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Social Media Use in Initial Teacher Education: Lessons on Knowing Where Your Students Are

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Abstract: The use of social media in initial teacher education offers connection to a community of learners. As teacher educators we planned to use Twitter with pre-service teachers (PSTs). But at the end of the semester it was revealed that PSTs insisted on using a different platform; offering valuable perspectives and insights into the boundaries that are set by PSTs when moving from personal to professional use of social media. Through this paper we share our voices as initial teacher educators who valued the voices of PSTs in navigating the integration of Twitter into a semester of study. Revealed are insights into knowing where your students are when integrating social media to support the growth of a community.

Key words: initial teacher education, pre-service teachers, social media, Twitter, voice

Introduction

Educators have been exploring the place of social media for learning due to its capacity to support communication, networking, and access to resources (Lu & Yang, 2014; Hood, 2017; Prestridge, Tondeur & Ottenbreit-Leftwich, 2019; Tondeur, Forkosh-Baruch, Prestridge, Albion & Edirisinghe, 2016). Affordances are present that allow for real-time interaction, permitting opportunities for immediate and anytime, anywhere feedback, and learning via engagement with multiple voices. In initial teacher education (ITE) degrees, research is reporting the benefits that social media has for assisting pre-service teachers (PSTs) (for example Carpenter, 2015; Carpenter & Morrison, 2018; Hyndman & Harvey, 2019; Lemon, 2016; 2019; Paris, Boston & Morris, 2015; Nielsen, Moll, Farrell, McDaid & Hoban, 2013; Wright, 2010). Findings indicate social media use across various platforms can transform PSTs understandings and values regarding the content and processes used to create and co-curate content that supports both their development of pedagogical understandings and connections to the profession (Bull, Thompson, Searson, Garofalo, Park, Young & Lee, 2008; Bullock, 2012; Lemon, 2014a; 2014b; 2019; Nielsen et al., 2013; Mendez, Curry, Mwavita, Kennedy, Weinland & Bainbridge, 2009; Pilgrim & Bledsoe, 2011; Prestridge et al., 2019; Whyte, 2014; Wright, 2010). Free flowing communication opportunities exist (Munoz et al., 2014) and PSTs are provided with the opportunity to develop reflective practice and a sense of community (Lemon, 2016; 2019; Munoz, Pellegrini-Lafont & Cramer, 2014; Paris et al., 2015; Wright, 2010).

This paper shares our insights into a journey of introducing Twitter to PSTs, as one example of a social media platform. We share our voices as initial teacher educators alongside voices of PSTs to address the gap of acknowledging reflection in and on action (Schön, 1983) as a way to reveal the importance of both knowing where your students are

located and how comfortable they are in such spaces. This is a unique and often under shared element to (re)considering the value of social media to support the formation of a community, and professional use of social media. In this study, second year PSTs using Twitter illuminated over a semester, a strong need to be present in an active existing social media space; that is, Instagram. We had wanted to introduce them to Twitter, but there was low uptake. In creating a community of learners, and honouring of the student voice for our learning, we discovered the value PSTs place on social media for personal use, and in addition the PSTs decisions (or not) and boundaries they set in regard to space and time. We welcomed these insights of PSTs agency and voice. This paper aims to show how as initial teacher educators we were open to learn with the PSTs and take on their voice while also navigating our own use of social media professionally. This openness placed the PST voice at the centre of learning and provided opportunities to influence future pedagogical decisions of social media use for us as initial teacher educators. From a space of curiosity, the journey throughout a semester is shared and offers a way to support other teacher educators who wish to explore social media to support PST use in the transition from personal to professional usage while fostering a teacher identity and voice. We share this from a space of learning, that is, how one social media platform may not work for all in ITE degrees.

Social Media in Initial Teacher Education

Social media use in higher education for learning and teaching has begun to have an impact in ways that teachers and students engage with one another. The opportunity to research, curate, share, generate content, reflect, collaborate, network and communicate offers much potential (Chawinga, 2017; Lemon, 2016; 2019; Poore, 2012; Wertalik & Wright, 2017). As a flexible, easy to use and powerful tool for learning and teaching (Poore, 2012), social media use in higher education illuminates a sense of belonging through engagement (Yan, 2011) via supported collaboration, brainstorming, problem solving and creating within the content of moment-to-moment experiences (Lu & Yang, 2014; Hood, 2017; Prestridge et al., 2019; Tondeur et al., 2016).

In relation to ITE degrees, social media use highlights how connections made can assist PSTs to transform their connections to the profession (Bull et al., 2008; Carpenter, 2015; Carpenter & Morrison, 2018; Harvey & Hyndman, 2018; Hyndman & Harvey, 2019; Kelly & Antonio, 2016; Lemon, 2016; Paris, Boston & Morris, 2015; Nielsen, Moll, Farrell, McDaid & Hoban, 2013; Wright, 2010). Connection and networking offered by social media in ITE contexts can support PSTs development of linking to their peers (Carpenter, 2015; Carpenter & Morrison, 2018; Duncan-Howell, 2008; Lemon, 2016; Hyndman & Harvey, 2019) while honing reflective practice that illuminates the individual value of skill development associated to the act of being a teacher (Wright, 2010). Use also supports the shift of feeling isolated while in educational settings during the professional experience component of PSTs studies with opportunity for access to conversation with peers, lecturers and the profession and global resources to support their confidence to articulate professional growth (Bull et al., 2008; Carpenter, 2015; Carpenter & Morrison, 2018; Lemon, 2016; Lemon, Molloy & Hocking, 2015).

