate the data and challenged students to create meaning from their experiences (Trede & McEwen, 2012).

Participants

The participants in this study were second-year, undergraduate, teacher education students enrolled in a Bachelor of Education Primary degree in Semester 1, 2016. Eighty-seven of the cohort of 88 students consented to participate in the study. Students were enrolled in their first Professional Studies unit (*Professional Studies and Planning for Teaching*), which comprised a 12-week theory component followed by a 10-day professional experience placement in a school — the first placement of their program.

Data instruments

Survey 1 (Appendix) comprised a five-item, pen-and-paper survey and was completed during designated class time (approximately 20 minutes). The items in Survey 1 were based on those developed and used by Bennett (2016) in her visual narrative work with pre-service music teachers; these were adapted and then piloted in 2015 by the research team for use with primary pre-service teachers.

Survey 2 (Appendix) was created for this study and sought to provide a reflective space for the students following their first professional placement. Survey 2 was attached to each student's Survey 1 response (paired) so that participants could look back over their previous responses as part of their critical reflection. Each survey included a drawing prompt. To instil a sense of play and creativity in the activity, coloured pencils were made available.

Data analysis

In this study, drawings were not privileged over text; rather, they were examined in tandem to avoid researcher bias or misinterpretation. Following Bock, Iserman and Knieper's (2011) advice, interpretive and analytic processes remained distinct. This was achieved by establishing coding categories through a pilot of the initial survey (in 2015), followed by repeated waves of analysis until consensus on the codes was reached. In the final wave of analysis, inter-rater reliability exceeded the cut-off point of 0.8, achieving 0.95 agreement.

Analysis drew on the content analysis methods used by Rose (2012); the final codes were metaphor (M), teacher only (T), teacher and artefact/s (TA), teachers and student/s (TS) and teacher, student/s and artefact/s (TSA). Drawings from Survey 1 were coded

according to these five established categories. Figure 1 (a–e) provides a sample of each category. In this study, the T and TA categories were considered to be *teacher-centric*, whilst the TS and TSA categories were considered to be more *student-centric*. This was an assumed organisational construct that enabled the remaining analysis to be conducted in category groups. Note that the metaphor category was very small and it is reported in the findings only when relevant responses were received.

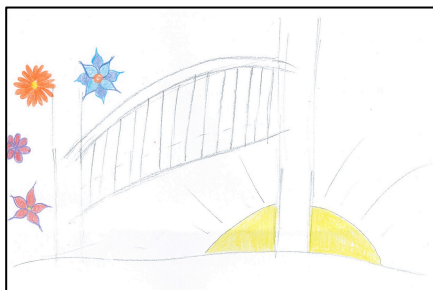


Figure 1a: Metaphor (M)

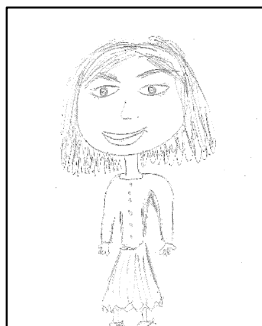


Figure 1b: Teacher (T)



Figure 1c: Teacher and artefact/s (TA)



Figure 1d: Teacher and students (TS)



Figure 1e: Teacher, student/s and artefact/s (TSA)

Figure 1a-1e. Drawings from Survey 1 illustrating the five established categories

Captions that accompanied the student drawings were analysed for themes as indicated by semantics. The characteristics of effective teachers (Survey 1, item 3) were analysed by recording each response, categorising similar adjectives or descriptive phrases (for example, *sound curriculum knowledge* and *knowledgeable*), and then determining the highest frequencies; a similar process was used for the concerns expressed in Survey 1, item 4 and the future-oriented question at Survey 1, item 5. Responses to Survey 2 were paired with Survey 1 responses using student identification numbers. Cross-tabulations were created to determine the relationship between drawing type and professional experience, and to ascertain whether initial concerns about teaching had changed after the first professional experience.

Ethical considerations

Each survey was identified with the use of a student number so that responses could be paired for analysis. A research assistant, not otherwise involved with the study, anonymised student responses prior to analysis. The same research assistant returned individual Survey 1 responses to the students so they could reflect on their initial responses when answering Survey 2.

