Teacher educators' strategies for using pre-service teacher-authored stories in teacher education.

Lucy Anders, Gillian Kidman, Stephen Keast

Faculty of Education, Monash University, 29 Ancora Imparo Way, Clayton, 3800, Victoria, Australia

Abstract

Cases have long been used in teacher education to provide examples of teaching to broaden the experience of pre-service teachers (PSTs). These cases are often written as exemplars by experienced teachers to pass on their wisdom, which can lead to a perceived gap of ability between the author and the pre-service readers. To combat this one could champion peer voice through the use of PST-authored stories. This study sought to investigate the ways that PST-authored stories may be used in teacher education, as it is not enough to simply prescribe a number of cases in a reading list and hope that PSTs will read them. This paper reports on the responses of two expert Science teacher educators who were part of a larger study that explored the uses of PST-authored stories. Interviews revealed key conversation points, with a half being common to both teacher educators. The responses from the teacher educators were classified into 'how' responses that gave strategies for 'how' the PST-authored stories could be used, and 'why' responses that outlined the reasoning of the teacher educators, with the 'why' responses being more frequent.

Keywords: Peer voice; science pre-service teachers; peer-authored cases; case-based learning

Corresponding author e-mail address: lucy.anders@monash.edu

Introduction

A pre-service teacher (PST) is often bombarded with other people's opinions of 'how to teach'. Such opinions usually come from practising teachers or lecturers and tutors, all of who usually have at least a few years of experience as a classroom teacher (Rovegno & Dolly, 2006). Rovegno and Dolly (2006) suggested that PSTs are rarely given agency in teacher education because the current paradigm is that an expert panel of teachers dictate their wisdom to PSTs. This is in contrast to the recent ACER review of teacher education in Australia, which identified that well-designed programs have "an inquiry approach that connects theory and practice, including regular use of case methods, analyses of teaching, and learning, and teacher research applying learning to real problems of practice and developing teachers as reflective practitioners" (Ingvarson et al., 2014, p. 39). Sharing peers' stories in the form of PST-authored stories can expand the amount of experience that PSTs are exposed to, which might assist the construction of their professional 'toolbox' and identity and help make stronger links between theory and practice.

One possible format for the sharing of these experiences is in an anthology-style publication. The sharing of stories about practice can provide PSTs with alternate perspectives on their classroom practices and challenge their lay theories (O'Flaherty & McGarr, 2014). Merseth and Lacey (1993) advocate the use of cases in teacher education as cases illustrate life in the classroom as it is, not as it should be, thereby departing conceptually from the notion of striving for best practice. However, producing a publication such as this is useless for wider teacher education if you cannot get other PSTs to read it. This is a particular challenge in tertiary education as research has shown that students are not likely to complete the allocated readings (James, Krause, & Jennings, 2010). It is vital therefore, to investigate what strategies could be used to incorporate PST-authored stories beyond simply prescribing them to a unit reading list.

In 1987, Lee Shulman proposed a new way of framing the professional knowledge of teachers. He argued that, in addition to knowledge of the content and of teaching strategies, expert teachers have Pedagogical Content Knowledge (PCK), that is, knowledge of how best to teach the content. He also went on to outline Pedagogical Reasoning (PR), which is the 'why' behind what teachers do in the classroom (Shulman, 1987). As the teachers of teachers, expert teacher educators often have both expansive PCK and sound PR when it comes to teacher education. It follows then, that if the aim of this present research was to interrogate the ways that PST-authored stories could be used and shared with other PSTs, then the best people to ask would be their teachers, the teacher educators.

As with all cases, the PST-authored stories will be ineffective if they are not presented in a way that invites PSTs to engage with them. One of the biggest issues underlying this study is the evidence that suggests that university students do not read for academic purposes as often as their lecturers and tutors believe they should. Research has found that many students at Western universities largely ignore reading for academic purpose. James, Krause and Jennings (2010) conducted a large survey to investigate the 'first year experience'. Within their findings about disengagement with learning, they discovered that the majority of the respondents reported that they 'frequently' and 'sometimes' came to class without doing the required readings. Stokes & Martin (2008) explored the effectiveness of reading lists at a British university via a questionnaire out to students. Eighteen per cent of first year students indicated that they did not look at the reading list at all, with 67% only reading 1-4 items from the list throughout the semester. The students in the study said that most of the time they would only read published books from the library because they believed that these would be the most reliable and effective. These findings suggest that it would not be enough in our case for teacher educators to simply add a selection of PST-authored stories to a unit's reading list and hope that the PSTs access them.