In integrating social media into ITE, it has however, been reported that it is not uncommon for PSTs to not be aware of personal to professional transfer of use (Lemon, 2016; Nielsen et al., 2013; Mendez et al., 2009), with authentic connections required (Hyndman & Harvey, 2019; Lemon, 2019). This provides opportunity to support PSTs capacity to consider how platforms that exist beyond the university learning management systems can support a crucial element in authentic adaption for both professional

development, and to supporting teaching of ITE content (Bull et al., 2008; Lemon et al., 2015; Hyndman & Harvey, 2019).

We view social media as a digital space that offers capacity to create visual narratives, that is, text alongside visual (photographs, video or website), to extend the interrelationships among the cognitive, behavioral, and affective dimensions of communication involved in being and becoming a teacher (Bower et al., 2011; English & Duncan-Howell, 2008; Gronn, Romeo, & Sheely, 2013; Lemon, 2019; Wright, 2010). These social media visual narratives support both documentation and reflection – important aspects in the act of teaching and professional development. Both reflection and documentation are valued also in ITE degrees as a way to bridge the perceived gap between theory and practice. Reflective practice via social media use highlights the opportunities to observe and interact in authentic real-life classrooms and current educational debates (Bencze et al., 2003; Bullock, 2012; Lemon, 2014a, 2014b; Hyndman & Harvey, 2019; Newhouse et al., 2007). This use of social media can support open dialogue, and reflective and metacognitive thinking in association to professional development. As a result, posts on social media platforms provide digital access points to information and discussions, thus providing PSTs with an opportunity to engage in sustained self-directed learning experiences using digital technologies.

Context of the Study

The aim of this study is to explore the place of social media in professional experience subjects located within ITE at one Australian university. The focus is on student voice while finding a platform that could best be utilised across all degrees offered within a department of education (Figure 1). This is a three-year study and we report on the first pilot focusing on the use of Twitter. For this pilot, we viewed Twitter as a platform for use within ITE degrees as a way to support the formation of a community across multiple cohorts and to access resources from those already in the profession while acknowledging this is a commonly accessed social media platform by teachers in the profession (Carpenter, 2015; Carpenter & Morrison, 2018; Hyndman & Harvey, 2019; Lemon, 2016; Lemon et al., 2015). The formation of a community and ongoing reflective practice is seen as critical to extend knowledge and develop reflective practice skills.

This study focuses on the student voice, that is, the PST's perception of using social media in their initial teacher education studies. We acknowledge there is limited or no support in place to understand the constantly changing platforms, privacy and security requirements, as well as support required for different levels of confidence of PSTs as they develop their professional digital identity while in the university context. Of particular note, is the limited knowledge and understanding of the student experience when social media is used in the higher education learning context. In this study, the ITE context is investigated to explore the project aim to address this current limitation and seeks to understand the PST voice to inform barriers, strengths and pedagogical needs by ITE educators. The pilot identified for us the importance of our own reflective practice, and the need to acknowledge this as part of the journey in working with PSTs. This element is reported in this paper.

Participants

The participants in this pilot were PSTs (N=37) enrolled in two workshops; one that was delivered to undergraduates, and the second that had a combination of undergraduate and postgraduate students. Both subjects were taught by the authors of this paper. In both

workshops, PSTs were learning about the place of practical and theoretical development in becoming a teacher, connected to undertaking days of professional experience.

Twitter was introduced as an online platform to support connection inside and outside of face-to-face class time. It was viewed as a way to produce evidence to support meeting the Australian Institute for Teaching and School Leadership (AITSL) graduate teaching standards. In this way we saw the connection to the profession, access to resources and policy, and reflective practice enacted via content shared and conversation as a way to evidence professional growth. This use of Twitter could be used to support the portfolio assessment tasks that requires PSTs to provide evidence alongside a narrative addressing specified AITSL standard focus areas. The use of Twitter was mapped across weekly content themes. In week one, we introduced how we would be working with the platform. In week two, we focused on the platform and showcased its capabilities alongside how to create a digital profile, ethics, safety, and technical support that scaffolded the shift between personal use of social media and one that is more professional. Weekly class use was encouraged and aligned to specific content. We unpacked hashtags and features such as, how to tweet and retweet. We created a project hashtag. PSTs were encouraged to use Twitter outside of class time in connection to their other subjects being studied and their inquiries into becoming a teacher.

Pre-data was collected from 29 PSTs (78% return rate) in week two and post from 12 (32% return rate) at the end of the semester in week 12. The low post data were noted as attendance to class is not compulsory. Some PSTs were also still completing their professional experience days and viewed non-attendance to university class valid as they were at their site undertaking this part of the subject.