Findings

Drawings: Survey 1, item 1

You are currently studying to be a primary school teacher. Please draw yourself as that teacher and describe what you have drawn.

The percentage of the cohort who represented themselves in each drawing category is shown at Table 1. Almost one-half (46%) of student teachers represented themselves in a context that acknowledged the three key components of a learning environment: teacher; students; and artefacts. A similar proportion of participants (44%) chose *not* to include the student, possibly suggesting a teacher-centred (or self-centred) focus rather than a student-centred focus.

Table 1: Proportion of each drawing category (N=87)

Drawing category	% of participant group
T (teacher only)	23
TA (teacher and artefact/s)	21
TS (teacher and student/s)	9
TSA (teacher, student/s and artefact/s)	46
M (metaphor)	1

In addition to the components contained within each drawing, we examined the location of the teacher and the artefacts that were included. Analysis identified the most frequent artefacts represented in the drawings to be a board (chalkboard, whiteboard or smartboard), and one or more student desks. Table 2 shows the distribution of these two artefacts in the TA and TSA categories and also records whether the teacher in those drawings was located at the front of the class.

The inclusion of a board and/or desk allowed us to see where, within the classroom, participants had situated the teacher. Recorded at Table 2, 22% of drawings in the TA category positioned the teacher at the front of the room, suggesting a traditional, didactic, expository teaching mode.

In the second category incorporating artefacts, TSA, students were also present. Within the TSA category, 47.5% of drawings included a board and no desks. The teacher was positioned at the front of the room in 77.5% of cases, and typically the students were seated (on chairs or the floor) in front of the board and the teacher. This portrays a very

traditional pedagogical approach and one that would be experientially familiar to the student teachers, but not one that was encouraged, modelled or practised within their university program.

Table 2: Artefacts illustrated and position of teacher at the front of the class (%)

Drawing category	Artefacts (percentages)			
	Board only	Desk/s only	Both	Teacher at front of the class
TA	16.5	22.0	39.0	22.0
TSA	47.5	7.5	22.5	77.5

Captions: Survey 1, item 1

The captions that accompanied the drawings were analysed for common themes or statements. The two most common were *dressing / looking professional* and *happy/smiling*. Figure 2 illustrates the occurrence of these within each of the four drawing categories; the metaphor category is not included as there was only one metaphor drawing and the two most frequent themes were absent.

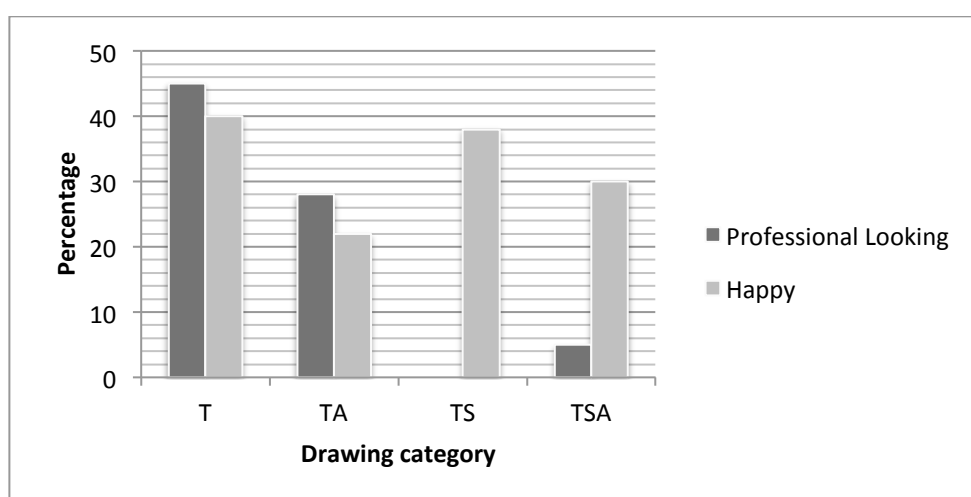


Figure 2: Proportion of participants indicating the two most frequent statements (N = 87; see Table 1 for categories)

We make reference to three further aspects, which will be pursued in the next year of the study.