The use of cases is widely reported in the literature as being beneficial in teacher education. A few programs have set a task for the PSTs of writing their own case (Barksdale-Ladd, Draper, King, Oropallo, & Radencich, 2001; Le Fevre, 2011; Richards, Hemphill, & Wilson, 2015), but a study has not been found that specifically investigates the sharing of these stories among peers, or provides strategies for sharing them. By generating a list of strategies it enables teacher educators to more readily include PST-authored stories in their courses, given that they might not be familiar with ways to support and facilitate peer learning. In contemporary teacher education courses, there are many demands on the PSTs as they try to transition from a student identity towards a teacher identity. Peer voice is important as it can generate a sense of community and belonging between PSTs who are all moving through this identity shift together, but at varying paces. It provides a fresh and often realistic perspective of common issues faced during pre-service teaching, as opposed to expert-authored stories. The results from this study aim to provide teacher educators with a variety of strategies to trial in their classes in the unfamiliar territory of using PST authored stories with PSTs.

Graduate teachers have often cited their placement experiences as a PST to be the most influential part of their preparation for teaching (Wilson & Williams, 2001). However, in Australia, practicum has been identified consistently as a problem area in teacher education. The 2007 *National Inquiry into Teacher Education* found that despite

placement experiences being identified as largely influential and important, little had been done to address the problems of low morale in the profession, a lack of resources, the intensification of teachers' work and the ever-increasing number of teacher training institutions (Fawns, Misson, Moss, Stacey, & Ure, 2007). Le Cornu and Ewing (2008) promote a practicum model that acknowledges the impact it can have on professional development by reframing it as an opportunity to experience the 'real world of teaching'. They emphasise a reflective process once back at university and advocate agency for the PST through a peer 'co-mentoring' relationship. Practicum is an important part of a teacher education course as it enables PSTs to immerse themselves in the profession prior to being handed the full responsibility of a full-time teaching load, while also tackling aspects of practice that are hard to learn through theory such as classroom management (Lastrapes & Negishi, 2011).

After spending time in a school community, the PSTs often return to university with more questions than they had prior to practicum. As Sykes (2012) discovered by analysing the needs of her PSTs, many of the common concerns held by PSTs after their practicum experience can be addressed through the strong reflective practice involved in case writing. Common issues included classroom management, lack of subject knowledge and the relationship with the school mentor. Other less common concerns included the school setting (socio-economic context) and personal factors such as family commitments and financial concerns. PSTs were able to address these through their use of reflective practice and working collaboratively with others.

Although the structure and scaffolding instructions surrounding the writing of stories can vary, one common theme is found in most PST-authored stories: the re-telling of a critical incident. Critical incidents are moments in a person's life that presents themselves as an important or significant personal episode that has influenced their construction of identity in either a positive or negative way (Hoyrup, 2004). Critical incident analysis enables the PST to develop awareness and the skills of reflective practice, thereby "illuminating the way that student teachers come to know in the school and classroom" (Francis, 1997, p. 169). Harrison and Lee (2011) set their PSTs the task of writing one critical incident case per practicum experience and then following this up with a professional conversation with their practicum mentors about the incident. They then developed a framework to assist the PSTs in assessing the extent of reflection in the stories. They found that as the PSTs better learned to reflect through sustained exposure to practicum, they developed more sophisticated written case responses. They also found that the choice of critical incident influenced the capacity for reflection as well. This suggests that the less emotional choices that might make the author look like a better teacher can actually limit the amount they might benefit from the reflection required to write the case. Additionally, the PSTs noted that the act of writing the case

prompted further prolonged reflection and a shift in the way they approached their teaching. Some of their PSTs reported that by engaging in reflective practice they came to realise that there are no 'wrong' experiences and that all practice is valid and necessary (Harrison & Lee, 2011).

Methodology

This research aimed to interrogate the beliefs of teacher educators surrounding the potential sharing of PST-authored stories in teacher education courses. Initially four teacher educators were asked about their views regarding the sharing of the stories in an hour-long semi-structured interview, and then for their suggestions on how to do so. These suggestions can inform other teacher educators about the possible uses of PST-authored stories and help develop suggested strategies for integrating this practice of sharing PST-authored stories into teacher education courses. Teacher educators from three learning areas, Science, Geography and Outdoor Education, were invited to participate in the larger study, however this paper will present the suggested strategies of the two Science teachers only. The overall aim was to explore in what ways teacher educators could use PST-authored stories to expand the professional learning of other PSTs and enable peer voice in teacher education. Specifically, the research questions were firstly, what are the possible uses of PST-authored stories as suggested by science teacher educators? And secondly, what reasoning would science teacher educators give for using the PST-authored stories?

The responses were categorised as 'how' strategy responses or 'why' justification responses. Pattern coding was used to group together and identify patterns. Thematic coding was used to identify themes and issues raised by the participants.