Data collection

Qualitative data was collected over multiple points of time (Table 1) upon university ethics approval. The protocols of data collection involved all PSTs to complete the reflections as a part of class learning activities, however, self-nomination was offered to have the reflections collected to form data for this research as per ethics approval. The teacher educators maintained reflective journals throughout the 12 week teaching semester. Observation was carried out by the teacher educators of student commentary (for example asking questions or troubleshooting) as well as general observations of activity on Twitter, but not of specific content or patterns of participation to avoid the PSTs feeling they were under surveillance.
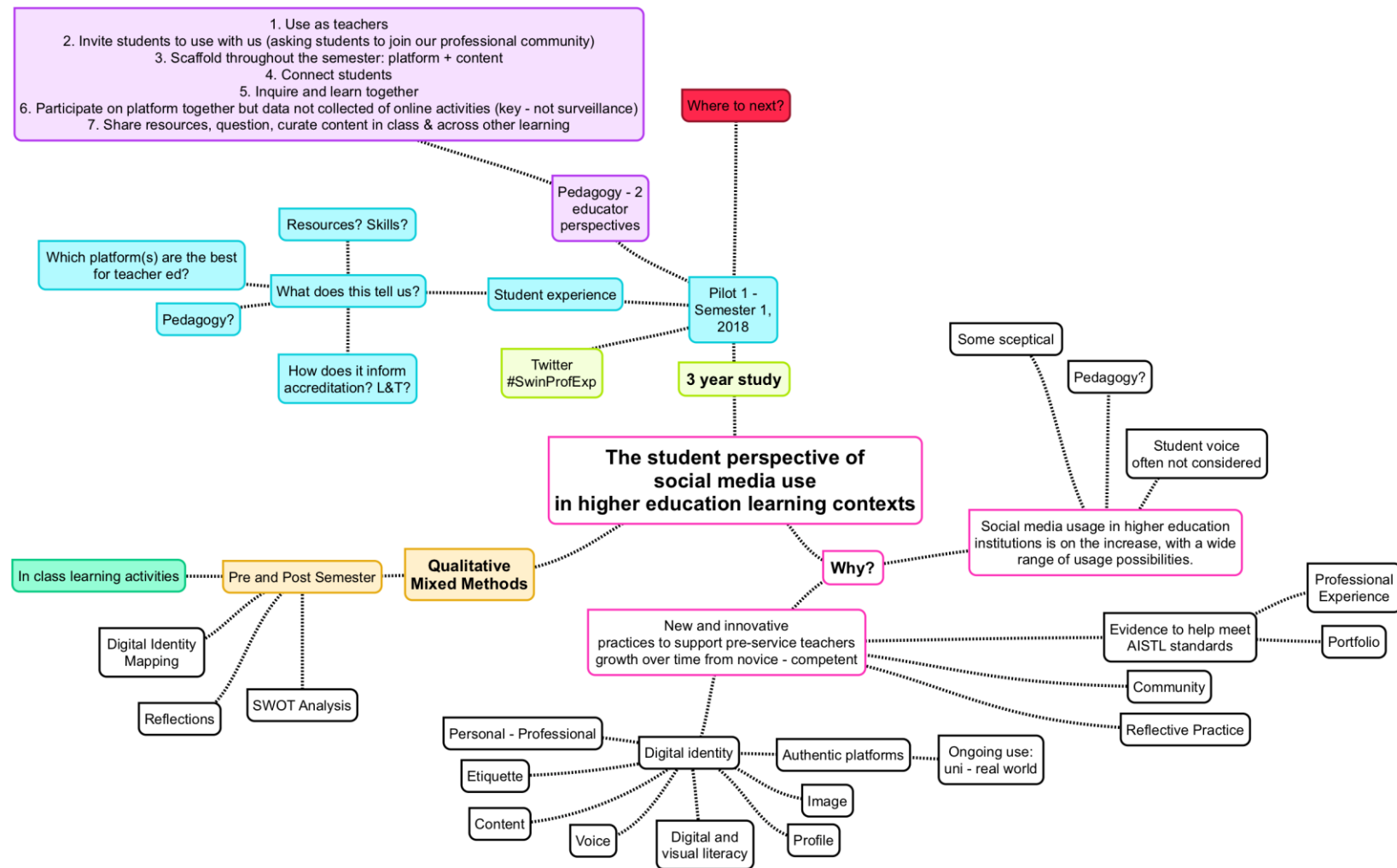
Figure 1. Pedagogical Model Design of 3 Year Project

	Pre	During	Post
Teacher Educator (N=2)	Written reflection	Observations noted in written reflection form of PST engagement with Twitter during class and of questions that emerged (Week 1 – 12 in class)	Written reflection (Week after week 12)
PST (N=37)	Written reflection (Week 2 in class*)		Written reflection SWOT analysis Focus group (Week 12 in class)

* NB: Data was collected in week 2 due to student stress levels associated to the subject being studied, specifically in relation to being in primary schools for the first time for professional experience. This was not anticipated, and a decision was made to resolve these feelings for PSTs in the first week and relocate the introduction of specifics of working with Twitter to week 2.

Table 1. Data Collection

The teacher educator reflections were maintained as a journal independent of each other. These were shared at the conclusion of the 12-week teaching semester. The PSTs reflections were collected pre (week 2), and post (week 12), and were an ongoing component of classroom activities. PSTs pre reflections included questions such as:
- Have you used social media in your university experiences?
- What are you excited about and concerned about in using social media in the learning context at university?

Post reflective questions for the PSTs included questions such as:
- A strengths, weaknesses, observation and threat (SWOT) mapping of experiences using social media for learning at university.
- Can you share a specific example of how you have used the platform to support your learning?

The focus group questions asked after the written reflections were completed in week 12, and included questions such as:
- How do you perceive social media usage in learning and teaching?
- Any challenges, barriers, or assumptions?

Analysis

This project draws on a qualitative research methodology that consists of "interpretative material practices that make the world visible" (Denzin & Lincoln, 2013, p. 7) in order to explore the strengths and challenges experienced by PSTs use of Twitter. In this project we make visible the experiences of PSTs as they learn the complexities of and negotiate the use of social media. Key themes were generated based on data and supported by the literature on social media use in higher education and ITE. Triangulation between teacher educator reflections, PSTs reflections and observations occurred with cross checking of data as a part of the analysis process.

Limitations

This paper presents a small scale study, however, the richness of sharing the teacher educator voice offers insights to those wishing to gain knowledge on possibilities in how to integrate social media into ITE. No data was collected on the content shared or usage in terms

of quantitative patterns, rather PST use in this study focuses on the voice of PSTs based on self-identified benefits and/or weaknesses. This is one interpretation.