- References to *looking professional* were very low in the drawing categories that included students (that is, TS and TSA).
- Only two of the 87 students indicated that they were both looking professional and happy. The two students were in the teacher only (T) category.

- Several participants drew and described themselves reading to or with their students. In the TA category, this accounted for 17% of participants, and in the TSA category it accounted for 20% of those responses.

Characteristics of effective teachers, Survey 1, item 2

List three attributes of effective teachers

Asked to list three attributes of effective teachers, the participants identified 57 different attributes. The three most prevalent of these identified teachers as *organised* (41%), *knowledgeable* (40%), and *engaging* (30%). Table 3 shows the prevalence of these themes in the four drawing categories where they were mentioned.

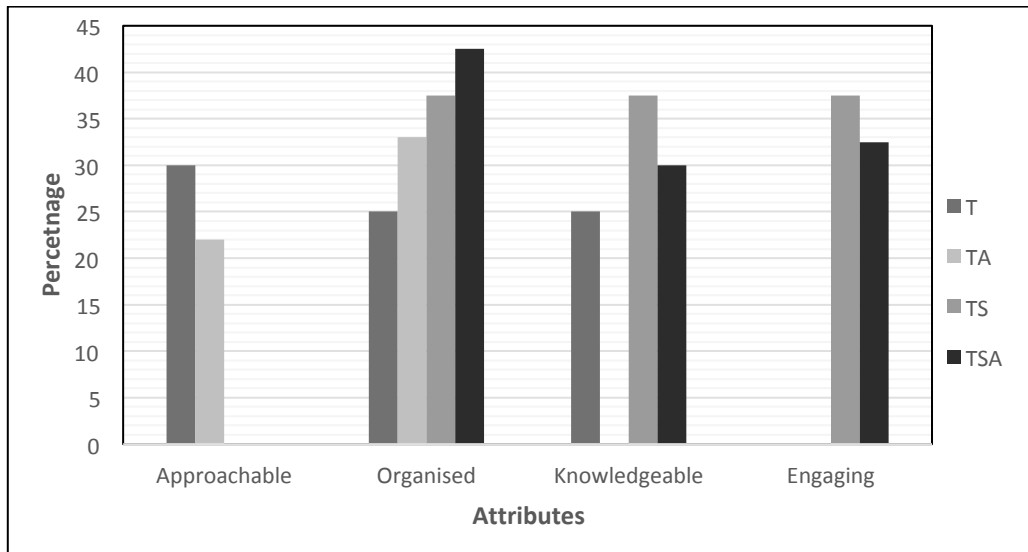


Figure 3: Attributes of effective teachers
(% occurrence in each drawing category; see Table 1 for categories)

Of interest, only the two categories of drawings with students (that is, TS and TSA) scored highly for “engaging” and that only the two categories without students (that is, T and TA) scored highly for “approachable”. The characteristic of being “organised” was highly rated in all of the categories.

Concerns: Survey 1, item 3

What are your three biggest concerns about being a teacher?

Whilst the participants expressed their concerns in many different ways, these were coded and categorised under the four key emergent themes: pedagogy; managing student behaviour; curriculum knowledge; and confidence. Figure 4 shows the proportion of each of these within each drawing category.