Results

The interviews with the participants, while semi-structured, were reactionary conversations that were directed by what issues they raised. From the conversations with Jackie and Jodie, the two Science teacher educators, 14 key 'conversation points' emerged, with 7 of these common to both teacher educators. A conversation point is the term given to a key idea relating to PST learning. Both Jackie and Jodie mentioned peer voice, post placement use of stories, reflection, engagement, realities of the classroom, a lack of expert voice, and writing stories. Jodie also discussed science content in the stories, online analysis, relevancy of the stories, and the importance of dialogue when discussing the stories; while Jackie raised the ability of the stories to promote leadership, use of case analysis in assessment and comparing experiences of the PSTs to the stories. Of particular interest are peer voice, and post placement use of stories, as these points were discussed by all four teacher educators in the larger study, and by both Jackie and Jodie. Peer voice, and

post placement use of stories are expanded on below, while the remaining five common conversation points are summarised in Table 1.

Table 1. Common Conversation Points raised by Jackie and Jodie

Conversation Point	Definition/Description	Example
Reflection	Jackie and Jodie discussed how the stories can be used as prompts to stimulate the readers to reflect on their own values and beliefs about teaching.	*"In terms of a reflective task its good because you're getting them thinking about their own identity and hopefully discussing with someone else,"* Jodie
Engagement	The notion that using stories increases engagement with issues presented in the unit.	*"[It's] been really successful, I haven't made my course compulsory in attendance, and everyone has turned up,"* Jackie
Realities of the Classroom	Reading the stories with PSTs can provide a window into the day to day reality of school life.	Jodie argued that sharing practice in the tutorials was very similar to the dialogue you have in schools. *"At school it was great because you sit there and talk about it so if you have a bad day or a tricky lesson you can get a bit of perspective from another teacher."*
Lack of expert voice	Jackie and Jodie have both found that their PSTs don't want to read expert-authored texts; sometimes they're just too advanced for them to access.	*"Prior to that I had a recommended text which was* The Art of Teaching Science; *not very accessible for pre-service teachers. It's well written and it's good stuff, but it's really complex stuff. It's not about beginning to engage with the stuff. Its finite and it's not easily translatable,"* Jackie
Write stories	Jackie and Jodie would both use the stories to prompt their students to write their own stories.	*"[The students]* benefit not only from thinking about practice when analysing the stories, but also from a second round of reflection when having to generate their own case" Jackie

Peer Voice

Both of the Science teacher educators discussed peer voice, however they had different interpretations for what it meant. For Jodie, peer voice emerges during group work, where PSTs are working together and talking to each other and she discussed peer voice as being more relevant to the students than her own voice: [They]'re *not going to relate to me, I'm 20 years out of school. [They]'re not going to relate to something I've got to say about high school or education. It's better for them to draw on their* experiences because they're more likely to relate to it and engage with it. So [in tutorials] you want them to be in groups talking to each other and sharing experiences.

However Jackie sees peer voice emerging in two ways. The first is through formal peer feedback as an assessment component in her units: "so that's one interpretation of peer voice actually, is them providing feedback to each other". Several of her assessment tasks involve a peer feedback stage where they must either assess or comment on their peers'

work, after which the students are given the opportunity to refine their final submission in light of the feedback. The second emergence of peer voice, according to Jackie, is through being able to influence the content covered in their unit for the last four weeks of semester. Jackie learned very quickly that: *When they come back from their second teaching round in semester two they're over it. They've over uni and it's very hard to present to them. I thought, well if they're going to be like this, how can we best make the most of their time back at uni?*

Together with the PSTs, common issues from placement were identified and this shaped the course content for the rest of the semester. In this way Jackie felt she was enabling her PSTs to voice what they wanted and exercise agency.

Post Placement

With regards to the timing of the use of stories, Jackie and Jodie agreed that an ideal time would be after placement. Jodie's reason for this was that: *they've at least had two practicums, they've had that relationship with their mentor teacher, they've had relationship with their students, they've experienced it, and they're able to actually think differently and relate to the stories.* Jackie felt it was an ideal time for the PSTs to start comparing their lived experiences with those presented in the stories.

Also of interest is the conversation point Jackie raised about leadership as it indicates benefits beyond the particular course the PST is enrolled in being presented by the teacher educator. Leadership is not assessed, but a highly valued by product, like reflection, of an education degree. Indeed, as they move into their teaching careers, leadership qualities are scaffolded within the Australian Professional Standards for Teaching, that all current and future PSTs will be accountable to. An ability to demonstrate leadership will be a vital part of the PSTs' careers as teachers, so if it can be supported through the analysis and writing of their own stories, this is a unique benefit to using PST-authored stories in teacher education.