The Place of Social Media

We set about integrating social media into our learning and teaching with PSTs during a semester. Twitter was engaged with as a way to connect, extend the notion of a community, that is, within a class, across classes, and across the profession of teaching. We saw the integration of Twitter as a way to demonstrate how social media is a technology that can support identity formation of being a PST to professional (graduate teacher) in a supportive environment where trouble shooting and asking questions are an invited part of the experience, particularly when the PSTs were located in the placement setting for four weeks without university class contact. As a part of the pedagogical design, we integrated Twitter into each week of the semester, making specific links to content with guiding questions and examples of content that could be shared. In the planning of the design, we were building from our own use professionally, the benefits we have experienced, and evidence and lived experiences of the platform use by teachers globally (Carpenter & Krutka 2014). Our pedagogical model centred on our use and the invitation to PSTs to join us. Invitation was a conscious action, one where we were not telling but encouraging use alongside us, whereby we could model troubleshoot and scaffold the content of the subject, thus, enacting teacher presence (Lemon, 2019; Shea, Li & Pickett, 2006). The model we implemented (see Figure 1) highlights that we approached the use of Twitter from a perspective that we were users of social media professionally prior to integration with the PSTs. Through this action we aimed to authentically support PSTs in their use as well as contribute to online discussions and sharing of resources as a way of professional contribution to reflective practice (Hyndman & Harvey, 2019).

As part of the research, we embedded student voice alongside the use of Twitter. This was to embrace the place of reflective practice for the PSTs but also to inform our reflective practice as teacher educators. Reflection on and in action were imperative. We were learning alongside the PSTs in designing the research and the pedagogical model for wider use across the ITE suite of courses. We were also identifying the need to include student voice in the use of social media, an often non reported aspect of social media use in higher education and in ITE (Lemon, 2016). In the next section of the paper we share our reflections juxtaposed to the PSTs throughout three critical points during the semester. This is followed by a discussion of implications and recommendations for future ITE educators use of social media.

We Come from Different User Profiles

By integrating Twitter into our teaching, we acknowledge our different experiences. As initial teacher educators we come from different user classifications of social media. One of us is an elegant lurker (White, 2015) while the other, a regular participant (see Figure 2). The later framing builds off the work of Rennie and Morrison (2013) who discuss

So, I live for social media to support learning, I'm a huge advocate, and take every chance to introduce my students in higher education to the opportunity of connections, resources, and curating content about their learning and professional experiences. I'm a firm believer in inviting students to join when at university to gain confidence and build their networks…networking beyond a classroom, cohort or degree. And I'm so excited to be working with Siobhan as well on this endeavour. Siobhan has a profile and building her presence and she's been so open to going on this journey with me. She is an elegant lurker (checking it all out, building up confidence and dipping her toe in) and I'm an elegant participant (I live tweet as a part of note taking, to network, collaborate, often make new friends online and then meet face to face for a research collaboration, write about my use professionally, integrate into learning and teaching, and use it as a source for connecting to close colleagues who live outside my physical backyard. I'm across multiple platforms, link them together, and have been building a profile since 2011 on Twitter after setting it up just to check it out!). I'm so excited to see what happens with Siobhan and her teaching, how we can link across the cohorts, how she finds the integration with her students, what the students think, and how she grows as well. I'm anticipating the PST use and can't wait for the 'ah ha' moment when connections begin to be made.

Reflection by Narelle

The term 'elegant lurker' (White, 2015) labels me within in the world of social media. That is, I am connected but not invested as creator, tweeter or poster. I am more of a collector where I swipe, scroll, like and save; repeat daily, sometimes hourly elegantly lurking like a Dr Seuss character 'thinking, thunking but do not say something'. So now, here I am supporting pre-service teachers with using Twitter. The aim, to be collaborative through social media @thereadingWELL and #swinprofexp. It will be great I say. It will connect you! It will allow you to share your insights and successes whilst on placement. It will provide you with a supportive network. All things I agree and share pedagogically but still elegantly I lurk.

Reflection by Siobhan

Figure 2. Reflections Pre-semester

engagement with social media in terms of level of engagement as regular, enthusiastic participant or lurker and how this is appropriate in time in relation to one's own particular use or learning (p. 35). We frame this around a celebration of our diversity and what we bring to integrating social media into our teaching with PSTs. We see this use as a way to extend our own practice, but also to model to PSTs that you can build confidence and professional use and identity. What comes with this is a clarification and growth in use, knowledge of what is possible and also extension of how and why social media can take a place in professional development illuminating the power of connections, access to resources, posing questions and curating content that contributes to professional dialogues.

The Student Reflections Reveal Spaces of Familiarity

Patterns emerged in the PST's current personal social media participation in their pre-reflections at the end of week 2. Although they were open to learning about Twitter in class, the data of current practices revealed that most of the PSTs were users of Facebook (90%), Instagram (79%) and Snapchat (62%). This we celebrated, because we were excited about sharing how Twitter could be an additional resource. We had anticipated Twitter would be unfamiliar but were ready to extend skills by building on their familiarity with how social media operates. In this approach, we acknowledged social media common language and

practices associated to networked publics, including profile, friends listed, public commenting tools, and stream based updates (boyd, 2010). The pre-data supported our beliefs and past research (Lemon, 2016; 2019; Nielsen et al., 2013) that Twitter is an under-utilised platform for PSTs. Illuminating that upon introduction, PSTs are exposed to resources, a community, and discipline practices while linking to current teachers nationally and globally who utilise such spaces for professional development. We were aware of teachers using Twitter for connections individually and via classroom accounts, plus the professional bodies they support (Lemon et al., 2015). In this way, we were bridging disconnections between modality available and learning opportunities (Munoz et al., 2014), while opening up possibilities for how social media can be utilised for professional development. Thus, we were supporting the transformation between personal and professional use and opening up of dialogue and reflective thinking (Bencze et al., 2003; Lemon, 2014a; 2014b; 2019; Newhouse et al., 2007).