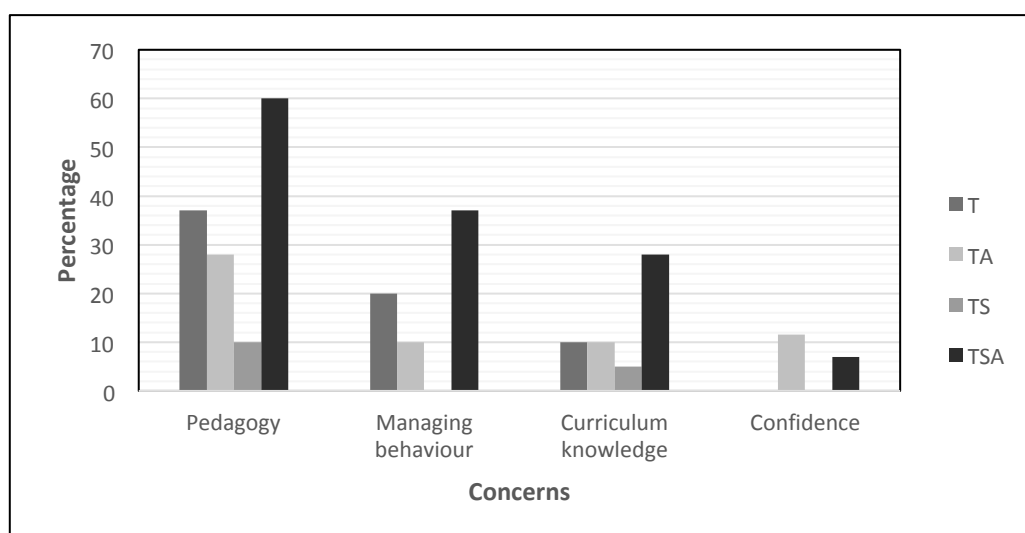


Figure 4: Most frequent concerns
(% occurrence in each drawing category; see Table 1 for categories)

Pedagogy was the greatest concern across the four drawing categories in which these themes were mentioned; *curriculum knowledge* was the third greatest. The TA and TS categories deviated from the second most frequent concern in rating *confidence* above *managing student behaviour*.

Only seven of the 87 participants reported concerns in each of the categories *pedagogy*, *managing student behaviour*, and *curriculum knowledge*. These comprised two in the T category, two in the TA category, none in the TS category, and three in the TSA category.

Three of the less prevalent concerns are of interest for the next phases of the study: for example, 11% of the cohort were concerned that they might be overwhelmed by the teaching role. The three concerns are listed below.

- Being overwhelmed by the role: “Cracking under pressure”
- Meeting expectations: “Pressure to be the perfect teacher”
- Accommodating governmental testing requirements: “Pressure for testing in lower primary years”

Graduate employment was a concern expressed by 5.5% of the participants, and one other participant was concerned about whether her first teaching role might reveal she did not like teaching as much as she had anticipated. Three other participants indicated their concerns about the impact of future policy.

- Bad policy that makes my job harder
- The government will implement something awful that I don’t agree with
- Bad policy or rules that make work difficult

Three participants were concerned about being sick, or “catching something”, with two of these naming “nits”; three others were concerned about what they were going to wear.

Possible future self: Survey 1, item 4

Where do you see yourself in 10 years' time and what will you be doing?

This future-oriented survey item was designed to determine the proportion of students who included teaching in their vision of a future self. Table 3 shows the spread of responses across the four drawing categories. The “higher duties” future was determined from responses that mentioned being a deputy principal or principal. Four students mentioned studying a higher degree: one TSA, one TA, and two T; every participant included teaching in their vision.

Table 3: Future self in 10 years' time (percentages)

Drawing category	Teaching/classroom			Higher duties	Not teaching
	General	Regional	Overseas		
T	76	5	19	0	0
TA	66.6	0	22.2	11	0
TS	50	37.5	12.5	0	0
TSA	64	10	18	5	0

Survey 2 was completed following the professional experience placement and after the mid-year university break. In preparation for this, a research assistant re-identified survey 1 responses. These were returned to students when they completed survey 2, enabling them to reflect on their earlier responses. Fifteen of the students were not enrolled in the Semester 2 companion unit due to part-time study, leave of absence, mid-year intake or failing a Semester 1 unit. In all, the paired data set comprised 63 participants.

Of interest are items 2 and 3 of the second survey. Item 2 asked students, *Has your thinking about being a teacher changed since your first placement?* The responses are presented at Table 4.

Table 4: Survey 2: Has your thinking about being a teacher changed since your first placement? (n=63)

Drawing category	Yes (%)		No (%)	
	+	-	+	-
T (teacher only)	47	0	41	0
TA (teacher and artefact/s)	53.3	0	26.6	0
TS (teacher and student/s)	50	0	33.3	0
TSA (teacher, student/s and artefact/s)	38	6	29	0

Some participants responded “yes” and followed this with a qualifying statement; examples of these, both positive or negative, are provided below.