The Strategies and Justifications within the Conversation Points

The responses given by the teacher educators were classified into 'how' responses and 'why' responses. The 'how' responses gave ways in which stories could be used with their PSTs. These responses drew on the specific pedagogical content knowledge (PCK) that the participants have around the use of stories in teacher education. Extending on this, the 'why' responses justified their how responses and gave their pedagogical reasoning (PR) for a particular strategy or use. Table 2 presents the frequencies of how and why responses for the seven common conversation points. It reveals that participants focused more on explaining the reasoning and justification behind the use of stories

or a particular strategy, rather than simply giving the strategies. They had clear PR and were able to articulate it, which supports the notion that they are in fact expert teacher educators.

Table 2. Frequency of How and Why Responses for Prevalent Points

Conversation Point	How	Why
Peer Voice	2	5
Post Placement	4	2
Reflection	3	4
Lack of expert voice	2	5
Engagement	4	1
Realities of Classroom	1	4
Writing Stories	2	4
Total	18	25

As Table 2 indicates, the 'why' comments are clearly more prevalent to the 'how' comments overall as well as with respect to a number of conversation points. For example, peer voice, lack of expert voice, realities of classrooms and writing stories all were discussed with extensive pedagogical reasoning. When considering peer voice, where 5/7 comments related to justifications as to 'why' the teacher educators felt it was important or relevant in their course. Jodie offered a 'why' justification as she said, "it's better for them to draw on their experiences because they're more likely to relate to it and engage with it". Conversely, post placement and engagement showed minimal pedagogical reasoning. This could be because the justifications for why one would use the stories after placement, or why engagement is important in teacher education, are quite intrinsically obvious.

Opportunities for Use

A selection of the 'how' responses given by the teacher educators are presented in Table 3. These were categorised as opportunities to prompt conversation, opportunities to promote reflection, and opportunities to prompt a written task. Each of these strategies are ways in which teacher educators could use PST-authored stories.

Of interest is the importance of the discussion around the content of the case/s. Issues within the case, the content being taught and the structure of the actual case all appear important to the teacher educators. The teacher educators suggested that the stories could be selected for PSTs to highlight a particular aspect of their course content or theory. For example, as Jodie suggested, if they were studying Science as a Human Endeavour (a strand in the *Australian Curriculum: Science*), a case that "exemplifies issues around this topic" could be of use. Likewise, when promoting reflection through the use of the stories, the teacher educators would encourage their PSTs to consider what impact the reading of the case, or the vicarious experience they have witnessed, has on their understandings about themselves and their professional identity as a future teacher.

Table 3. Strategies for Use of PST-Authored Stories per Prompting Opportunity

Opportunity Categories	Strategy for 'how' to use the stories	Source of 'how' response
Opportunity to promote conversation	• Discuss the "issues" presented in the case or stories	Jodie
	• Case used in method class to promote discussion of PCK around a particular content theme, or to "pick out issues of the content"	Jodie
Opportunity to promote reflection	• PSTs reflect on the way the articles "impacted" their "emerging practice"	Jodie & Jackie
	• PSTs reflect on "what they saw as important in the articles"	Jodie
	• Case prompts PSTs to reflect on "what they would do if they had to 're-do' the lesson" themselves	Jodie
Opportunity to promote written responses	• PSTs write a 'letter to the author' where they "share a similar experience" they have had and discuss the article	Jackie
	• PSTs write a case analysis "linking theory to the practice" described in the articles	Jodie
	• PSTs write an online response stimulated by a case	Jodie

As a preparation for writing one's own story, the teacher educators emphasise the importance of comparing the case to one's own experiences. When writing their own case, the PST is encouraged to consider a literature base upon which to interpret their story. It is in this way that the teacher educators urge their PSTs to link to the theory and course content presented and incorporate this into their descriptions of the scenarios.

Conclusion

As a result of this study, the complex job that teacher educators embrace when training the teachers of tomorrow has been highlighted. Not only must they have sound pedagogical reasoning and up to date knowledge on contemporary issues of teaching, they must also act as model teachers for their PSTs. The two science educator interviews presented in this paper indicated seven common key conversation points that teacher educators discussed when considering PST-authored stories. These were post placement use, peer voice, reflection, engagement, realities of the classroom, lack of expert voice and writing stories.
This study set out to generate a list of how PST-authored stories can be used in science teacher education. It is not suggested to be a complete list, as the reasoning of only two teacher educators is presented, however it is a start for those teacher educators who are looking for ideas. The strategies were grouped into three categories, opportunities for conversation, for reflection and for writing. Other teacher educators may hopefully be able to generate some ideas to use in their classes with the aid of the strategies provided in this paper. The teacher educators focused heavily on the 'why' justifications for using the stories, indicating a strong sense of value for the pedagogical reasoning behind the enactment of the 'how' strategies. The teacher educators identified that one might use the stories as they promote reflection, enable the teacher educator to link to the realities of the classroom, and can generate engagement. Using PST-authored stories also draws in a peer perspective to teacher education, which the teacher educators suggested would be appreciated by their PSTs.

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