We inquired into the PST's previous experiences with social media in learning within higher education to glean an understanding of past uses and opportunities. The data revealed that no PST had been exposed to opportunities to use social media as a part of formal learning in ITE classes. What was revealed, however, was that PSTs had utilised social media platforms that they engaged with personally to assist in their learning. For example, Facebook messenger for group assignment negotiations, supporting findings of Wodzicki et al. (2012) that social media use by students is often as way to assist in completion of an exchange of study-related knowledge.

What Are You Excited About?

The PSTs shared their curiosities, highlighting interest and willingness to participate, seeing the bigger picture and noting the offerings that social media promised. Their wonderings of Twitter use included excitement about links to professional practice and the ability to remain connected, as one PST shared: "I am excited to use a different form of social media and seeing how effective it will be with my study". Whilst another reflected: "[I am] excited to see how it works on a professional level. [I] think it will be a great tool to share". PSTs could see that the brief would support their practice whilst on placement, including: "being able to make new connections, gaining new information helping me as a pre-service teacher" and "to see different perspectives of learning and professional content". PSTs were also aware of the need for developing their teacher voice and forging of professional identity with reflections such as: "I hope it can support students (PSTs) on placement and allow them to share professional experiences with each other" and "using social media is a nice way for more introverted people in class to get involved and voice opinions". This was all very promising and offered impetus to forge ahead with the use of Twitter.

Concerns that Emerged

As we progressed with the use of Twitter throughout the semester there was uncertainly, however, and this offered some insight to the reluctance of Twitter as a platform of our choice. The PSTs shared: "I'm not really sure how I would use it in a learning context" and "I have no experience with Twitter and I'm not great with technology so I'm nervous about integrating it into my education". Others noted: "my concern is creating an account that I don't use or update". Concerns articulated by some of the PSTs were beginning to reveal patterns of the *why* in association to selection of a platform. This reinforced pedagogical

decisions on our part for designing learning activities that centered around what the platform offered, how we could show how teachers in the field were using it, and the personal gain we had experienced as teacher educators.

Reflecting more deeply the PSTs also wondered about their own issues in relation to their students and themselves. The consideration of school use and social media policies were realistic as the concept was covered in depth within the subject content and how to navigate this within a school as a PST. Then there was the need to make the social media connection useful and link to expectations of the subject assessment, raising the place of Twitter being meaningful in use rather than "being another distraction". Reflections included: "I'm excited to develop a folio of professional work, to help my development. I am concerned I won't use it to its full capacity and the work on Twitter will contribute to a folio, rather than being active on Twitter" and "[I'm] concerned about the social platform distracting me and taking up my time. Learning about different icons".

We were conscious of the revealing patterns to model our confidence in the platform via teacher presence, digital safety, the how to, and trouble shooting. There was excitement around the use of Twitter, and especially around its newness and unfamiliarity. Openness and hope existed about trialling this form of social media. There was trepidation as well, especially around utilising the platform to its full benefit and finding time to do so. We were aware that the PSTs' personal use of Snapchat, Instagram and Facebook would emerge in regard to familiarity and shifts of personal to professional use and what could be possible as well as the differences in how these platforms work. Possibilities still existed for us in regard to the benefits of Twitter. As we considered the social media spaces the PSTs personally engaged with and the newness of Twitter, we were mindful of the literature, and that, indeed, we were engaging in a space of unfamiliarity while also extending the use of informal learning spaces (Lemon, 2019; Prestridge, 2019; Prestridge et al., 2019). We introduced Twitter as a way to extend information gathering and encouraged connections and reflective practice. This would be new. An exciting but an unknown field we were planning to step into however, we were confident in stepping up and trialling Twitter as a way to extend notions of connection and knowledge making for PSTs.