Positive changes in thinking:

- Yes, my thinking has changed about being a teacher as I now realise how much I enjoy it
- Yes, it's a far more positive outlook on how I need to differentiate my lessons to suit all levels

A negative change in thinking:

- Yes, it has changed in a negative way. I still want to be a teacher but it has made me think if I still enjoy teaching as much as I did before my prac[ticum]

No changes in thinking:

- No, I still think that teaching is for me
- Not really — this prac[ticum] motivated me more to get through it all because it is exactly where I want to be

The results indicate that, for the majority of participants, their professional experience placement has affirmed their career trajectory at this stage of their degree.

Rather than responding with a *yes* or *no*, some students provided somewhat neutral yet reflective comments, as illustrated by the selection below. Seen in the examples below, the prevalent themes were student engagement, the value of experience, and the need to be responsive and flexible.

- I think the students need to trust you before they will believe or interact with you. You need to spend time bonding with students first before throwing a lesson on them.
- The impact you can have on a student and the impact they can have on you is far greater than I anticipated before completing my first prac[ticum].
- Learning that you need to “be there” for your students. Your students don't care how much you know until they know how much you care.
- Just that I need to spend as much time in a classroom as possible because nothing prepares you more than teaching. Also, how important reflection is.
- I learnt that there can be a range of abilities.
- Teachers aren't as dead set in lesson planning or content-based teaching as they need to adapt to the challenge the students and the day can throw at them.
- Every day was different. Very dynamic environment that makes every day unexpected and thus not boring.
- I now place a lot more emphasis on engagement and relevant learning.

The students' second placement (practicum) was scheduled for the end of Semester 2. Anticipating this, item 3 of the second survey asked them the question, *What do you think you need to work on in preparation for your second placement?* This was a purposeful prompt for them to reflect on what they had learned and to consider their learning needs. Figure 5 illustrates the concerns expressed by students at Time 1 (T1), prior to their practicum, together with the developmental priorities they identified post-placement at Time 2 (T2).

As seen at Figure 5, new themes for development included assessment practices and lesson planning, time management, general teaching skills, and meeting the needs of individual learners. Two themes are highlighted and linked at Figure 5, as they were present at both time 1 and time 2. *Confidence*, which was a concern for some students at time 1, was a new area for development among some of the TSA cohort. The other consistent theme was *managing behaviour*, sometimes expressed as classroom management. This was a concern for multiple students at time 1, and at time 2 its prevalence as a focus area for development suggests that it was a concern for even more students than previously.