Observations Mid-way

Figure 3. Observations Mid-way

We, as teacher educators, noted we were "having a great time" (Figure 3), and were active in the space modelling teacher and cognitive presence in sharing resources, retweeting content from classroom teachers with connections to theory we had unpacked in class. We were active in posing questions for critical moments, for example, in connection to weekly content and during the 21 days of placement. In their study of Twitter use with PSTs, Mouoz et al. (2014) reported low uptake in posting. They noted that they needed to intervene to encourage posts. We also intervened by scaffolding subject content by modelling what this could look like communicated via Twitter. We provided examples and posed questions to spark thinking and support engagement. We actively used alongside and independently with interventions of targeted tweets directed to PSTs one-on-one. Nonetheless, the uptake was limited, even with a posed weekly prompt embedded in the subject content delivered face-to-face and with time provided that guided discussion and positioning.
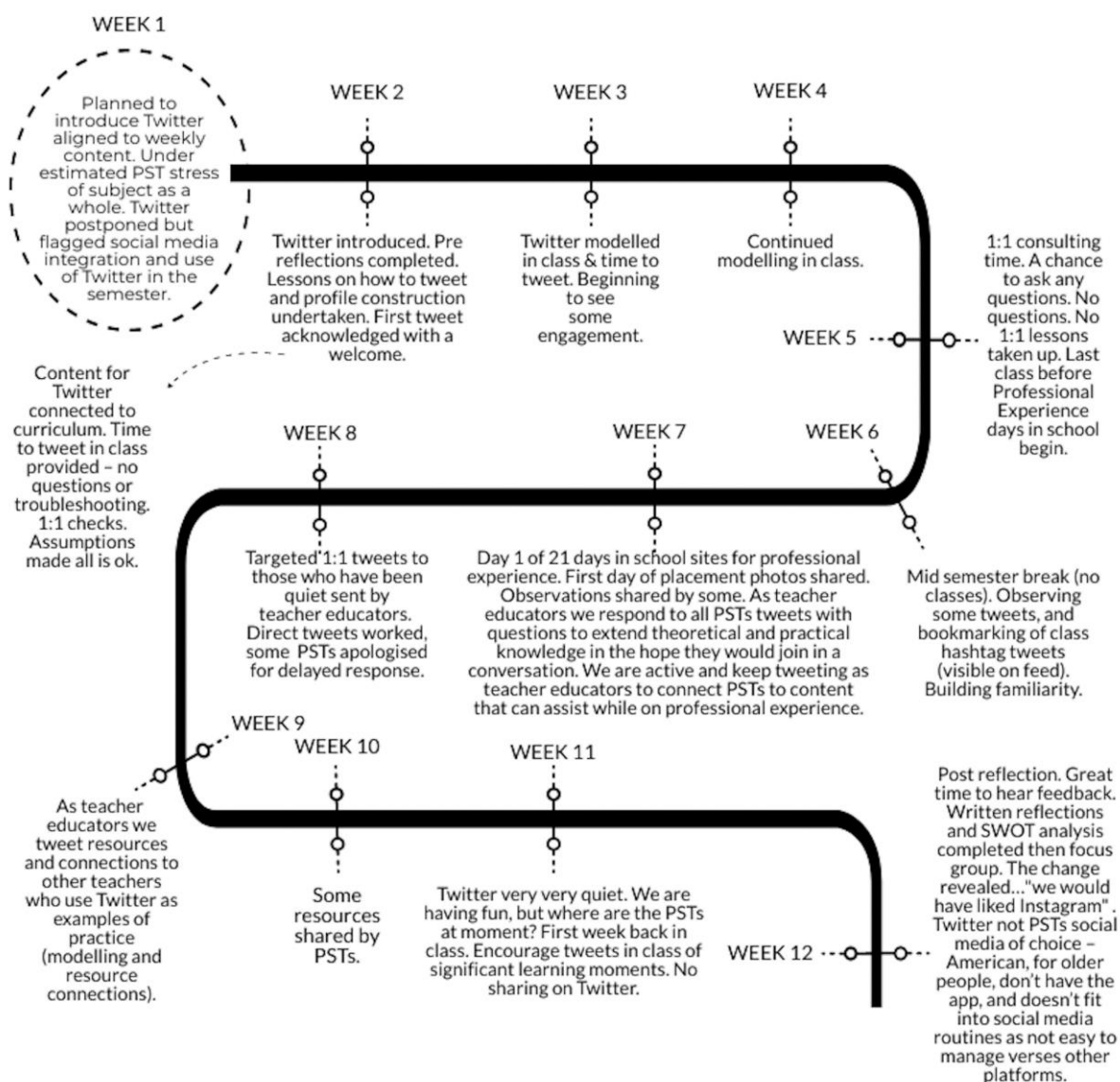

Figure 4. Critical Observations and Pedagogical Decisions

It was our hope that the PSTs would be engaged, but we had limited uptake (see Figure 4). Some PSTs responded immediately, but others did not respond for weeks. Others marked a tweet as a favourite and this came up in our feed. We were aware of elegant lurking (White, 2015), but we were yet to see engagement with content shared, retweeting, posing of

questions or sharing of resources. We did have engagement with apologies in delay in responding with one PST noting they "had not yet downloaded the app to their phone". But essentially midway through the semester we were seeing no to low uptake of the use of Twitter. Although elegant lurking signs were present (practice on Twitter and through conversations face-to-face or via email) we were beginning to wonder if this a case of elegant lurking at its best or non-engagement? Maybe Twitter was not the best form of social media for this cohort.

Learning from Limited Uptake

At the conclusion of the semester, we collected written reflections and then engaged in a focus group to unpack some of the key areas of relevance for the PSTs in the use of Twitter. Our noticing (Mason, 2002) could be perceived as a failed project, but we applied a growth mindset perspective (Dweck, 2007) that offered future opportunities, as shared in Figure 5.
 r

During each face to face workshop our PSTs are invited to post insights on a topic some are also orienting Twitter for the first time …. A few do – which set up for some leading conversations and areas for discussion.

So, I take the plunge and launch @thereadingWELL with a clear focus in mind – wanting our pre-service teachers to be connected and receive support during their placement experience. First, I post well wishes, then ideas for curriculum and resources, ways to balance the workload with mindfulness and self-care, then asking questions, I get creative with attaching gifs and links. I also celebrate each week as the placement time moves through the four weeks. Tapping into those who respond by commenting, supporting, caring, nurturing. Working behind the scenes through linking announcements on the online unit – asking them to join the twitter feed…. (somebody stops me…). It became fun, the flurry of ideas rolls on, likes and retweets flowed into the discussion….

But in all of this where were the other PSTs who didn't…. There are few but not nearly the majority – Did I miss the boat – Did they miss the point? …. Was it me? Oh no …. Do I retreat and once again elegantly lurk in the shadows …? Or was this the reason in the first place – could I have taken more of a lead? – would/could it be different had I taken the plunge earlier? ….

Reflection by Siobhan

Such a great open discussion today with class about their use of Twitter. Being an elegant lurker featured for them…they check it out, put profile together but decided that the effort in learning it wasn't of value to them. Unpacking this further we talked about mindful use of social media and to these PSTs framing their use this way seemed to lighten the load of disappointing me that they hadn't really engaged (or that's what they thought I would think) … actually I was fascinated with the concept of deciding not to use and I wanted to know more. So, the opportunity to chat openly and learn with each other was very much what I was so grateful for…plus I wanted to know more about this. I have a theory, but I wanted to see if it was true.

Reflection by Narelle

Figure 5. End of Semester Reflections

We were very much aware that Twitter had not been the preferred social media platform for the PSTs in this pilot. This was conveyed through our observations of their lack

of participation on Twitter but primarily through the lack of questions to extend knowledge, trouble shoot or make connections with content that may have been engaged in. This was unusual, because research in this field had indicated that classroom conversation, peer teaching, and reflective practice were underpinning aspects displayed by PSTs when engaging with Twitter in their ITE classes (English & Duncan-Howell, 2008; Carpenter, 2015; Carpenter & Morrison, 2018; Hyndman & Harvey, 2019; Lemon, 2016; 2019; Lemon et al., 2015; Mouoz et al., 2014; Nielsen et al., 2013; Wright, 2010). Our reflections noted similarities in that we embraced the opportunity that social media can provide professionally for access to resources and networking with the PSTs, but they did not take this approach it with us. In the next section of the paper, we consider the PSTs' perceived strengths and weaknesses of the use Twitter, and their implications.

We Did Think There Were Strengths, But…

PSTs' reflections on the strengths aligned with much of the research on Twitter in higher education in regard to access to resources, communication and connection (Bull et al., 2008; Carpenter, 2015; Carpenter & Morrison, 2018; Harvey & Hyndman, 2018; Hyndman & Harvey, 2019; Kelly & Antonio, 2016; Lemon, 2016; 2019; Paris et al., 2015; Nielsen, Moll, Farrell, McDaid, & Hoban, 2013; Wright, 2010). Specifically, the PSTs noted that Twitter use supported disciplinary connections relevant to becoming a teacher: "great blogs and attachments from pages and [I] followed people that are teachers [so I was] connecting to professionals" and "makes us reflect on the activities we're doing. [It helped us] build professional relationships with other teachers [and] gives us ideas". It was noted that Twitter offered another connection point, with "extra support, a modern way to communicate". Engagement with peers was appreciated, with comments such as: "good interaction with other students" and "many opportunities to get insights, ideas and opinions from teachers, other students and wider community".

The integration of social media in the ITE classroom was valued by PSTs. However, the time required to learn, to access, to download an app, and fit in with existing social media routines outweighed the benefits in this context, as the following comments conveyed: "I see the valuable side of it. But I forgot to use it" and "lots of good teaching resources. I wish I had gotten more into it".

As we unpacked the post reflection data further weaknesses perceived by the PSTs revealed more into our ongoing reflections that we were using the wrong platform. As we further analysed the post reflections data, it was quite clear that we were using the wrong social media platform. All 12 PSTs who completed the post reflection noted that they had not utilised the platform to the best of its capacity. They noted that they did not use it in their personal lives ("I didn't use it very much. I did look at it every now and then"), and that it was not a platform that they indeed engaged with much ("most people don't really use Twitter, so they don't know how to use it. It just makes it more work to do"). Some PSTs noted that it was not an app they invested in downloading even with the integration into their formal learning with reflections such as: "not an app that I have on my phones" and "not an app I would check."

In the PSTs written post-reflections, some underlying assumptions about Twitter, that may have had an impact on perceived value became evident. "I think Twitter is more American and not used as much in Australia. I think Instagram would be more universally used" and "I feel as though Twitter is used more commonly in America, I don't know many people that use it here. Instagram may be a better app to use as it seems to be frequently

used" are representations of PST written reflections. As we investigated further in the focus group, the PSTs addressed this issue as Narelle reflected (Figure 6).
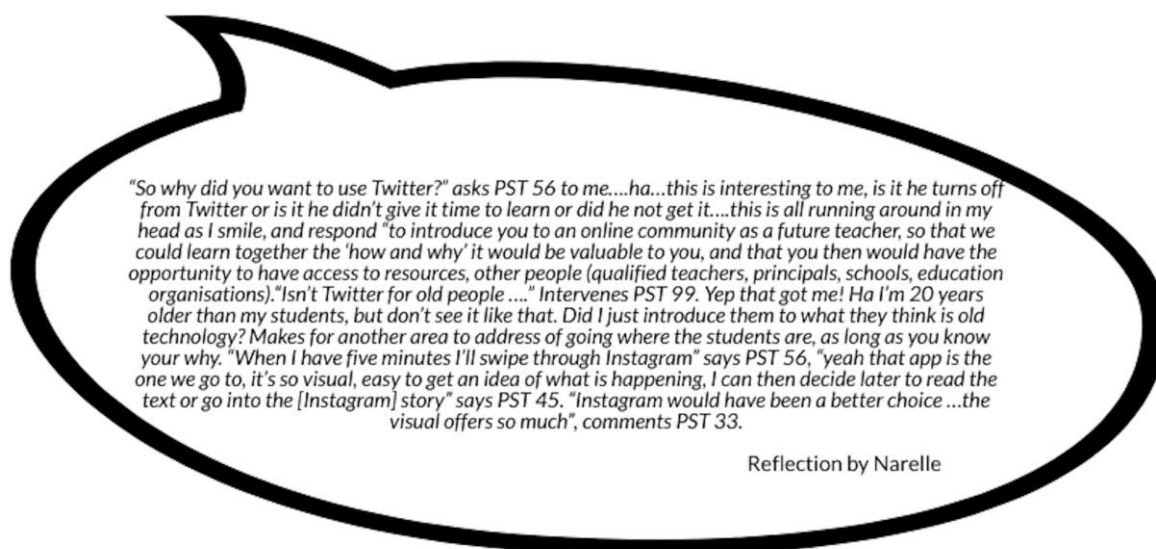

Figure 6. End of Semester Reflections on Student Voice

As the reflections and focus group data were analysed, it was evident that the PSTs preferred Instagram. Familiarity and knowledge of the 'how to' was evident. This was seen as a crucial influence of engagement levels and perceived value. Dominate feedback included: "maybe use a social media that everyone users" and "maybe a different type of social media. I use Instagram a lot". As the PSTs engaged at different low levels we identified several patterns: some only created a profile, others posted one introduction tweet, some just favourited content, and others shared a few tweets over the 12 weeks.