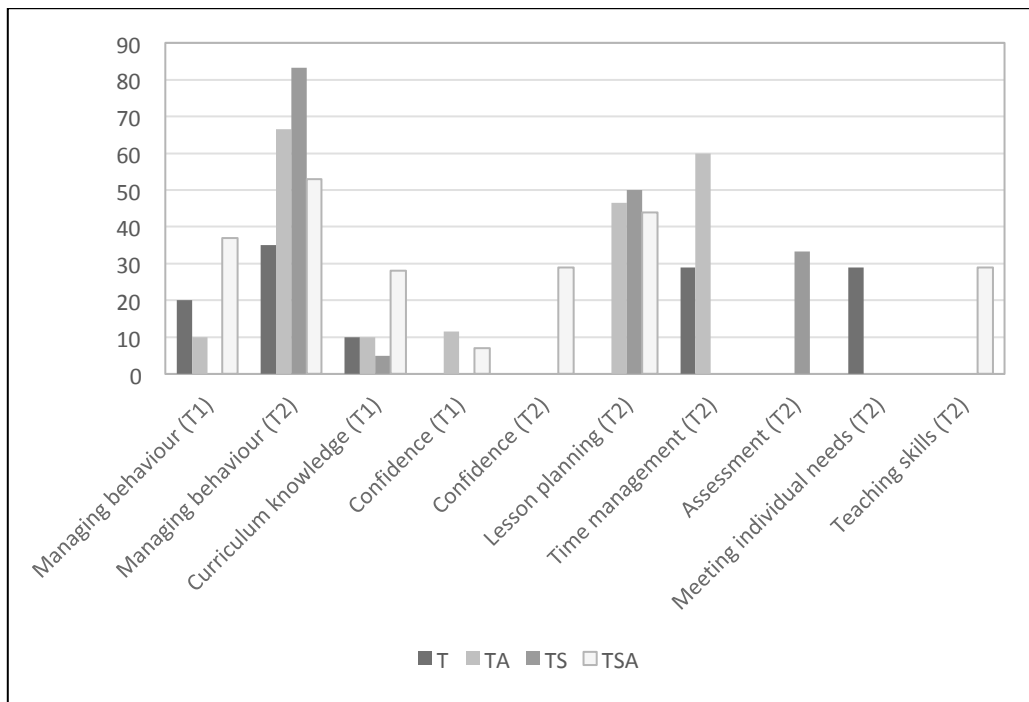


Figure 5: Responses from Time 1 (T1) pre-placement and Time 2 (T2) post-placement: Survey 2, item 3 (% of the cohort; see Table 1 for categories T, TA, TS, TSA).

Another way of looking at Time 1 and Time 2 responses was to ask whether initial concerns had been resolved, or whether these had been carried through to the developmental priorities expressed at Time 2. This led to an examination of individual cases by cross-tabulating the responses at Times 1 and 2. Table 6 shows the number of matches between the three most commonly expressed concerns (time 1) and developmental priorities (time 2).

The cross-tabulations suggest that there is little correlation between Times 1 and 2 at the individual level. It is possible that concerns were resolved or did not present themselves during the placement. Equally, new concerns may have surfaced and taken priority.

Table 6: Cross-tabulating concerns at time 1 (survey 1, item 3) with developmental priorities at time 2 (survey 2, item 3) (% of matches)

Drawing category	0 matches	1 match	2 matches	3 matches
T (teacher only)	88	12	0	0
TA (teacher and artefact/s)	53.4	26.6	20	0
TS (teacher and student/s)	50	50	0	0
TSA (teacher, student/s and artefact/s)	65	29	6	0

Discussion

Students' visualisation of teacher selves prior to their first professional placement

At Time 1 (survey 1), prior to their first practicum, the pre-service teachers drew themselves as teachers. Although it would be logical to assume that the student teachers' drawings depicted how they imagined themselves as teachers, the drawings might also express students' memories of their previous experiences of teachers and classrooms. This is indicative of the influence that the "apprenticeship of observation" has upon pre-service teachers' understanding of the role of teachers. (Lortie, as cited in Buchanan, 2015, p. 702). Asserting that pre-service teachers' memories of 'who they were' are linked to their vision of 'who they wish to be', Chang-Kredl and Kingsley (2014) studied the role of memory in pre-service teachers' expectations and identity formation. Rather than using drawings, Chang-Kredl and Kingsley's (2014) participants created text-based portraits of teaching. Their participants revealed that motivations to teach were fuelled by positive and negative experiences rather than those that were neutral; students with more positive experiences imposed more expectations on themselves than did their peers. Although there is every reason to believe that our students' drawings were similarly charged by their memories, they were specifically tasked to draw *themselves* as teachers rather than to describe teaching in general.

Fifty-five per cent of participants included both themselves and students in their drawings. This does not necessarily indicate a student-centred approach to teaching. Indeed, the position of the teacher in most classrooms indicated a teacher-directed approach with the teacher in a dominant position and placed either at the front of the classroom, in front of students and/or desks, or seated on a chair (elevated position) in front of students who were seated on the floor (submissive position). Again, interrogation of the drawings alone will not confirm whether the pre-service teachers intentionally positioned their teacher selves in dominant positions or whether this was subconscious and a reflection of their experiences as students. Similarly, that 44% of participants did not include any students in their drawings does not indicate a denial of student-centred teaching approaches.