We celebrated this openness of the PSTs to share with us. It was only by valuing the voice of PSTs that we learned that they were interested in engaging in a different social media space. Although shared at the end of the semester, the journey of finding our place here was embraced and promoted critical learnings that can only assist us, and other teacher educators.

Implications
Platform Selection

Clear messages from the PSTs were received in relation to using social media that is aligned to current personal use. The entanglement of personal and professional identity and content was not seen as an issue in regard to the vison of the PSTs of what social media use does and could look like, thus demonstrating an openness to varied constructions of audience, voice, and content (Baym & boyd, 2012). This feedback does offer consideration as to how a personal and professional profile may differ, however, with a curiosity to explore and scaffold digital identity in more depth for future use. Identity and professional voice are therefore considered, with PSTs seeing opportunities for profiles to be merged, or, for a second profile to be created.

Agency

When we invited PSTs to join us on a journey of learning about Twitter as a source for networking, resource access, and sharing their experiences of becoming a teacher, we were very open that this was an opportunity to trial social media in this way. We were promoting a chance to explore personal to professional digital identity transformations, to trouble shoot as a collective, and to utilise the chance to explore with a scaffold of a subject and its content over a semester. As a part of this we engaged in this project to collect the PST voice. This action promoted agency. The PSTs were able to make decisions and take action on behalf of themselves as a part of their discovery. Although Twitter was connected to assessment tasks (for example as a way to produce evidence of a professional dialogue or reflective practice to be used within their professional experience portfolio) there were no assessment marks formally connected. This was a conscious decision on our part as teacher educators, and it was utilised by the PSTs. Twitter use stopped. A combination, we believe, that was not only from the perceived value of the platform itself, but also in managing time as a whole. We also believe that, because Twitter use was not being formally assessed, there was no risk associated to a grade through taking this option. The PSTs acknowledged the pressure of workload across their degree and during the semester as a contributor to their decision to engage with Twitter. The stress of study facilitated boundary setting by the PSTs. This feeling of stress is not uncommon in connection to a professional experience subject in ITE (Gutierrez et al., 2016; Mahmoudia & Özkan, 2016; Vickery & Gray, 2014). Upon understanding the complexity and the PST perspective, we acknowledged this setting of boundaries and applying time management strategies that we had so openly spoken about in class.

Mindful Choices Verse Non Engagement

PSTs made the explicit decision not to download a Twitter app onto their phone. This was a conscious decision, once more displaying agency. PSTs did not wish to blur boundaries in regard to time and space (Baym & boyd, 2012). PSTs selected to access Twitter via the website rather than through apps that make access easier via handheld technology such as, smartphones and tablets. This action, the PSTs noted, was a mindful choice, not a sign of non-engagement. It was a conscious choice connected to perceived value for them in regard to time (time it takes to download, learn, access, and to add to already excising social media routines, and to learn within already heavy workloads across study, personal and work commitments) and space (space on devices, and cognitive space to find, download, and to learn a new platform). This is important to note from a teacher educator(s) perspective looking to integrate social media into the ITE learning context; access and equity are not just about the physical access to devices and platforms, but also the PSTs view of access and equity in regard to time and space.

Conclusion

We, as the authors, of this paper both embraced the learning experience to invite PSTs to use social media to connect, extend, and expand professional connections. Through weekly integration into ITE subjects, Twitter was scaffolded from the 'how to' steps, to guided curriculum connections, including questions to support reflective practice and links to meeting teaching standards via trouble shooting and modelling teacher and cognitive

presence. Twitter was seen as a way to utilise the layers of social media, that is, the connection, curation, continuity and community aspects of networked learning communities. In enacting this approach, we wanted to support the use of authentic social media with PSTs as they develop their professional identity and move into being graduate teachers. Thus, addressing what Carpenter and Morrison (2018) detail as connecting to the social and mobile reality of what they will encounter after graduation in educational contexts.

We were not naïve to the fact that Twitter would not be a preferred or familiar social media platform. We did think, however, that we could help with the unfamiliarity of utilising social media for professional use and especially what affordances comes with Twitter for PSTs (Carpenter, 2015; Carpenter & Morrison, 2018; Hyndman & Harvey, 2019; Lemon, 2016; 2019; Nielsen et al., 2013). Conversely, the PSTs had another reaction. They did not want to invest in the learning of an unfamiliar social media platform such as Twitter. Although they supported the ideas behind making connections, gathering resources, generating connections and extending networks at this particular period in time of learning to be a teacher, the PSTs did not wish to take up the opportunity. Instead the PSTs offered an alternative. Instagram for them was an online space they were personally engaging in and has the affordances of the visual narrative. Instagram was already downloaded on devices and was a part of regular social media patterns of use, including the '5 minute scroll' when at a loose end, and was a part of content contribution rituals. Thus, the platform emerged as a far more appealing space to explore in the future.

The valuing of PST agency and voice, consciously embedded in this study, supported the findings and allowed us to go on this journey of discovery with the PSTs as teacher educators. We embraced this experience as a contribution to our larger study of the place of social media to support PSTs on professional experience, and also to the field and those who are also embarking on the use of social media with PSTs. We share with an openness and curiosity that contributes to the understanding of what blurry boundaries of social media use can look like when navigating social media for learning in ITE, and higher education.

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