What is of interest, though, is that 21st century pre-service teachers visualise themselves within a 19th century construct that indicates a stereotypical and traditional pedagogical approach. Moreover, the construct did not reflect the physical setting in which students were being taught at the university. The outdated view was reinforced by the notable

absence of digital technologies from the students' drawings, which privileged chalk boards, and desks which for the most part were situated in rows facing the board.

Pre-service teachers in all drawing categories — with or without students and/or artefacts — represented themselves with smiles. It could be surmised that pre-service teachers imagine themselves as being happy in their future roles as teachers and that their students are also happy. This aligns with Manuel and Hughes' (2006) pre-service teacher study, which found intrinsic career decision-making to be related to meaningful engagement with the subject and with personal fulfilment and meaning. Drawings with smiling faces were commonly accompanied by captions that incorporated phrases such as *being happy*, *having fun*, or *enjoying the work of a teacher*.

Returning to the perceived attributes of effective teachers, the four most frequently mentioned attributes (organised, knowledgeable, approachable, and engaging) could be further classified as *professional* or *personal* attributes; we suggest that these will assist in organising the dataset as it grows.

- Professional characteristics (capable, organised, knowledgeable, pedagogically engaging)
- Personal characteristics (approachable, resilient, flexible)

Other personal characteristics such as *patience*, *kindness* and *empathy* did not rate as highly. This could indicate that, even at this early stage of their professional development, these pre-service teachers had an intuitive (although not necessarily realistic – see Weber & Mitchell, 1995) notion of what it takes to be a successful teacher. Further, these personal (affective or social characteristics) in previous research (such as Collins, Selinger & Pratt, 2003; Ng, Nicolas & Williams, 2010) were rated more highly than the content knowledge dimension of what we have defined as professional characteristics. Without interviewing PSTs we can only surmise reasons for this; however, it is not unreasonable to note the influence of national standardised testing and government websites that make public these school data sets on PSTs' views of effective teachers.

Student teachers' concerns prior to and after placement

Prior to their first professional experience placement, the pre-service teachers most frequently reported concerns about *pedagogy*, *behaviour management* and *curriculum*. They also emphasised the management of behaviour and the classroom alongside knowing what to teach. These responses might have been anticipated as they might represent a fear of the unknown and highlight students' self-awareness that they may not be cognisant of factors yet to be revealed (Britzman, 2003); however, the responses differed from the students' perceptions of what makes an effective teacher. In their contemplation of their first formal and assessed teaching experience, the PSTs are faced with reconciling their inexperience with their beliefs about what it is to teach in a classroom, inevitably formed by their own years of experience as a student (Ng et al., 2010). We posit that the first professional experience placement is an *identity threshold* for pre-service teachers to cross,

and their self-efficacy as a “teacher” is a key factor in the success of assuming a mantle of *teacher* rather than *student*.

After their placement, the pre-service teachers identified that they needed to work further on behaviour management, time management, and lesson plans. This reflection may have been influenced by their individual placement experiences, including mentor feedback. Similar concerns were identified by Geng, Midford, Buckworth and Kersten (2017) and also by Southgate, Reynolds and Howley (2013), who questioned whether the traditional practicums at the core of initial teacher education are sufficient in and of themselves, without the inclusion of authentic experiences in classroom management, time management, or even planning and delivering lessons for their future classes. Beltman and her colleagues (2011) reinforced the vital role these play in the formation of teacher identity. In this sense, it is a positive outcome of the placement experience that pre-service teachers recognised aspects of their teacher development in need of further work. Returning to Southgate and colleagues’ (2013) question, we acknowledge the need to create those authentic experiences far earlier in our program. Further, we agree with Southgate et al. (2013, p. 13) that teacher educators “must simultaneously work on tactically resolving issues whilst also engaging in a more strategic, evidence-based dialogue on the purpose of professional experience, its models of delivery, and evidence of outcomes”.

The impact of a first professional placement on student teachers’ thinking about the future

Asked about the impact of the first professional placement on their visions of themselves as teachers, every student indicated that they could see themselves working as teachers 10 years into the future. We would have to conclude from this that the placement experience was positive overall, and for many students the professional placement affirmed their career choice. As Ballantyne, Kerchner and Aróstegui (2012, p. 13) concluded from their cross-country study, “Field experiences and opportunities to practice their teacher roles with ‘real’ students are central to enhance pre-service students’ abilities to confirm (or challenge) their evolving (and broadening) identities”, and we posit that the sooner this occurs in an initial teacher education course the better.

Bennett, Reid and Rowley (2017, p. 13) emphasised that “negotiating and understanding the workplace, its expectations and organisational structure (including relationships) can be complex, difficult and time consuming”. Whenever it is scheduled within an initial teacher education degree, the first professional experience placement is a crucial step in student teachers’ construction of professional identity (Beltman et al., 2015). Evolving over time and influenced by successive professional placements (Beijaard, Meijer & Verloop, 2004), the first practicum is likely to represent an intensive phase of professional identity development which may be variously disruptive, confrontational and uncomfortable. As Galman (2009) asserted, such identity work plays a catalytic role in the growth and maturity of pre-service teachers as students begin their transition from student communities in which they are experts to professional communities in which they are novices (Reid, Abrandt Dahlgren, Dahlgren & Petocz 2011).

Pre-service teachers in the early stages of their degree programs may identify considerable incongruence between their student experiences of teachers and teaching, the theories of good pedagogical practice, and the realities of their school-based placements. This brings to the fore the critical need for students to have intentional and scaffolded opportunities through which they can recount and critically reflect on their placements. As Billett asserted (2011, p. 139), such opportunities are “the means by which individuals exercise their agency in construing and constructing the knowledge afforded them”. As such, scaffolded critical reflection is essential if student teachers are to make meaning of their experiences and to identify themselves as teachers rather than students.

Limitations and recommendations for future research

This study was the first year in a three-year, longitudinal study with a cohort of pre-service teachers. The next data was collected from the student cohort prior to and after their third professional experience placement in Semester 2, 2017. Data analysis involved separating the drawings into four major categories and then interrogating the results within each category as well as across each individual case. The drawing categories might reveal different thinking within the pre-service teachers once the broader study amasses sufficient numbers and, therefore, sufficient statistical power. In the meantime, we do not make broad assumptions. Building on this first phase of research, individual semi-structured interviews will be used to capture additional or fine-grained information that could not be gained from the surveys alone. The involvement of successive first-practicum cohorts will build over time a dataset from which the visualisations of teacher selves can be compared with student teachers' development over the course of their degree programs.

Future research might seek to determine the impact of authentic learning experiences well in advance of students' school placements. Further, the inclusion of visual representations in the form of drawings might enable comparison of cohorts at multiple institutions. We also welcome research that is longitudinal both during higher education study and into the first three to five years of professional life. The inclusion of these first years of practice will hopefully enable us to see at what point/s students no longer visualise themselves as teachers ten years into the future and to eventually predict and lessen the risk of attrition. As educational contexts shift, influenced by policy, politics, and the impact of the infiltration of professional standards for teachers (e.g. AITSL, 2011) into pre-service teacher education assessment, teachers will need to be able to navigate the changing demands on their time and practice – essentially, responding to change with agility and the ability to imagine and generate their future teacher selves located at the intersection of “personal experience, professional context, and the external political environment” (Mockler, as cited in Buchanan, 2015).

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Appendix: Summary of 2016 survey for pre-service teachers

Identity survey 1

- 1) You are currently studying to be a primary school teacher. Please draw yourself as that teacher and describe what you have drawn. (10 cm square drawing space; lines for the caption or notes)
- 2) List 3 attributes of effective teachers. (a, b and c)
- 3) What are your 3 biggest concerns about being a teacher? (a, b and c)
- 4) Where do you see yourself in 10 years' time and what will you be doing? (Open response)

Identity survey 2

- 1) What was your biggest learning from your first professional placement? (Open response)
- 2) Has your thinking about being a teacher changed since your first placement? If so, how? (Open response)
- 3) What do you think you need to work on in preparation for your second placement? (a, b and c)
- 4) Was there anything that troubled you during your placement and/or did you encounter something that you found difficult to deal with? (Open response)

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